The Neolithic Revolution and the Birth of Civilization

*Homo sapiens* emerged in Africa 250,000 years ago. 100,000 years ago they began to migrate.
East African Discoveries

- Hominids: a group that includes humans & their closest relatives. All walk upright on 2 feet.
- Donald Johanson discovered “Lucy” in 1972
- “Lucy” is around 3 million years old
### Hominids

**http://www.youtube.com/watch?v=vD4CQ5ppm_A&feature=related**

---

## AT A GLANCE: EARLY HUMANS AND THEIR ANCESTORS

<table>
<thead>
<tr>
<th>DATE</th>
<th>PERIOD</th>
<th>HOMINID EVOLUTION</th>
<th>MATERIAL CULTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 million</td>
<td>Pliocene</td>
<td>- Fragments found in northern Kenya; possibly <em>Australopithecus</em></td>
<td></td>
</tr>
<tr>
<td>3.75 million</td>
<td>Pleistocene</td>
<td>- <em>Australopithecus</em> genus, inc. Lucy (east and southern Africa)</td>
<td>- Tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <em>Homo habilis</em> (eastern and southern Africa)</td>
<td>- Stone artifacts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <em>Homo erectus</em> (Africa)</td>
<td>- Use of fire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <em>Homo erectus</em> thought to have moved from Africa into Eurasia</td>
<td></td>
</tr>
<tr>
<td>500,000</td>
<td></td>
<td>- <em>Homo sapiens</em> (archaic form)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Remains of Peking Man (<em>Sinanthropus</em>) found at Zhounkoudian</td>
<td></td>
</tr>
<tr>
<td>130,000–80,000</td>
<td></td>
<td>- <em>Homo sapiens</em> (Africa and western Asia)</td>
<td>- Stone artifacts</td>
</tr>
<tr>
<td>100,000–33,000</td>
<td></td>
<td>- Neanderthals (Europe and western Asia)</td>
<td></td>
</tr>
<tr>
<td>40,000</td>
<td>Aurignacian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,000</td>
<td>Gravettian</td>
<td>- Human remains of the Upper Paleolithic type, <em>Homo sapiens sapiens</em> (25,000) found in China</td>
<td>- Tools include long blades, First passage from Siberia to Alaska</td>
</tr>
<tr>
<td>20,000</td>
<td>Solutrean</td>
<td></td>
<td>- Venus figures (25,000–12,000)</td>
</tr>
<tr>
<td>17,000</td>
<td>Magdalenian</td>
<td></td>
<td>- Chauvet cave, France (18,000)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Lascaux cave paintings (c. 15,000)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Altamira cave paintings (c. 13,550)</td>
</tr>
</tbody>
</table>
A long time ago, on a continent far, far away…

- **Paleolithic Age** (2.5 million years ago until 10,000 BCE)
  - Humans traveled in small hunting-gathering groups
  - Migrated from origins in East Africa to Eurasia, Australia, and the Americas
    - Mobile and adaptive to various climactic and geographical settings
  - Use of **fire**: to aid in hunting, protection against predators, and adapt to cold environments
  - Mostly hunter-gatherers; some groups exchanged people, ideas, food, and goods
    - **DIFFUSION!!!!!!!!!!**
Paleolithic Culture

- **Hunting-gathering**
  - They gathered: wild nuts, fruits, berries, & grains.
  - They hunted: different local animals and fish

- **Paleolithic people lived in small bands of 20-30 and were nomadic**

- **Spread to Europe, Asia, Australia, & the Americas**

- **Gender division of labor**
  - Men: hunting, fishing, defense
  - Women: gathering, making medicine
Neolithic Revolution

- **Neolithic Revolution** began after the last Ice Age (10,000 BCE)
- Humans began settling and adapting to their environments
  - Some remained hunter-gatherers
- Switch to **agriculture** and settling in an area created a more reliable food supply (but not diverse)
- Begin using domesticated animals for food and labor
- Settlements lead to population increase
  - **Food surplus** led to specialization of labor (division of labor)
Neolithic Revolution

- Transformation to agriculture was slow: 1,000 years
- Farming developed in the Middle East
  - Fixed dwellings, domesticated animals, regular farming, division of labor, and men holding power.
- Agriculture developed in 4 different areas around the world around 8000-7000 BC

<table>
<thead>
<tr>
<th>8000 B.C.E.</th>
<th>6000 B.C.E.</th>
<th>5000 B.C.E.</th>
<th>4000 B.C.E.</th>
<th>2000 B.C.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7000 First town at Jericho</td>
<td>5600 Beans domesticated in Western Hemisphere</td>
<td>5000 Domestication of maize (corn) 5000–2000 Yangshao culture in north China</td>
<td>4000–3000 Development of writing, bronze metallurgy, wheel, plow in Middle East 3500–1800 Sumerian civilization 3100–1087 Founding and flowering of Egyptian civilization 2500–1500 Indus civilization in south Asia</td>
<td>1850 Origins of Shang kingdom in China 1800 Formation of Babylonian Empire in Middle East 1700–1300 Rise of village culture in Mesoamerica 1600 Beginning of Indo-European invasions of India and parts of the Mediterranean and Middle East 1600 Spread of civilization to Crete (Minoan) 1250 Moses and Jewish exodus from Egypt (according to Jewish belief)</td>
</tr>
</tbody>
</table>
The Spread of Agriculture

- Pastoralism
- Sub-Saharan Africa: root and tree crops
  - Northern China: millet
  - Southeast Asia, to China, India, islands: rice
  - Mesoamerica, Peru: Maize, manioc, sweet potatoes
Neolithic Revolution Society

- Social Differentiation
  - Specialized occupations
  - Regional exchange of goods
  - Communal ownership
  - Women lose political and economic roles
Technological Change

- **6000 B.C.E.** pottery & basket-making
- **Bronze Age:** 4000 B.C.E. Discovery of metal
  - 3000 B.C.E. Metalworking was commonplace in the Middle East replacing stone tools
  - Spread to Asia, Africa, and Europe
- **Around 4000-3000 BC** writing developed
  - Recorded history could be made, holding of power, larger states, & cultural exchanges
- **Population**
  - Preneolithic: 5-8 million
  - By 4000 B.C.E.: 60 or 70 million
First Towns or Early Civilization

- Jericho
  - Jordan River
  - Urbanized by 7000 B.C.E.
  - Cultivation of wheat, barley
  - Also hunting, trading
  - Building
    - Wall and ditch
    - Brick houses with plaster hearths
    - Stone mills
- Rule by elite
- Çatal Hüyük
  - c. 7000 B.C.E., southern Turkey
  - Oldest civilization on earth
  - Agriculture, commerce
  - People lived in simple mud brick houses
  - Shrines
  - 32 acres with a wall
  - Culture
Civilization

- What are the characteristics of a civilization?
Characteristics of Civilization

- **Urban focus**: cities
  - Political, economic, social, cultural, and religious development
- A distinct **religious structure**
- **Political and military structures**: an organized government
- A **social structure** based on economic power
  - Kings, upper class, priests, artisans, craftspeople, slaves...
- The development of **writing**
- Forms of significant **artistic and intellectual** activity
  - Religious monuments, statues, etc...
The 4 Initial Centers of Civilization

- Starting *around* 3500 B.C.E., major civilization developed in 4 initial centers:
  - 3500 BCE - Mesopotamia – Tigris & Euphrates Rivers
  - 3000 BCE - Egypt – Nile River
  - 2500 BCE - India - Indus River
  - 2200 BCE - China - Huang He (Yellow) River
- These were the most densely populated parts of the world.
Other Areas Of Civilization

- The Americas:
  - Olmecs, Mayans, & Aztecs
    - Located in Mesoamerica (present day Central America → Mexico)
  - Incas
    - Located in South America in/near the Andes Mountains (present day Ecuador & Peru)
The Initial Centers

- Mesoamerica (Mayas, Aztecs, etc.)
- Andean Region (Incas, etc.)
- Mesopotamia
- Nile Valley (Egypt)
- Indus River Region (Harappa)
- Huang Ho River Region (Shang, etc.)
Mesopotamia

- Mesopotamia means “land between rivers.”
  - Refers to this area being between the Tigris and Euphrates rivers.
  - Also referred to as the “Fertile Crescent”
- Farming in this area required communication & coordination between communities, thus leading to beginnings of complex political structure.
- Mesopotamia was familiar w/ bronze and copper (metals); also had invented the wheel for transportation
Mesopotamia

- 1st civilization and developed independently
- The need for **irrigation** served as a basis for complex political structures

**Sumerians**
- Developed a **cuneiform** alphabet
- Art: statues and painted frescoes
- Founded astronomy & improved mathematics
- Religion: polytheists with a patron god for the city. **Ziggurats** temples.
Writing

- **Sumerians** were first to invade this region.
  - Developed a **cuneiform alphabet** (first *known* case of human writing)
    - alphabet used pictures to represent objects; later shifted to geometric shapes to symbolize spoken sounds.
Cuneiform Writing
Culture

- Began as theocracies and moved to kings
- Mainly agricultural
- Woolen textiles, pottery, and metalwork were important and known
- Mesopotamia began to trade with India and the Mediterranean cities
- Three Classes: Nobles, commoners, & slaves
Religion

- **Sumerians:**
  - Developed complex religious rituals
  - Massive towers were the first monumental architecture for this civilization
  - Sumerians were **polytheistic** – they believed in multiple gods. (**monotheistic** = belief in one god).
  - They believed in the divine force of “natural” objects (nature; examples: trees, mountains, rivers)
Ancient Sumerian Ziggurat

- Ziggurat – temple; “mountain of the Gods”
Religion and Literature

- An: god of the universe & sky (most important)
- Enlil: god of the wind & Enki: god of the earth
- Ninhursaga: goddess of soil, mountains, & vegetation
- The poem, “The Epics of Gilgamesh”
  - Records the exploits of King of Uruk
  - Gilgamesh – part man, part god and his hairy beast friend, Enkidu set off for heroic deeds.
  - When Enkidu dies, Gilga looks for immortality, but fails...
Mesopotamia Continued

- Sumerian formed **city-states**
  - Eridu, Ur, Uruk, Umma, and Lagash
  - The cities were surrounded by walls
  - Mud bricks were used to make houses & buildings
  - Ruled by king who claimed to have divine authority
  - Court system and military
  - Kings, nobles, and priests controlled most of the land – worked on by slaves (taken through war)
  - Region was hard to defend – Sumerians defeated by Akkadians (Sargon I) then by the Babylonians
Semite

- A member of any of various ancient and modern people originating in southwestern Asia, including Akkadians, Canaanites, Phoenicians, Hebrews, Arabs, and Ethiopian Semites.
Hammurabi

- Babylonians:
  - Extended their own empire into the Middle East.
  - King Hammurabi introduced the most famous early “code of law” (Hammurabi’s Code).
    - Gives us an insight into their culture
    - Shows a society of strict justice
    - Penalties based on the social class of the victim
  - Hammurabi’s Code established rules of procedure for courts of law, regulated property rights, and regulated the duties of family members.
  - Example: “If the slave of a free man strikes the cheek of a free man, they shall cut off the slave’s ear.”
Babylonian Empire: In 597 B.C., the southern kingdom of Judah was conquered by Nebuchadnezzar, the king of Babylon. Judah was placed in subjection. However, Zedekiah, king of Judah, planned a revolt along with Edom, Moab, Ammon, Tyre, and Sidon contrary to the preaching of Jeremiah (Jer. 27). Nebuchadnezzar returned and lay siege to Jerusalem and, in 587 B.C., he destroyed the Temple and carried the people away as captives (2 Kings 25:1-21; 1 Chron. 6:15). The vessels of gold and silver were taken from the Temple and placed in Nebuchadnezzar's temple.
Hammurabi’s Code
## Babylonian Numbers

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>43</td>
<td>44</td>
<td>45</td>
<td>46</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>49</td>
<td>50</td>
<td>51</td>
<td>52</td>
<td>53</td>
<td>54</td>
</tr>
<tr>
<td>55</td>
<td>56</td>
<td>57</td>
<td>58</td>
<td>59</td>
<td>60</td>
</tr>
</tbody>
</table>
Egyptian Civilization

- Farming by 5000 B.C.E.
- Civ. by 3000-3200 B.C.E.
- Egyptians benefited from the trade and influence of Mesopotamia → **DIFFUSION** of ideas/technology!
- Egypt not as open to invasion as Mesopotamia.
  - Located in NE Africa
  - Nile is the longest river in the world
  - Leaves black sediment after the flood from regular schedule flooding
  - Egypt more rural
Delta

- About 100 miles before the Mediterranean the Nile splits and forms the Delta
- The Delta area is known as Lower Egypt (Even though it is North)
- Natural barriers for protection
Egypt

- Maintained a unified state throughout most of its history
- Pharaoh possessed immense power
  - Godlike status who had massive tombs built: pyramids (starting in 2700 B.C.E.)
  - Regional governors
- Assisted in developing African culture in Kush (present day Sudan)
- Egyptian science or alphabet was NOT as elaborate as Mesopotamia, though mathematics was more advanced.
  - Egyptians produced the idea that a “day” was divided into 24 hours.
- Lively art
Ancient Egyptian Pharaohs
Egyptian Culture

- Hieroglyphic alphabet
  - Pictograms, phonetic
  - Papyrus
  - Monopolized by priesthood
- Medicine
- Religion
  - Isis, Osiris, Horus
  - Cycle of life, annual rise and fall of Nile
Menetho

- An Egyptian priest and historian who lived in the 3rd century B.C.E.
- He divided Egyptian history into 31 dynasties of kings.
  - 3 major kingdoms: Old, Middle, and New with intermediate periods of instability
    - The Kingdoms were periods of long-term stability with strong monarchical authority, competent bureaucracy, freedom from invasion, the construction of temples and pyramids, and considerable intellectual activity.
● Old Kingdom
  ● 3rd-6th dynasties of Egyptian Kings
  ● Lasted from 2686-2125 BCE (invasion from Palestine ended it)
  ● Age of prosperity and splendor
  ● The capital was Memphis
  ● Known for the construction of pyramids

● Middle Kingdom
  ● Finally in 2055 stability was restored, until 1650
  ● Characterized by a new concern on the part of the pharaohs for the people.
  ● Moving from a god-king to more like a shepherd
  ● Built public works and provided public welfare
New Kingdom

- After the Hyksos were thrown out Egypt expanded into Palestine and Syria to become a powerhouse (international contact)
  - The “sea people” threw them out of Palestine and back into Egypt's borders
- 1570-1085 BCE
- Amenhotep IV tried to convert Egypt to monotheism
- Ramses II tried to reestablished Egypt's borders
- The New Kingdom fell in the 20th dynasty
- Egypt then was dominated by the Libyans, Nubians, Persians, Macedonians, and then became a province of Rome
Indian Civilizations

- India:
  - Civilization emerged along the Indus River by 2500 B.C.E.
  - Several large cities, including Harappa & Mohenjo-Daro
  - Trading with Mesopotamia
  - Had own alphabet and art forms
  - Invasions by Indo-Europeans resulted in destruction of this culture, so we know little about their ancient nature or influence on India!
Indus River Valley Civilizations

- Developed by 2500 B.C.E.
- Several large cities including Harappa and Moorhen Daro
- Harappan writing has yet to be deciphered leaving questions as to the civilization

Cities
- Built on a square grid surrounded by walls with main roads (signs of a centralized government)
- Large citadels in the center of the capital cities
- Advanced agriculture: wheat, rye, peas, & possibly rice
- Trade with Mesopotamia
I.R.V. Cont.

- Major trading centers in the cities of Harappa
  - Jade from China and Jewels from Burma
  - Used seals to secure trade contents
- Dominated from priestly class
- Resisted innovation (ex: new weapons)
- Natural disasters or climate change (desertification) may have brought them to an end
- Pottery changes suggest possibly military defeat (maybe Aryans)
- Priests may have lost control
Chinese Civilizations

**China:**
- Civilization along the Yellow River (Huang He River)
- Isolated from the rest; though there was *some* trading w/ India & Mesopotamia
- Learned how to ride horses and were skilled in pottery.
- Already were using bronze (metal) and by 1000 B.C.E. were using iron.
- Most people lived in small houses made of mud bricks.
Yellow River Civilization

- Part-fact, part-fiction history of kings
- An organized state emerged due to irrigation
- By 2000 B.C.E. The Chinese developed advanced technology, an elaborate intellectual life, art, and an early interest in music
- Rode horses, skilled in pottery, & introduced iron by 1000 B.C.E.
- Writing with ideographic symbols
- Science and Astronomy
Shang

- By 1500 B.C.E. the Shang tribe conquered most of the others in northern China
  - They laid the foundation for Chinese civilization
  - Preceded by the Xia
  - Recent archeological excavations have given new insight
  - Warlike nomadic tribe fighting on horseback & with chariots with bronze weapons
  - Ruled by strong kings
    - Intermediary between supreme being, Shangdi, & mortals who claimed dominion over all humankind
Shang Culture

- Shang rulers bore the ritual responsibility
- Sizeable bureaucracy in the capital, Anyang
- Peasants and artisans governed by **vassal retainers**: “subordinate leaders serving the king and great lords & usually bound to them by personal ties”

  - Vassals collected tribute (usually produce), sent soldiers to the army, and administered justice
- Oracles influenced the beliefs & behaviors and influenced the development of writing
- Ideographs was the key to Chinese identity
MIDDLE EASTERN SOCIETIES
Phoenicians

- Simple alphabet with 22 letter developed by 1300 B.C.E.
  - Predecessor of Greek and Latin
- On the Mediterranean along a 120 mile piece of the coast but set up colonies in N. Africa, Spain, & Sicily
- Rebuilt their major cities after the destruction from the Sea People
- Developed and expanded trade around the Mediterranean & Mesopotamia: purple dye, cedar, glass, and wine
- City of Byblos was a distribution center for Egyptian papyrus and the Greeks took their word Biblos (book) from Byblos
The Hebrews

- Developed first clearly monotheistic religion
- Influenced from Babylonian Civilization
  - Abraham came from Mesopotamia
- Settled near the Mediterranean around 1200 B.C.E.
- Jewish religion and moral code persisted even through periods of domination from foreigners
- Belief and history form the Hebrew Bible
- Stressed God's special compact so no push for converts
Judaism

- Concept of God became less humanlike, more abstract
  - Orderly and just God
  - Ethical conduct and moral behavior
  - Individuals knew what to expect
  - No special contract for rulers (Saul & David Story)
- Christianity and Islam developed from Judaism
Other Middle Eastern Societies

- Lydians introduced coined money
- Hittites 1st Indo-European group to make use of iron
  - 1600 B.C.E. Conquered Babylonians
  - 1200 Sea Peoples destroyed their empire
- Assyrians
  - Located on the upper Tigris River and established an empire by 700 B.C.E.
  - Established 1st systematic library in Ninevah
  - Postal station linked the empire
  - Fought with iron weapons & brain drained the conquered
Citations

- Stearns textbook chapter 1
- Strayer textbook chapter 1
- Spielvogel Western Civilization textbook chapters 1 and 2