Cognitive archaeology: What people thought in the past, when they thought it, how they came to think it, and how that affected other things

- Cognitive archaeology: Origins and development of modern human thinking abilities
  - When did people start thinking like we do, why, how, etc.
- Cognitive archaeology: Content and influence of thought, as opposed to environment, economics, etc.
  - What religious ideas have people had, why, and how did that affect their lives and developments in their societies?
  - How did people understand and explain their world, both the physical world and the social (economic, political, etc.) world?
    - that is, what have people's ideologies been?

- In part, this is a reaction to the excesses of the New Archaeology and the processual approach, which tended to emphasize
  - adaptation to the environment
  - economic or material determinism
  - a systemic view of society in which subsystems or subgroups acted in certain ways in response to certain conditions
- Reacting to this solely materialist focus, the cognitive archaeology approach emphasizes individuals and what they think as being of interest and having a causal role
  - in order to understand what people were doing in the past, cognitive archaeologists say you have to understand what they were thinking
  - their cognitive abilities (in the case of very early humans who may or may not have been fully modern in their psychology)
  - their ideology and cosmological framework for the world
  - which shapes their understanding of and response to conditions they encounter

- several areas, which blend together somewhat
  - identifying symbols and their meanings
  - First, some terms
    - **Sign**: something that stands for (means) something else
    - **Referent**: what the sign stands for
    - Several types of signs:
      - **Icon**: a sign that resembles its referent
        - a portrait is an icon of that person
        - a little picture of a printer on your computer screen is an icon of your printer
        - a picture of a person wearing a dress signifies (in our culture) a female; on a door, it implies that the room is for females
      - **Index**: a sign that correlates to its referent
        - it “indicates” the referent somehow
        - a grimace “means” pain
        - pointing at something indicates that thing
– **symbol**: a sign with no inherent connection to its referent; the relationship is arbitrary
  – you generally have to learn what the referent is from someone who knows it
  – a red octagon outlined in white means “stop”
  – most speech is symbolic, in that the sounds have no particular relationship to the meaning
    – “dog” in English, “perro” in Spanish, “hund” in German….
  – consider the symbolism in a stained-glass window in a gothic Catholic church
    – saints hold objects that identify who they are, but you have to know the symbols to know what story the window depicts
  – as Kelly & Thomas point out, identifying and deciphering symbols in archaeological material is difficult
  – they say we generally depend on ethnographic analogy
    – sometimes true, as in the Hopewell peace pipe example
      – we know from ethnography and history that recent peace pipes were thought to symbolize weapons
        – usually arrows
      – we see that Hopewell pipes physically resemble the hooks of atlatls (spear throwers)
      – so we suspect that maybe these were also pipes that symbolized weapons
        – but a different weapon that was no longer used in North America in historical times
      – and that these Hopewell symbolic weapon pipes maybe functioned similarly to the historical peace pipes
        – in mediating relationships between potentially hostile people
      – without the ethnographic analogy, we would never even have thought of this, much less been able to argue for it
  – But sometimes we may be able to figure things out without ethnographic analogy
    – when the images are sufficiently representational that we can be pretty sure of what the iconic (literal) referent is
    – then we may be able to make educated guesses about what the symbolic meaning was
      – based on the characteristics of the referents
        – as in assuming that representations of lions or eagles have to do with fierceness and danger
        – we can’t be sure, but it is a reasonable hypothesis
      – based on which referents are used with which others
      – based on the context of the referents
        – as in plants or animals that are represented far from where they would normally live
          – maybe they were exotic, powerful, special, mysterious…
        – but some ethnographic analogy always makes for a much stronger case
    – Ritual and religion
      – Religion is hard to define, although we all think we know it when we see it…
        – One’s understanding of the supernatural and one’s relation to it
      – Ritual: stereotyped activities carried out in accordance with religion
        – often intended to influence the world by influencing the supernatural
    – **Ideology**
a system of ideas about society, culture, politics
− a set of ideas that makes sense of social organization, power relations, differential wealth, etc.
− often manipulated to advance individual or group interests
− to legitimize the status quo or to justify changing it
− features might include
  − the divine right of kings
  − democracy
  − free-market capitalism
  − socialism, etc.

− **Iconography**
  − one’s system of visual symbols and relations among them that express ideas, even if only in a vague way
  − usually art, decoration, sculpture, etc.

− **Examples**
  − origins and development of modern cognitive abilities
    − the shift from early *Homo* Oldowan style tools to *Homo erectus* Acheulean tools (handaxes, etc.)
      − made to a specific shape
      − more visualization and planning required
      − that is, increasingly complex cognition
    − Handedness in stone tool manufacture - origins of modern brain structure
      − research done by Nick Toth
        − experimental archaeology research shows that you can distinguish whether the maker of stone tool was right-handed or left-handed
        − it affects which hand the tool was held in (the non-dominant hand)
        − we can tell which flake scars were made first, and which later, by the way they intersect and overlap on the tool
        − these form typically right-handed or left-handed patterns
    − No right vs. left-handed bias detected in earliest Oldowan pebble tools
      − around 2.5 mya
      − made by early members of the genus *Homo*, or late Australopithecines
      − thus they probably lacked the strong "lateralization" of brain function found in modern humans
      − so they probably thought in a very different way
    − but handedness is apparent in Acheulean tools
      − starting around 1.8 mya
      − made by *Homo erectus* and early *Homo sapiens*
      − mostly right-handed
      − thus probably the strong lateralization of modern humans had appeared
      − goes along with larger brains, longer juvenile dependency, reduced sexual dimorphism that probably means long-term male-female pair bonding
      − suggests a shift towards a human way of thinking
- Magdalenian figurines
  - Venus of Willendorf, etc.
    - mostly female, but some male and many indeterminate
    - all ages and body shapes
    - some faceless, some not
    - some with headgear or hairdos
  - what were the creators of these figurines thinking?
    - ritual, fertility, etc.?
    - sex, made by men?
    - pregnancy, made by women?
    - different things in different times and places?
  - before jumping to conclusions, consider an example from the much later site of Catal Huyuk, 7400-6300 BC
    - fat, naked female on the front, like a Venus figurine
    - skeleton on the back
    - clearly, something more complex is going on with the meaning here than just iconic representation of females
    - so we should be careful about assuming a straightforward meaning for other examples, too
  - some animals or seemingly anthropomorphic animals
    - are they meant to be representational, or were they intentionally anthropomorphized to make them mythical/supernatural beings?
- Alexander Marshack's analysis of the La Marche antler
  - Magdalenian (Upper Paleolithic) cave site, 13,000-12,000 BC
    - is this evidence of observing phases of the moon?
    - if so, it suggests modern-like thinking
    - problems of objectivity and interpretation, alternate explanations of marks
  - reconstructing a given culture’s ideology, religion, etc., and considering its effects or implications for the society
- Chavín iconography (1000-200 BC)
  - jungle plants and animals
    - unlikely to be due to Chavín people coming from the jungle
    - suggests references to powerful shamans and animals of the jungle?
      - due to Chavín being on a route from the highlands towards the jungle?
  - San Pedro cactus
  - Shamans transforming?
  - drug paraphernalia
  - complex, esoteric iconography; reversible images…
  - travelling oracle?
- Conrad and Demarest interpretation of Chimu state's expansion (1000-1470 AD)
  - capital at Chan Chan is composed of a series of walled compounds, each built by a successive ruler
  - each continued to operate after his death, to revere his remains
- supported by the lands that the ruler had conquered
- each new king thus had to expand the state in order to finance his own royal compound
- this is known in part from ethnohistoric accounts, supported by the archaeological evidence of the compounds
- if correct, it is a great example of how ideas about cosmology and religion had a profound effect on the "real world" of secular power, militarism, the expansion of a state or empire, etc.
- Moche iconography (1-800 AD)
  - straightforward weaving shop scenes, etc. look like representations of real life… probably
  - if so, they allow some fairly straightforward interpretations
  - in this case, fairly large-scale textile workshops with weavers and high-status overseers
  - probably many other useful details to be teased out
  - warfare scenes: realistic, or ritualized, or mythological?
- Chris Donnan: presentation theme (and other themes not discussed in class)
  - Figures A, B, C now all found in actual burials
    - some multiple examples of the same "figure"
    - with the appropriate paraphernalia
    - suggests that the scenes were actually carried out by high-status people whose role in life was largely to be that particular figure in these rituals
    - that implies a lot about the ritual nature of high status among the Moche
    - and the nature of the Moche state
    - not to mention the real life experiences of at least some Moche people
- Donnan has been doing this all through the processual archaeology years, when some belittled his work as unscientific "art history"
  - He is still at it, and does not particularly describe himself as a "cognitive archaeologist", either
    - what does that mean about all these labeled "types" of archaeology?
- sacrifice scene, throne and prisoners scene
  - corresponding architecture, copper cups, sacrificed bodies…
- so we are beginning to see the outlines of ritual practices
  - which must have been a major, shaping feature of life and political development for the Moche
  - we really could not properly understand this society without considering these rituals and the ideas around them
  - adaptation to the environment and economics would just not explain the Moche