Summary, looking back and forward
Course organized around four revolutions:
Human, settled agriculture, industrial, unnamed one (your challenge)

Today: last of discussions of first and fundamental: humans emerging as an inventive aggressive species
Ultimately a question about “human nature” (note wording: are humans included? Basic separation from rest of animals)
Startling and shocking discovery of human antiquity – so all of history gets redefined, including tech in history
You read Mumford on “Technics and the Nature of Man” – celebrates creativity
End of chapter 7: the extinction of the large mammals, incl. maybe Neandertals (sp)
But also implies networks
Theory of demographic imbalance (2 % mortality difference, 30 generations or a millennium) – Lewis Williams 88
Also a creative, fast-growing population – “human revolution” “creative explosion” (Lewis Williams 96)
“creative destruction” (Joseph Schumpeter, contemporary of Veblen)
http://www.stps.metu.edu.tr/stpswp/series05/0509.pdf
To learn more about “creative destruction” see: Creative Destruction.

Second: Neolithic Rev.
Usually called “agriculture”
Christian stresses that it is something more: domestication and settlement
By definition needs a set of technologies that can feed people without hunting/foraging
A suite of technologies, a system
Christian also stresses that in hybrid form it lasted a long time: settled agr. with nomads, foragers

Think: Roman Empire and Goths

Think: America and Australian indigenous peoples; Afghanistan

Christian also stresses that this change is not necessarily progress

Raises deep question of free will: why don’t humans make inventions, new technologies that make them happier and better off? (unanticipated consequences, foreclosing options)

Third: emergence of a civilization based on industrial production fueled by fossil fuels

Latter doesn’t get enough attention: displacement of organic sources (wind, water, muscles of animals and people)

Vast increase in productivity; vast increase in disparities

Marx: “prehistory” is over, it’s a new human condition

The unnamed revolution beginning around turn of 20th century

“information” is part but not the whole

Mumford at beginning of “technics and human nature” – an artificial world – no more beyond the human

Remember Christian’s emphasis on geographical consolidation, networks, from many to one

Keep asking yourself this question as we proceed: what is it?

Keep two things in mind:

Problem with term “revolution” no matter what the modifier

Borrowed from science, then to politics, then to “industry” (Toynbee)

Image from storming of Bastille, or maybe Russian Rev of 1917: you have a government, you overthrow it, kill the powerful and install new leaders

Christian’s comments on human revolution – it didn’t erupt in Europe in 40000 to 50000 BP

Longer development in Africa (McBrearty and Brooks article; also cited by L-W 96)

Neolithic Rev
It took a long time; they were not aware of what they were doing (consciousness); many subinventions go into the big one of “agriculture”; and things accumulate (foraging lasts a long long time; agriculture lasts into present; means continue to be used, are not displaced)

But inarguably a change in human condition

Second thing to keep in mind: what changes is not just material means but understanding of ends around which the means are organized - teleology

Means accumulate but meanings succeed each other – Gauguin: where are we coming from, where are we going, what does it mean? (In Boston Museum of Fine Arts) – ultimately unanswerable questions, or rather answers change

To learn more about Paul Gauguin’s Where Do We Come From? What Are We? Where Are We Going? See: Gauguin: Where Do We Come From? What Are We? Where Are We Going?

These questions do not appear in hierarchical order (Maslow) – physical then spiritual needs

In fact they define the human revolution: symbolic mastery

Another energy source: psychic energy, what you care about, are willing to live and die for

Lots of survival technologies: weaving, pottery, dwellings, hunting tools

First sign of human is not fire, axes, but jewelry, art

meaning in kinship, tribe, fertility, a spirit world

Early civilizations: role of organized state, ruler and priests – later combines with monotheism - we will read about Christian belief in Virgin Mary as a source of energy (Henry Adams)

Industry – “progress” defined either as democracy or as production, wealth

Now: sustainability, back to living with nature - ?

Talk about Clan of Cave Bear in this light – their tools, their ends

Symbol, art, abstraction

Language: here and now, life, death, strength, birth, sex, food

Physical weakness of the shaman

Pidgin-Aurignacian – communication - simple

“We need to distinguish between those kinds of art that can interact to produce viable new forms and those that cannot evolve into other types” (Lewis Williams 89)

Generative grammar analogy
Could body decoration (red ochre, jewelry) evolve into two D images on a cave wall?
They signify clan membership and also stages of kinship (puberty, marriage, childbearing)
Animals that hunt other animals are singled out for display
Hunting associated with supernatural realm
Neanderthals did not take over pictures or carvings – body-painting does not evolve into image-making – could not remember altered states of consciousness or manipulate that imagery; could not imagine an alternative reality (spirit world); could not recognize connection between 2D and 3D
Nor burial with elaborate grave goods, nor advanced hunting strategies
Larger social networks
Face to face exchanges of artefacts and information – beyond face to face
Burial with lots of grave goods indicates social networks
Lewis Williams’ argument that the Aurignacians actively cultivated the characteristics of their lives that distinguished them (set them “above”) the Neandertals –
Neandertals coping with new arrivals around 45000 to 35000 BP – cave art as a form of social distinction
Cave art: what they care about – quest for meaning -
Cave painting as needing many technologies (Mithen mentions some)
Caves were handy – earth art is universal but not cave art – sealed in time by ice ages - also portable art
The dancing sorcerer image, from Trois Freres cave, Ariege
In a very hard to reach part of the cave – part human, part animal
Font de Gaume
15-17000 BP – warmer then
The most extended frescoes are at the back, difficult to see
Sophistication of the images
Perspective: twisted, to show movement
“3-D”
Cinematic effects
Curves of stone make belly of horses
One leg serves for both bison and deer
Mastery off observation of habits, shapes
Two colors/ polychromatic, only one still open
Iron oxide is red, manganese dioxide powder is black

Four types of images: animals, stick people, geometry (tectiforms), hand
Ways of making images: hand/fingers, brush, blowpipe

100% humidity, necessary to keep paint on walls, mixed with water

Les Combarelles
Very narrow
600 engravings mainly horses 52 of the anthropomorphic
15000 BP
Discovered 1901 authenticated by Abbe Breuil
Flint used to engrave
Calcite over engraving

Lascaux – “Sistine chapel of prehistory” – shaped like a sanctuary
Discovered 1940, closed since 1963
Lascaux II
“light show” of guide
¾ view, overlaps of herd
Forelegs of cow are stone
Stylized animals: horses have small head, deers have big antlers

The shaman? Sorcerer?

Cougnac
Pillar in middle
Music, on stalagmites and tites – flute found
Inner sanctum
Broken stalagmites/tites en route
Great drawing showing how stone shapes are used for legs of ibex
Wounded human figures on animals
Many “blazes” on animals
Drawn 25000-27000
Finger marks 14000

Pech-Merle
Very hard to get to, sealed up 12000 with return of cold weather
16000 BP black frieze’
Black frieze: horse, bison, mammoth
Also mammoth and auroch (black frieze)
One artist, knew order, sketched first
Elongated head of bear so you see it as if from an angle

Horse done 24000 BP – hands – red dots, ochre, spitted dots
Also aviform and tectiorms and
One line does a mammoth
Sketched with finger first
Claw marks of cave bear - teeth
Footprint of children, teenage boy

Chauvet disc. 1994 by 3 spelunkers, one named Chauvet – in Rhone valley

Now active searching: e.g. three friends (two men, one named Chauvet, one woman) feel a draught, remove some rubble (modern entrances often not the prehistoric ones), goes down 10 m tunnel, find chamber, get a ladder

See mammoth, rhino, dots, handprints, horses heads, skull of a dave bear with its canine teeth hooked over an edge, even deeper find lion heads

“we were seized by a strange feeling. Everything was so beautiful, so fresh, almost too much so. Time was abolished, as if the tends of thousands of years that separated us from the producers of these paintings no longer existed. It seemed as if they had just created these masterpieces. Suddenly we felt like intruders….we were weighed down by the feeling that we were not along; the artists’ souls and spirits surrounded us. We thought we could feel their presence; we were disturbing them.” (imagine similar feelings in Chauvet 27000) – in book pub. 1996 quoted in Lewis Williams 17

32000-30000 yrs ago – 22 dates

Earliest known cave paintings

2nd occupation 27000-26000 yrs BP (torch wipes, no paintings tho) – 7 dates

Maybe a third around 22,800

Foot and animal prints – foot from earliest known anatomically modern human

Esp. bears

Hearths set up to produce wood charcoal for coloring (also illumination)

Step dug - flints

Levi-Strauss spoke of myth growing “spiral-wise” until the “intellectual impulse which has produced it is exhausted.” (in Structural Anthropology 1963) UP nexus of mental states, fixed imagery, social relations and caves lasted until 10000 BP, long after the demise of the Neandertals – thereafter locus of spirit world was built above ground
Clan of the Cave Bear assignment: ask how literature helps imagine a whole way of life, with everything integrated

What are other ways to accomplish this? biographies