History of Horticulture: Lecture 1

Lecture 1
Dating the Past: Geologic, Archeologic, Biologic, and Human Culture

Dating the Past (years ago)

Dating the Past (years ago)
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Dating the Past (years ago)

The Emergence of Man

<table>
<thead>
<tr>
<th>Epoch</th>
<th>Archeology</th>
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| Prehistoric period     | 6.5 - Creation of the Earth  
                           | 10 - Formation of the oceans  
                           | 2 - First life, single-celled algae and bacteria, appear in water       |
| Cenozoic               | 60 - Monkeys and apes evolve  
                           | 40 - Ramapithecus, oldest known primate with apparently human-like traits, evolve in India & Africa  
                           | 20 - Australopithecus, closest primate ancestor to humans, appears in Africa |
| Mesozoic               | 80 - Birds appear  
                           | 80 - Mammals live in shadow of dinosaurs  
                           | 80 - Prosimians, earliest primates, develop in trees                    |
| Paleozoic              | 800 - Evolution of armored fish, first animals possess backbones  
                           | 600 - Small amphibians venture onto land  
                           | 400 - Reptiles and insects arise                                     |
| Earth                  | 4.5 Billion Years Ago  
                           | 4 Billion Years Ago  
                           | 3 Billion Years Ago  
                           | 2 Billion Years Ago  
                           | 1 Billion Years Ago                                                     |
| Creation of the Earth  |                                                                            |
| Formation of the primordial sea |                                                                            |
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                           | 1 - Oldest known tool fashioned by humans in Africa  
                           | 1 - Homo habilis, earliest known hominid to use stone tools  
                           | 1 - Homo erectus, oldest known hominid to use stone tools to make tools |
| Middle Paleolithic     | 800 - Humans learn to control and use fire  
                           | 600 - Large-scale, organized elephant hunts staged in Europe  
                           | 400 - Artistic flutes  
                           | 300 - Oldest known tool fashioned by humans in Africa |
| Upper Paleolithic      | 800 - Humans learn to control and use fire  
                           | 600 - Large-scale, organized elephant hunts staged in Europe  
                           | 400 - Artistic flutes  
                           | 300 - Oldest known tool fashioned by humans in Africa |
| Holocene               | 10,000 - Humans learn to control and use fire  
                           | 8000 - Oldest known tool fashioned by humans in Africa  
                           | 6000 - Large-scale, organized elephant hunts staged in Europe  
                           | 4000 - Artistic flutes  
                           | 3000 - Oldest known tool fashioned by humans in Africa |
| Neolithic              | 10,000 - Humans learn to control and use fire  
                           | 8000 - Oldest known tool fashioned by humans in Africa  
                           | 6000 - Large-scale, organized elephant hunts staged in Europe  
                           | 4000 - Artistic flutes  
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| Agricultural revolution | 10,000 - Humans learn to control and use fire  
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<th>Years Ago</th>
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<tbody>
<tr>
<td>Neolithic Age</td>
<td>he 8000s</td>
<td>Accuracy calendar based on stellar observation devised in Egypt</td>
</tr>
<tr>
<td>Neolithic Age</td>
<td>he 6000s</td>
<td>Stonehenge, most famous of ancient stone monuments, begun in England</td>
</tr>
<tr>
<td>Neolithic Age</td>
<td>he 5000s</td>
<td>Oldest known massive stone monument built in Brittany</td>
</tr>
<tr>
<td>Neolithic Age</td>
<td>he 4000s</td>
<td>Earliest written code of laws drawn up by humans</td>
</tr>
<tr>
<td>Neolithic Age</td>
<td>he 3000s</td>
<td>Invention of ocean-going canoes; humans reach South Pacific</td>
</tr>
<tr>
<td>Neolithic Age</td>
<td>he 2000s</td>
<td>Current era begins</td>
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Current Era

1 Height of Roman Empire, Birth of Christ, Destruction of Pompeii (79), Persecution of Christians, Emperor Constantine, Establishment of Christian dominance, Decline of Roman Empire

500 Rise of Islam, Dark Ages in Europe, Plague, Tang Dynasty in China, Sung Dynasty in China, Vikings

1000 Norman Conquest (1066), Cathedrals constructed, Genghis Khan, Ottoman empire in Turkey, Aztecs settle in Mexico, Printing Press

1500 BEGINNING OF MODERN ERA, Printed Herbals, Columbus, Age of Exploration
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1600  William Shakespeare, Francis Bacon, Rembrandt, Cromwell
1700  Gardens of Versailles, Isaac Newton, US Revolution (1776), Carolus Linnaeus
1800  Thomas Andrew Knight: Beginning of Horticultural Science, Charles Darwin, Gregor Mendel; Birth of Genetics, Morrill Act
1900  Liberty Hyde Bailey—Wright Brothers flight—ASHS founded, Rediscovery of Mendel’s paper, Beginning of Genetics
1910  Thomas Hunt Morgan & Drosophila, Mechanization of Agriculture, World War I

1920  Hybrid Corn, Vitamins, Rise of Tractor in Agriculture
1930  World Depression, Dust Bowl
1940  World War II, VE, VJ Day, Cold War
1950  DNA Structure, Watson & Crick, Korean Conflict, Genetic Code
1960  Herbicides, Vietnam Era
1970  Man on the Moon (1969), Green Revolution, Plasticulture, Tissue Culture, Micropropagation
1980  Gene Transformation, Molecular Biology
1990  Gulf War, Computers, Information Revolution—Internet
2000  Genomics, Directed Mutation

Summary
Dates to Remember

Years ago
4.5 Billion  Origin of Earth
3.5 Billion  Origin of Life
1 Billion  Oxygen-breathing Animals
200 Million  Age of Dinosaurs
2 Million  Tools Used by Early Man
1 Million  Homo erectus
Years ago | Dates to Remember
---|---
200,000 | Neandertal, Cro-Magnon
10,000 | Neolithic Revolution
8,000 | Agriculture Develops
5,000 | Bronze Age–Pyramids–Stonehenge
| Writing begins
3,000 | Iron Age
2,500 | Golden Age of Greece
2,000 | Common Era
1,500 | Fall of Rome
1,000 | Norman Conquest
500 | Modern Times–Columbus
0 | Genetic Code