

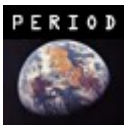
14000 MYA
Big Bang
Theory



BIG BANG : Formation of the Universe

Ca. 13.7 billion years ago: Universe, which includes time and space, begins with Big Bang. The Big Bang is dated according to NASA. 300 thousand years after the Big Bang, hydrogen nuclei capture electrons, forming the first atoms. 600 million years after the Big Bang: formation of first galaxies, see Galaxy formation and evolution. 5 billion years ago: formation of the Sun. 4.5 billion years ago: formation of the Earth.

4600 MYA
Formation Earth
Theory



FORMATION OF EARTH

4600 MYA Formation of the approximately homogeneous solid Earth by planetesimal accretion. 3800 MYA The Earth's crust solidifies--formation of the oldest rocks found on Earth. 3500 MYA Prokaryotic cell organisms develop. Beginning of photosynthesis by blue-green algae which releases oxygen molecules into the atmosphere and steadily works to strengthen the ozone layer and change the Earth's chemically reducing atmosphere into a chemically oxidizing one. 350-300 MYA Rise of the amphibians, Primitive insects have evolved, Primitive ferns evolve--first plants with roots. 20-12 MYA The chimpanzee and hominid lines evolve. 3.5 MYA The Australopithecus Lucy walks the Earth. 2 MYA Widespread use of stone tools. 2-0.01 MYA Most recent ice age.

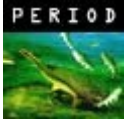
543 MYA - 490 MYA
Cambrian
Theory



CAMBRIAN : Explosion of Life on Earth

The Cambrian Period marks an important point in the history of life on earth; it is the time when most of the major groups of animals first appear in the fossil record. This event is sometimes called the "Cambrian Explosion", because of the relatively short time over which this diversity of forms appears. It was once thought that the Cambrian rocks contained the first and oldest fossil animals, but these are now to be found in the earlier Vendian strata.

290 MYA - 248 MYA
Permian
Theory



PERMIAN : Largest Mass Extinction

The Permian period lasted from 290 to 248 million years ago and was the last period of the Paleozoic Era. The distinction between the Paleozoic and the Mesozoic is made at the end of the Permian in recognition of the largest mass extinction recorded in the history of life on Earth. It affected many groups of organisms in many different environments, but it affected marine communities the most by far, causing the extinction of most of the marine invertebrates of the time.

The global geography of the Permian included massive areas of land and water. By the beginning of the Permian, the motion of the Earth's crustal plates had brought much of the total land together, fused in a supercontinent known as Pangea. Many of the continents of today in somewhat intact form met in Pangea (only Asia was broken up at the time), which stretched from the northern to the southern pole. Most of the rest of the surface area of the Earth was occupied by a corresponding single ocean, known as Panthalassa, with a smaller sea to the east of Pangea known as Tethys.



245 MYA - 65 MYA
Mesozoic
Theory



MESOZOIC : Age of Dinosaurs

The Mesozoic is known as the Age of Dinosaurs. It also saw the development of early birds and mammals, and of flowering plants (angiosperms). At the end of the Mesozoic, all the major body plans of modern life were in place although in some cases -- notably the mammals -- the forms that existed at the end of the Cretaceous were relatively primitive. The Mesozoic includes three Geologic Periods; from oldest to youngest, the Triassic, Jurassic and Cretaceous. It extended from roughly 245 million years before present to roughly 64 million years.



5 MYA - 2500 BC
4th Millennium BC
Theory

PERIOD



STONE AGE : The Human Era

The first species of the genus Homo, evolved in South and East Africa in the late Pliocene or early Pleistocene (2 - 2.5 million years before present) when it diverged from the Australopithecines (Australopithecines and Hominines are collectively referred to as Hominids). The Stone Age is that ancient time period during which, humans created tools from stone (for lack of better technology). Wood, bones and other materials would also be used, but stone (in particular flint) was shaped for use as cutting tools and weapons. The date range of this period is ambiguous, disputed, and variable according to the region in question. While it is possible to speak of a general 'stone age' period for the whole of humanity, some groups never developed metal-smelting technology, so remained in a 'stone age' until they encountered technologically developed cultures. However, in general, it is believed that this period began somewhere between 2 and 5 million years ago and began with the first human (or pre-human) tool-making. The period was followed by the Bronze Age, during which bronze tools became common; this transition occurred between 6000 and 2500 BC

70000 BC - 8000 BC
Ice Age
Theory

PERIOD



ICE AGE : Extinction of Large Mammals

The last Ice Age started about 70,000 years ago and ended about 10,000 years ago (during the Pleistocene epoch). The Earth was much colder than it is now; snow accumulated on much of the land, glaciers and ice sheets extended over large areas and the sea levels were lower. These phenomena changed the surface of the earth, forming lakes, changing the paths of rivers, eroding land, and depositing sand, gravel, and rocks along the glaciers' paths. During the last Ice Age, there were many large, interesting mammals, like the saber-toothed cats, giant ground sloths, mastodons, and mammoths. These animals have long since gone extinct and are known mostly from fossils, from frozen, mummified carcasses, and even from ancient cave drawings.

9000 BC - 4500 BC
First Settlements



NEOLITHIC : First Permanent Settlements

The Neolithic is traditionally the last part of the stone age. The first permanent settlements appear; the domestication of plants (notably wheat) and animals (goats and sheep). The Naqada lived in sizable settlements by about 4,000 BC and produced decorated pottery and figurines made from clay and ivory which indicate they were a war-like people. Naqada artifacts from 3,300 BC show further development both in terms of culture and technology. Evidence of irrigation systems and more advanced burial sites, as well as the use of alien materials like lapis lazuli, indicate a cultural diversity and the development of external trading.

3200 BC - 1200 BC
2nd Millennium BC



BRONZE AGE : First Pharaohs

The earliest hieroglyphs appear at about the beginning of the pharaonic age. 365-day calendar introduced. 1st Dynasty (2920 - 2770) This period is shrouded in mythology. Little is known of Menes and his descendants outside their claim of divine ancestry and that they developed a complex social system, patronized the arts and constructed temples and many public buildings.

The foundation of Memphis, the world's first imperial city, is attributed to Menes. From Memphis the third and fifth kings of the First Dynasty set out to conquer the Sinai. During the First Dynasty culture became increasingly refined. The royal burial grounds at Saqqara and Abydos became sites of highly developed mastabas.

2800 - 2360 BC Sumarian (Persian) city states formed along the Tigris and Euphrates Rivers.

1200 BC - 332 BC
1st Millennium BC



IRON AGE : Start of the Trojan War

1200 BC Start of the Trojan War. Time of the Judges: Israel is a twelve-tribe confederation. 1175 BC The 'Sea Peoples' were moving out of the Aegean and Anatolian regions as a result of years of drought and poor harvests. Rameses III, according to the traditional interpretation, defeated the Sea Peoples (including the Philistines) in northern Phoenicia (Lebanon), settled at least some of the captives in Egyptian strongholds along the southern coast of Palestine, and thereby tightened his control of the coastal Palestinian plain. In the short term the captives were probably treated as hostages against the threat of attack by their kinsmen. Eventually, they would have come to treat their strongholds as home and would then serve as the local mercenary force in support of Egyptian interests in Palestine. Eventually, of course, the Philistines turned themselves into an army of conquest and threw out their Egyptian masters.

332 BC - 63 BC
1st Millennium BC



HELLENISTIC PERIOD

Alexander the Great (336-323 BC) invades. A regional process of Hellenization begins all over the eastern Mediterranean. Alexander's generals eventually become his successors; the Ptolemy's rule Egypt and Palestine and the Seleucids rule Anatolia, Syria and Persia. Darius III (336-331 BC), king of the Persians and Medes was defeated by Alexander the Great, son of Philip of Macedonia. 331 - 200 BC Alexander the Great conquered the "known" world. Following the death of Alexander, Palestine became part of the empire of the Greeks in Egypt, the Ptolemies. Hellenized cities were built along the coast at Gaza, Ascalon, Joppa, Dor, and Acco (renamed Ptolemais), ie all along the entire coast of Philistia. This provided a buffer zone between Egypt and the Seleucid empire which had already annexed Phoenicia. It also left the inland parts of Palestine (including a very small Judaea around Jerusalem and Jericho) essentially land locked. Interestingly, even at its smallest extent, Judaea still included Qumran. Inland cities were built or rebuilt, such as that at Scythiopolis (formerly Beth Shean), Samaria was Hellenized as Sebaste, and Rabbath-Ammon (Amman) was refounded as Philadelphia, which remained a free city state. Greeks, Macedonians and Hellenized Phoenicians took up permanent residence throughout Palestine. 323 BC Alexander the Great dies.

63 BC - 476
1st Century BC



ROMAN PERIOD

The Roman Empire is the term conventionally used to describe the Roman state in the centuries following its reorganization under the leadership of Gaius Julius Caesar Octavianus (Caesar Augustus) in the last three decades B.C. Although Rome possessed an empire for centuries before the autocracy of Augustus, the pre-Augustan state is conventionally described as the Roman Republic. The Roman Empire controlled all of the Hellenized states that bordered the Mediterranean sea, as well as the Celtic regions of Northern Europe. The last emperor at Rome was deposed in 476, but by that date the Eastern regions had come to be administered by a second emperor based at Constantinople. The Eastern Roman (Byzantine) Empire continued to exist, though with gradually shrinking territory, until 1453 when Constantinople fell to the Ottoman Turks (See Byzantine Empire). Successor states in the west (the Frankish kingdom and the Holy Roman Empire) and the east (the Russian czars) used titles adopted from Roman practices well into the modern period.

330 - 1453
Byzantine



BYZANTINE PERIOD

The Byzantine Empire or Eastern Roman Empire was the eastern section of the Roman Empire which remained in existence after the fall of the western section. The life of the empire is commonly considered to span AD 395 to 1453. The empire was divided into eastern and western portions under Arkadius and Honorius, the sons of Emperor Theodosius I. During the thousand years of its existence, it was known simply as the "Roman Empire." The Byzantines considered themselves to be Romans (Rhomaioi) and the legitimate continuation of the Roman Empire. Even though much of its language, and culture was Greek, this posed no contradiction for the Romans of the Eastern Empire. Greek had been their language, and their culture had been Hellenistic for centuries. Latin remained the official language until the 7th century. Surrounding lands and empires (such as the Persians and Arabs to the east, Europeans to the west, and Russians to the north) called them Roman as well, and it was considered a great insult to refer to the empire as "Greek.", because "Greek" meant "Pagan". The empire was not referred to as "Byzantine" until the 17th century--and only then by "Western" historians, when they decided to distinguish the medieval entity from the (in reality quite different) ancient empire. This name comes from the ancient Greek colony of Byzantium.



MIDDLE AGES

The Middle Ages was the middle period in a schematic division of European history into three 'ages': Classical civilization, the Middle Ages, and Modern Civilization. It is commonly considered as having lasted from the end of the Western Roman Empire (5th century) until the rise of national monarchies and the beginnings of demographic and economic renewal after the Black Death, European overseas exploration and the cultural revival known as the Renaissance around the 15th century as well as the Protestant Reformation starting 1517 when the Disputation of Doctor Martin Luther on the Power and Efficacy of Indulgences, known as the 95 Theses, challenged the teachings of the Church on the nature of penance, the authority of the pope and the usefulness of indulgences. They sparked a theological debate that would result in the birth of the Lutheran, Reformed and Anabaptist traditions within Christianity.

1350 - 1600
Renaissance



RENAISSANCE

"Renaissance," French for "rebirth," perfectly describes the intellectual and economic changes that occurred in Europe from the fourteenth through the sixteenth centuries. During the era known by this name, Europe emerged from the economic stagnation of the Middle Ages and experienced a time of financial growth. Also, and perhaps most importantly, the Renaissance was an age in which artistic, social, scientific, and political thought turned in new directions.

1500 - 1600
Reformation



REFORMATION

The Protestant Reformation was a movement which began in the 16th century as a series of attempts to reform the Roman Catholic Church, but ended in division and the establishment of several other Christian churches, most importantly Lutheranism, Reformed churches, and Anabaptists.



ENLIGHTENMENT

The Age of Enlightenment was an intellectual movement in 18th-century Europe. The goal of the Enlightenment was to establish an authoritative ethics, aesthetics, and knowledge based on an "enlightened" rationality. The movement's leaders viewed themselves as a courageous, elite body of intellectuals who were leading the world toward progress, out of a long period of irrationality, superstition, and tyranny which began during a historical period they called the Dark Ages. This movement provided a framework for the American and French Revolutions, as well as the rise of capitalism and the birth of socialism. It is matched by the high baroque era in music, and the neo-classical period in the arts.

The boundaries of the Enlightenment are often thought to cover much of the 17th century as well, though others term the previous era "The Age of Reason". For the present purposes, these two eras are split, however, it is equally acceptable to think of them conjoined together as one long period.



INDUSTRIAL REVOLUTION

The Industrial Revolution was a period of the 18th century marked by social and technological change in which manufacturing began to rely on steam power, fueled primarily by coal, rather than on animal labor, or on water or wind power; and by a shift from artisans who made complete products to factories in which each worker completed a single stage in the manufacturing process. Improvements in transportation encouraged the rapid pace of change.

The causes of the Industrial Revolution remain a topic for debate with some historians seeing it as an outgrowth from the social changes of the Enlightenment and the colonial expansion of the 17th century.

The Industrial Revolution began in the English Midlands and spread throughout England and into continental Europe and the northern United States in the 19th century.

1900 - 2000
20th Century



20th CENTURY

The twentieth century was remarkable due to the technological, medical, social, ideological, and international innovations, and due to the rise of war, genocide, and democide on an unprecedented scale. The trends of mechanization of goods & services and networks of global communication which were begun in the 19th century continued at an ever increasing pace in the 20th. Virtually every aspect of life in virtually every human society changed in some fundamental way during the twentieth century.

2000 - 2099
21st Century



21st CENTURY

The twenty-first century is the first century of the third millennium (2001 - 3000).

The increasing prevalence of global communications and encounters with other calendars (Islamic calendar, Chinese calendar, Persian calendar, Hebrew calendar) suggest that the terms "21st century" and "the third millennium" have a substantial cultural bias. Some futurists suggest simply abandoning the idea of "centuries", setting the start date back to the beginning of human urbanization in the 4th millennium BC, making this the seventh millennium. Within that, some suggest also adopting a cyclic time model based on global climate change, which they view as the macro-equivalent of the annual seasons.

2009
Future



FUTURE

The future is the portion of the timeline that is still to occur, i.e. the place in space-time where lie all events that still have not occurred. In this sense the future is opposed to the past (the set of moments and events that have already occurred before) and the present (the set of events that are occurring now).
