

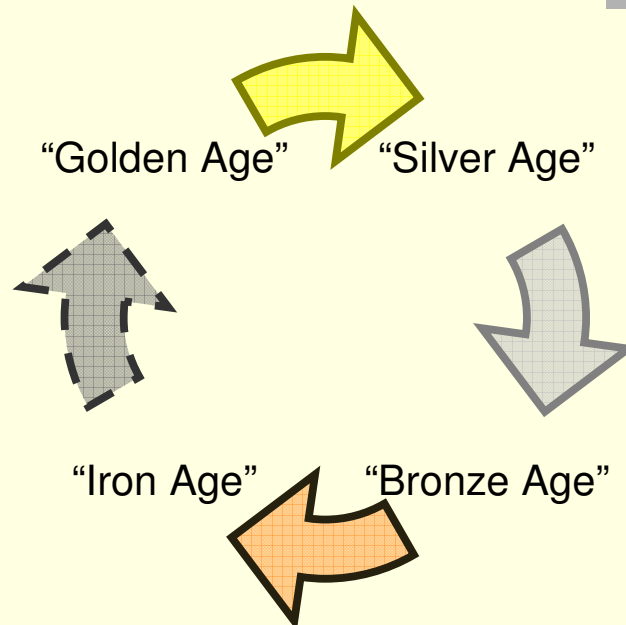
The World Ages in Myth and Science



The Hanging Gardens of Babylon, artist unknown, c. 19th century

- The concept that time is cyclical in nature pervades the beliefs of most cultures worldwide.
- Even those cultures who believe there is a definite beginning and apocalyptic end to the universe believe in a rebirth of some sort.
- Many cultures that lack even this belief have some notion of the “fall of man.”

Concept of “Ages”



- This notion of an idyllic “golden age” in the past usually holds that humans in the remote past lived longer and more peacefully.
- Through successive ages, each worse than the last, humans have sunk to their present state. Eventually, humans may rise again to attain the golden age.
- Though most such beliefs may be nostalgic, psychological “wishful thinking,” there may be firmer foundation for these beliefs.
- This presentation analyzes the concept of “world ages” in ancient Sumerian, Judeo-Christian, Greek, Irish, Norse and Indian accounts.
- In addition, it explores connections among these accounts and examines recent scholarship in the field.
- Finally, it asks whether there is a possible scientific basis for these views, such as a connection with the precession of the equinoxes, an astronomical cycle of the earth’s axis lasting approximately 26,000 years.

Sumerian King List



- Mixes myth and history, like many royal genealogies
- The first dynasty, established in Eridu “after the kingship descended from heaven” lists a chain of kings with unbelievably long reigns. One name is readily apparent from the myth of his involvement with Inanna: “Dumuzid, the shepherd, ruled for 36000 years.”
- At the end of this dynasty, the fragment records “In 5 cities 8 kings; they ruled for 241200 years. Then the flood swept over.” This makes the average reign of this period roughly thirty thousand years.
- Though obviously mythological rather than historical, there is some archaeological corroboration in that the first city-state Eridu is the oldest known in Mesopotamia.

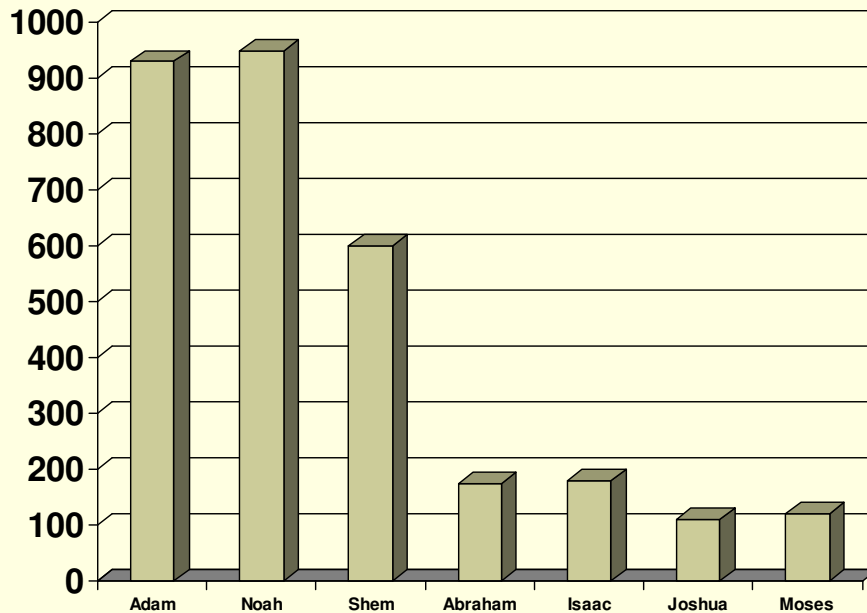
The supernaturally long reigns imply the first dynasty was divine. Dumuzi is not just “shepherd” in the King List but “shepherd god” elsewhere. Yet he dies in quite a mortal way in at least one account—with his head staved in by bandits (Littleton 99). The other possibility is that these reigns refer not to individual monarchs but entire dynasties founded by each. The fact that during this period the capital moves through five different cities (Eridu, Bad-tibira, Larak, Sippar, Shuruppak) seems to support this.

After the flood, a new “kingship had descended from heaven” which establishes itself in Kish, considerably further inland than the original capital of Eridu, or even the last one at Shuruppak. A notable monarch of this epoch was “Etana, the shepherd, who ascended to heaven and consolidated all the foreign countries” and reigned 1500 years. This was a popular story in the archaeological record, judging from “a number of seals depicting a mortal climbing toward heaven on the wings of an eagle” (Kramer 126). The Kish dynasty concludes with “23 kings; they ruled for 24,510 years...” (Black 40-94). This gives an average reign of 1065 years. The monarchs of the second dynasty have drastically shorter reigns than the first, but still longer than historical standards.

The third dynasty is at least semi-divine, as it begins in E-ana with a son of the god Utu (Shamash). After reigning for 324 years, “Mec-ki-aj-gacer entered the sea and disappeared.” His son Enmerkar founds a new capital at Unug (Uruk) and reigns 420 years. The successive kings are the semi-divine shepherd Lugalbanda who reigns 1200 years. Another Dumuzi (this one a fisherman) rules for 100 years, then Gilgamesh reigns 127 years (Black 95-133). Only after Lugalbanda do we see reigns approach anything near human-like lifespans. As his failed quest for immortality shows, Gilgamesh is clearly mortal, even if “two-thirds divine” (Littleton 116, 133). After his rule, the reigns are fully within human possibility: his son Ur-Nungal rules 30 years, his grandson Udul-kalama 15 years (Black 95-133). The twelve kings in the third dynasty reign an average of 193 years each, but the average of the first three (semi-divine) kings is 650 years; the remaining nine kings reign an average of 41 years each.

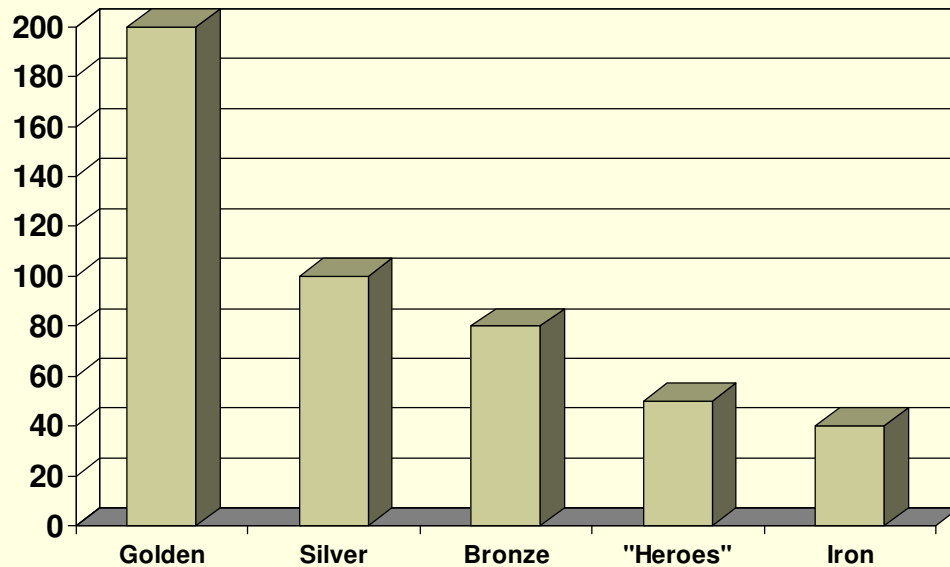
With a few (perhaps also semi-divine) exceptions, the kings from the fourth dynasty on continue to have mortal lifespans. Considerable discrepancies appear in various versions of the King List, but the trend is clear. There is a movement through successive, ever-declining stages: from near-divine to semi-divine to mortal (but long-lived) to short-lived mortality.

Old Testament



- The Old Testament, which likely derives from a common source, measures a similar decline in lifespans. Adam and his descendants up to Noah live an average of 900 years each. The main exception is Enoch, whose death the Bible does not record. Rather, it states “God had taken him away” after 365 years (*NIV, Gen. 5:3-32*).
- After the Flood, Noah’s son Shem and his descendants live around half as long as their ancestors did (11:10-17).
- After the birth of Peleg (called “Division... because in his time the earth was divided”), there is another sharp decrease to an average lifespan of two hundred years (10:25, 11:18-23).
- Abraham lives to 175 (25:8) and his son Isaac to 180, a “very great age” (35:28-29).
- A few generations later, Joshua is “embalmed and laid in a coffin” in Egypt at age 110. Moses, the great patriarch who occupies the rest of the Old Testament, lives to a mere 120 (*Deut. 34:8*), a lifespan within the upper bounds of those known today.

Ancient Greece: Hesiod



In his poem *Works and Days*, the Greek poet Hesiod describes a myth known as the “Five Races” that deals with the successive ages of man. The first is a “golden race” made by the immortals in Kronos’ time. Though mortal, this race enjoyed perpetual youth and lived apart from evil. By Zeus’s time, the golden race survived only as *daimones* or guardian spirits. Hesiod is unclear as to why this race vanished, but other writers suggest “the terrible wars of the gods led to their destruction.”

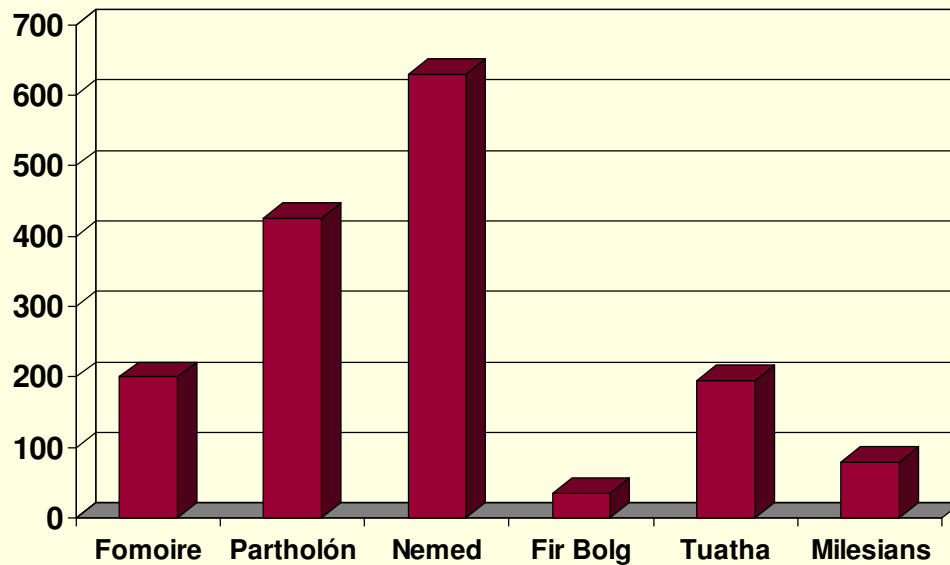
Hesiod continues with the next race (the silver race). He does not state the duration of the “short time” after youth, but it would seem to match the Sumerian and Biblical sources—well over a century but nothing like that of the first race.

Zeus grows angry at the “rash violence” and impiety of the silver race. Oddly enough, he destroys them and creates a bronze race even more violent: “terrible and strong, who cared for the grievous works of Ares and violence;” they ate “no bread, but had a hard-hearted spirit of adamant...” Their fate is worse than that of the golden or even the silver race, which became at least “blessed mortals under the earth.” The bronze race has a grim fate: “they went to the moldy house of icy Hades, nameless.”

An interlude occurs with an infusion of divine blood, which creates “a godlike race of heroes who are called demigods” (159). This race is no less violent, but their epic involvement in the Trojan War gives them a place in the islands of the blessed. And Zeus will destroy this race of mortal men too, when at birth they are grey at the temples.

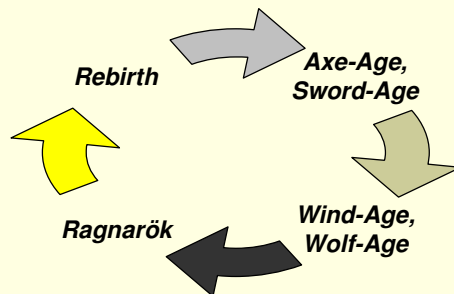
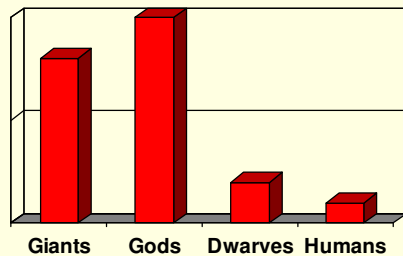
Then Hesiod accounts for his own race: “I wish I were not among the fifth race of men, but died before or was born later. For now the race is of iron; never by day will they cease from labor and pain.” This marked decrease in lifespan seems the primary distinguishing mark between the fifth race and the previous ones. Certainly, the fact that “one will sack another’s city” does not set them apart from the previous two or three races.

Ireland: Cycles of Invaders



Unfortunately, we have few accounts of this nature from the pre-literate Celts. The closest thing that survives is the *Lebor Gabála Éirenn* (“Book of the Taking of Ireland”) which details the invasions of various human and semi-human races. It suffers further from the redaction of Christian monks, who made it conform to their religion and chronology. Thus, their account begins with the Flood and the invaders descend from Noah (Fleming 48). In contrast to the long-lived early Sumerian kings, the reigns of the early Irish kings seem unnaturally compressed. The entire reign of the Fir Bolg race runs a few decades, and the godlike Tuatha De Danaan (people of the goddess Dana) collectively reign less than two centuries (Graham 3-4). Apparently, the monks had to dispense with the “pagan” aspects of the *Lebor Gabála* to make way for the “historical” Milesian and Gaelic kings (Fleming 48).

Norse *Voluspa*: Seeress's Prophecy

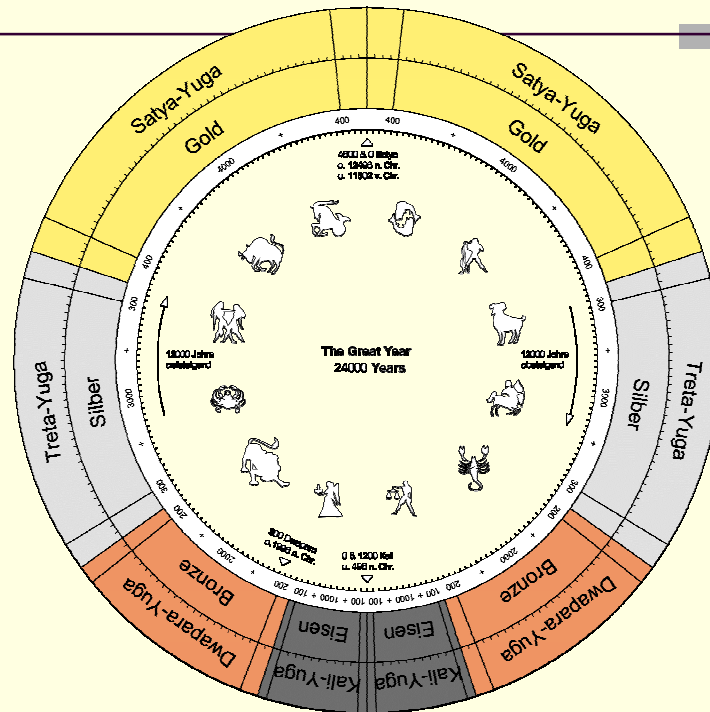


“Axe-age, sword-age, shields
are cleft asunder,
wind-age, wolf-age, before the
world plunges headlong;
no man will spare another.
She sees, coming up a
second time,
Earth from the ocean,
eternally green;
the waterfall plunges, an eagle
soars over it,
hunting fish on the mountain.”

We fare somewhat better with Scandinavian myths of the ages. The *Voluspa* records a succession of races formed at the beginning of the world, from giants (2-3), gods (4-8), dwarves (9-16) and finally humans (17-18). The seeress describes various events relevant to the gods, then describes the cycle of ages leading up to Ragnarök (45). After describing the utter destruction of the final battle, she sees the Earth reborn, “eternally green” (59). The surviving gods find the golden checkerboard they played at the beginning of time lying in the grass, and the dead god Balder returns (61-62).

This prophecy presents a belief in the return of a golden age after an age of destruction, a view Hesiod vaguely suggests by wishing he were “born later.” However, this same concept plays a crucial role in the myths, religions and calendars of many other cultures from India to Mesoamerica.

India: Yugas

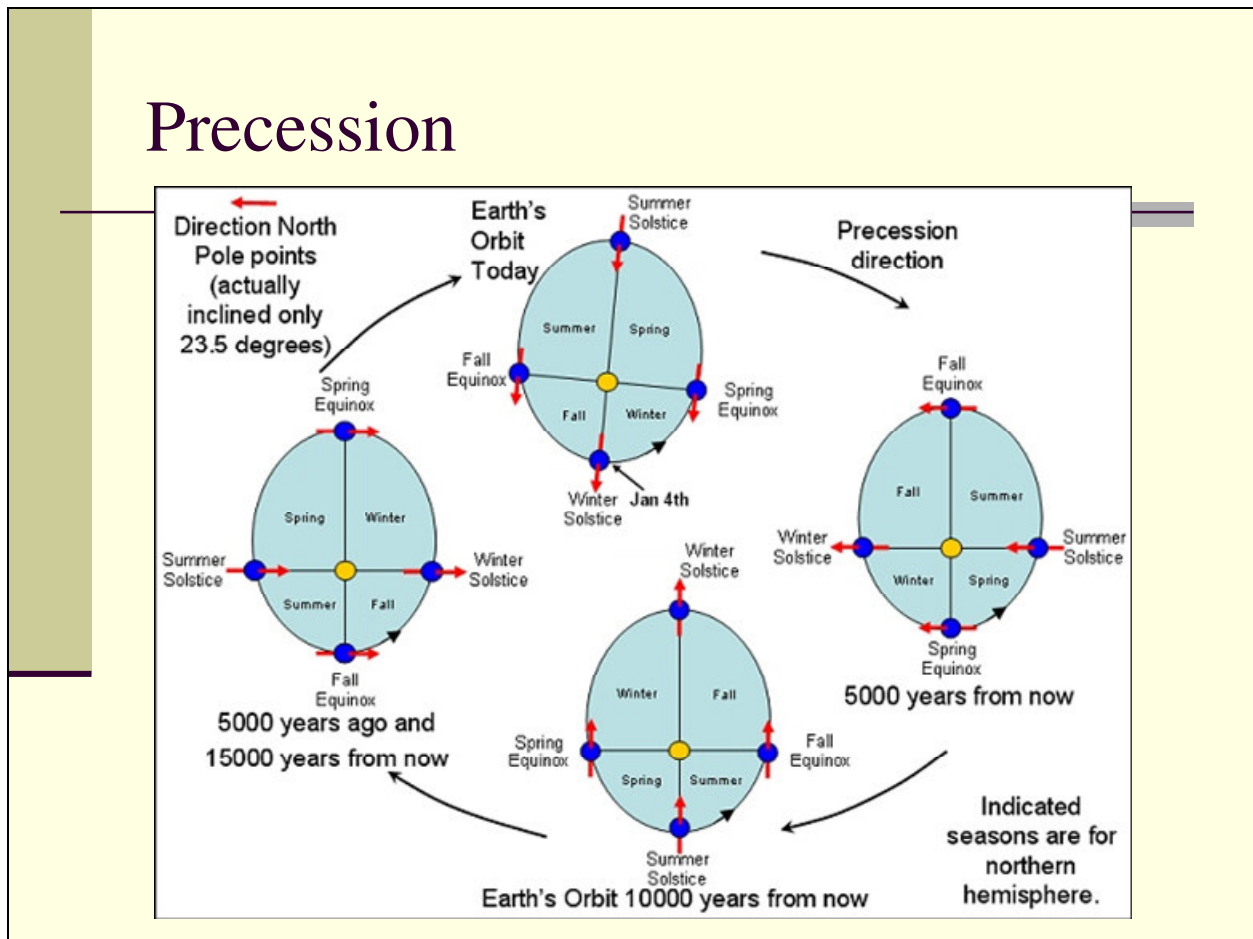


Several ancient Indian texts describe a great cycle of ages, or *yuga*, that declines steadily over thousands of years, only to start anew when the cycle ends. The descriptions of the *yuga* (*Krita*, *Tretá*, *Dwápara*, *Kali*) correspond quite closely to the Golden, Silver, Bronze and Iron ages in other accounts (*Vishnú Puráña* III:23; Giri).

In Jainism, the universe was never created, nor will it ever cease to exist. Time is divided into Utsarpinis (progressive time cycle) and Avsarpinis (regressive time cycle). An utsarpini and an avsarpini constitute one full time cycle, or kalchakra. Each utsarpini and avsarpini is divided into six unequal periods known as Aras. During the utsarpini half cycle, ethics, progress, happiness, strength, age, body, religion and other human qualities go from the worst conditions to the best. During the avsarpini half-cycle, these characteristics degrade from the best to the worst. Jains believe we are currently in the fifth Ara of the avsarpini phase, with approximately 19,000 years until the next era. After this Avsarpini phase, the Utsarpini phase will begin, continuing the eternal cycle of the kalchakra (Singh 313).

[Graphic courtesy of Ingo Kappler based on descriptions from Sri Yukteswar, reproduced under the Creative Commons Attribution-Share Alike 2.0 License]

Precession



Astronomical observations dating back to Ptolemy (around 140 BC) or earlier indicate the earth's axis changes its orientation periodically.

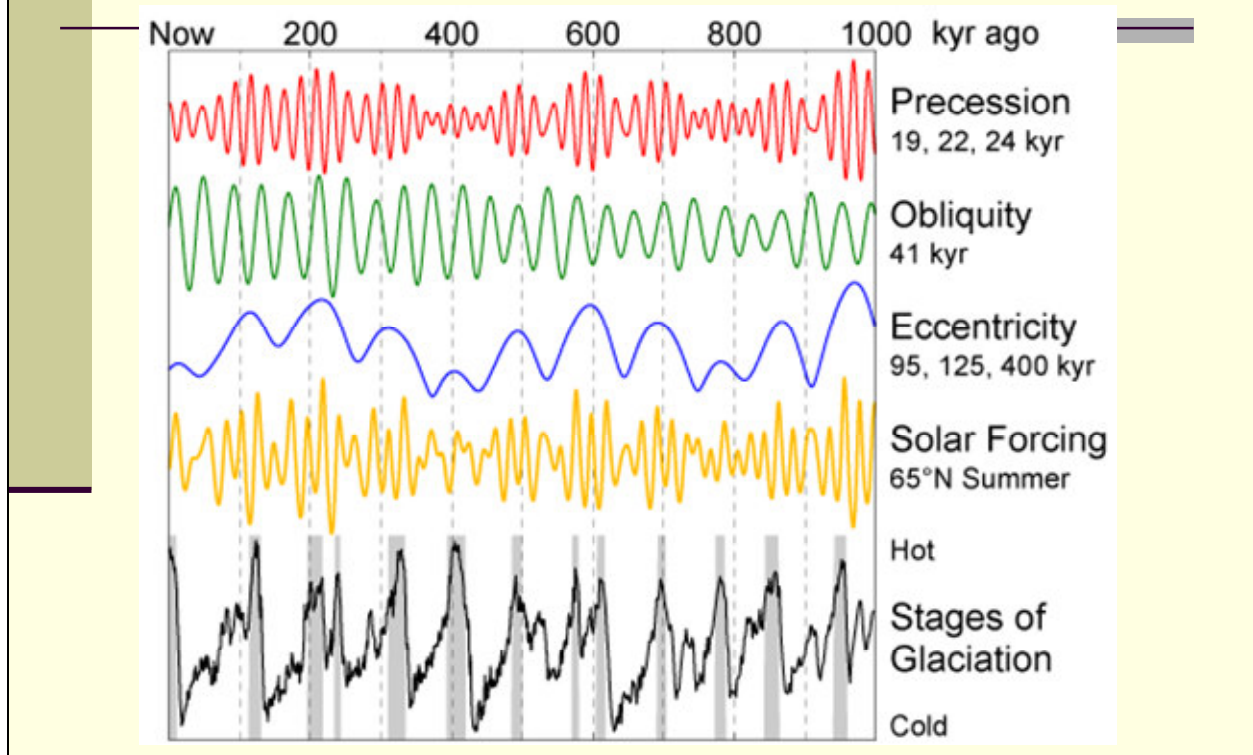
Every 24-26,000 years or so, the axis traces a complete circle. The North Star 5,000 years from now will be different from the one now, as it will 10,000 years from now and so on. After the cycle completes, the North Star will once again be Polaris (Hohenkerk et al., 99).

There are various theories to account for this phenomenon (called precession) ranging from a periodic "wobble" in the earth's magnetic field to an invisible binary star, a companion to our own sun. This theory has become more popular among astrophysicists and authors recently, several noting that binary systems are in fact the rule rather than the exception in the universe, and that a red dwarf with a distant orbit could be very difficult to detect (Cruttenden 108-113).

The most likely explanation is a combination of gravitational forces of the sun and moon acting on the earth. Regardless, precession is an observable phenomenon. There is evidence ancient peoples ranging from the Sumerians to the Mayans knew of it, and also evidence it acts on the earth in larger ways.

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Milankovitch Cycles



Precession works in conjunction with other geological and astronomical processes to the Milankovitch cycles (discovered by Serbian mathematician Milutin Milanković).

The details of this theory are not exact, but the suggestion is that these events act together to produce great variations in the earth's climate. Deep ice cores taken from Greenland and Antarctica dating back hundreds of thousands of years corroborate this.

If the theory and ice core data are correct, we are roughly in the middle of an upward trend from a cold period (the last ice age) to a warmer period. What we perceive as global warming is merely an ongoing trend lasting tens of thousands of years. Whether we can accelerate or lessen the warming is an open question. Without doubt, humans and their inventions contribute to warming through the increase of greenhouse gases. However, larger forces beyond our influence such as the Milankovitch cycles have a greater control over the world's cooling and warming cycles (Huybers & Wunsch 491).

[Graphic courtesy of Global Warming Art, reproduced under the GNU Free Documentation License – www.gnu.org]

World Ages: Key Points

- Many cultures worldwide believe in a cycle of “ages” affecting the world
- This includes a general downward trend, but also in several cultures an upward trend
- Several ancient cultures had sophisticated calendars and astronomical observatories
- Science has shown that several forces act on the earth to produce cycles spanning many thousands of years

Many societies today seem to believe humans have risen from a state of ignorance to a more advanced condition. Judging from lifespans, we have not progressed much even from historical accounts of people who lived over a century, despite the wonders of modern medicine. It is clear many ancient cultures, even advanced ones, saw themselves as living in a “fallen” state, or that such an age would soon occur. Cultures taking this concept even further see time as cyclical, and hold that a time of enlightenment will come again. Combined with the flood myth, this is one of the more common beliefs held across cultures, and still figures prominently in many world religions.

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