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Problems With Current Consensus Chronology

by James B. Jordan

Last month we began a survey and review of *of* by Peter James (New Brunswick, NJ: Rutgers University Press, [1991] 1993). The thesis of this book is that the dark ages that supposedly happened all over the Mediterranean world between about 1100 and 800 B.C. never actually happened, and that these dark ages, as well as other problems of ancient history and archaeology, are really the results of “a gigantic academic blunder, perpetuated by the convenience of a seemingly reliable time-scale, as well as the sheer complexity of the issues involved” (p. 320).

In the course of their discussions, James and his colleagues discuss some other problems with ancient world chronology. I want to begin this month with a survey of some of these.

Carbon-14 Dating

Creationists are accustomed to criticisms of Carbon-14 dating, but it is interesting to read such criticisms in a secular work. Carbon-14 is an unstable radioactive isotope and it constantly changes back into nitrogen by the emission of an electron. Half the Carbon-14 in a block of carbon will revert to nitrogen in about 5730 years. By measuring this, scientists can determine when the carbon was produced, supposedly. Since, however, this method is not very accurate, Carbon-14 dates are always quoted with a Standard Deviation, which represents the degree of accuracy.

The first problem James points to is that “in practice the vast majority of results have a Standard Deviation greater than fifty years” (p. 323). This means that there is less than a 68% chance that the date assigned to the carbon piece is within 50 years of being accurate on either side. It may be as much as 200 years off on either side.

Second, James points out that “in certain circumstances old carbon can be absorbed by living organisms and produce radiocarbon dates that are too old” (p. 323). This is especially true in volcanic areas.

A third problem arises from the dating of timber used in construction. Suppose a three-hundred year

What remains from the inner core of the tree maybe a century or two older than the ~~house~~ it was used to construct. A Carbon-14 reading of such a timber would, thus, be off by a century or more.

A fourth problem is that one of the original assumptions behind Carbon-14 dating has proven unsound. It was originally held that the proportion of Carbon-14 to Carbon-12 has remained pretty much constant through history. This has proved not to be the case. The amount of C-14 in the atmosphere has fluctuated greatly in the past, falling and rising sometimes within a single century. For instance, because of these fluctuations, anything from the years 400 to 800 BC will give a C-14 date of 500 BC. Thus, Carbon-14 dating is completely useless for that entire period. It is becoming highly questionable for any period.

The Date of the Fall of Troy

Once we eliminate the Greek “dark age,” the fall of Troy is set around the year 800 BC. A problem with this date is that the ancient writers put it much earlier. **Herodotus** puts it at around 1250 BC, and similar dates are provided by **Timaeus**, **Cleitarchus**, the Parian Marble, **Sosibius**, **Ephorus**, **Phaenias** of **Eresus**, and **Callimachus**. The date 1184 BC, provided by Eratosthenes, became the standard date. There are good reasons to question all of this, because the ancient writers used very questionable methods to arrive at it.

James writes that “the most widely used system of dating in classical antiquity was that of the Olympic Games, which were regularly held in Greece every four years up until their abolition in AD 393 by the Emperor Theodosius. The period from one celebration to the next was known as an ‘Olympiad’, the first of which was traditionally reckoned as beginning in the year 776 BC” (p. 328).

There are many questions about this system. For one, the first actual use of numbered Olympiads as a basis for dating is found in Eratosthenes around 200 BC. Someone must have drawn up a list of previous Olympic Games for him to use. Plutarch (c. AD 50-120)

and how extensive was the documentation available to Hippias? Did he really manage to assemble scattered evidence for victors of the same athletic competition from over ninety Olympiads, enabling him to create a complete list up to his own time? How critical by modern standards were his methods?" (p. 329).

A second question is this: Were the games held every four years from the beginning? What evidence is there for believing that they were?

James concludes: "In fact we simply do not know when the Olympic Games began, and the accepted date of 776 BC, upon which so many synchronism have rested since antiquity, can hardly be used as a fixed chronological point" (p. 329).

Another chronological system available to Greek historians was the list of archons, the rulers of Athens. The official list ran back to 1068 BC, but James shows that anything before the 400s BC must be regarded with suspicion, because it seems to have been invented at that time.

Genealogies were another chronological system that ancient Greek historians could use to calculate the date of the Trojan war, but here again their methods are suspect. Herodotus supposes three generations in a century, which is clearly too few. Data from the ancient world suggests four generations per century would be more reliable.

Moreover, "as Sir Isaac Newton pointed out long ago, continuous father-to-son successions for the two Spartan royal lines over twenty-one generations is highly improbable on biological grounds. He suggested that the genealogies recorded by Herodotus and others must in fact have been a king list" (p. 331).

James summarizes: "One way in which such errors inevitably crept into the calculations for events such as the Trojan War was through overestimating the length of a generation. Dynastic lines may also have been misinterpreted as genealogies, in line with the general tendency to exaggerate the length and purity of one's pedigree found throughout the ancient world" (p. 332).

James concludes his discussion with the following example: "A flagrant example of the way the chronology could be extended to match prevailing notions comes from the Romans. Some of their earliest traditions put the Fall of Troy close in time to the founding of Rome—in one version Romulus (originally Rhomus) was the grandson of Aeneas the Trojan refugee. A problem arose when this scheme was compared to the canonical Greek system:

"Greek researchers into chronology, notably Timaeus and the Eratosthenes of Cyrene . . . made the Romans aware that their myths were still much too thin upon the ground. For, once it was established that the Trojan War had taken place—that Aeneas and Ascanius had lived—at a date not far from 1100 B. C., and that Rome had not been founded until three hundred years later, there remained a subsequent yawning gap to be filled. And so the mythographers duly filled it with a list of the kings of Alba

earlier times. But the king-list, as we have it, is made up by historians of the third, second, and first centuries B. C.: or more particularly Cato, whose interests in such towns prompted him to attempt a circumstantial account. (M. Grant, *Roman Myths* [Harmondsworth: Penguin, 1973], p. 106.)

"How far sheer invention played a part in the development of other detailed chronological schemes for Greek history is difficult to tell. But the Roman example clearly illustrates how the ancient system, once in existence, acquired its own momentum and could gather more 'evidence' to support it as time went on" (p. 333).

The bottom line is that the traditional dates provided by Greek historians for the fall of Troy are not reliable. The Greeks were themselves relying on very dubious historical methods, and on information that was almost certainly false.

Calculating Eclipses

We have seen (last month) that James and his associates argue that Manetho's dynasties cannot be used to form a chronology for Egypt without considerable interpretation from other sources. They have argued that the attempt to date events in Egypt by means of the star Sirius are illusory. This month we have seen them undermine attempts to form chronologies from Carbon-14 and from Greek and Roman historians.

One source that the writers do not question, though they should, is the "Canon of Ptolemy." James summarizes the work of Ptolemy: "Claudius Ptolemy, the famous Greek mathematician and geographer, recorded for posterity the names and reign-lengths of the kings of Babylon from Alexander the Great, who died there in 323 BC, back to Nabonassar, who ascended the throne in 747 BC. How Ptolemy came across documents containing such information is uncertain, but his interest in them lay mainly in their astronomical content. The sources available to him, now lost, provided detailed records of lunar eclipses observed by the ancient Babylonians, which Ptolemy dated according to an era beginning with the accession of King Nabonassar" (p. 265).

In 1978, astronomer Robert Newton published a study entitled *The Crime of Claudius Ptolemy* (Baltimore: Johns Hopkins Press), in which he claimed that Ptolemy had faked his astronomical data; that is, Ptolemy had calculated when these lunar and solar eclipses should have taken place, and had put them into his chronology.

James and his colleagues believe that Newton has no case (p. 267f.), but they should deal more carefully with his argument. Newton has for years studied the "accelerations" of the earth and the moon. These "accelerations" are small increases and decreases in the rotational speed of the earth, and of the speed at which the moon revolves around the earth. (Technically, the word "acceleration" is used both for accelerations and decelerations in these motions.) Newton has been employed by NASA to make these studies, and

the solar system.
 What causes such small changes? One cause is tidal forces. Occasionally the moon makes a slight adjustment in its orbit because of the tidal pull of the earth and of the sun upon it. The earth undergoes similar adjustments in its rotation. Another cause for rotational changes in the earth might be movements of magma in the mantle of the earth.

The importance of all this is that the farther back in time we go, the more unlikely it is that our calculations of eclipses will be correct. The changes in earthly rotation and lunar revolution may mean that an eclipse happened several days away, and was visible thousands of miles away. Thus, the fact that the Assyrian Eponym List records a solar eclipse during a certain month of the reign of Simanu does not mean that we know what year this took place. The presently-accepted year of 763 BC may be well off. The Simanu eclipse may have been a **century later, or earlier**.

And this is not to take into account continental drift. If there has been any continental drift at all, calculations of where an eclipse was visible may be well off base. To be sure, this part of the world is not the part that is said to have drifted very much, but it is hard to believe it did not move at all if the other continents were drifting.

Moreover, James and his associates do tell us that "studies by British astronomers Victor Clube and Bill Napier of the orbits of meteor streams and asteroids have shown that there were sizeable cometary bodies in the Solar System during the Bronze Age times which have since disintegrated" (p. 337). The movement of such asteroid swarms through the Solar System may well have slowed or altered the orbit of the moon. If such were the case, we would have no way to calculate past eclipses.

All of this is to say that eclipse data are very shaky, James and his associates need to take more seriously the work of Newton and others, for it may well be that the "fixed dates" provided by the calculation of eclipses are completely **unreliable** and of no use to the formation of the chronology of the ancient world.

Ptolemy's King List

Martin Anstey, in his *Bible* (1913; reprinted by Kregel, Grand Rapids, in 1973 as *of the* provides a discussion of Ptolemy's Canon or King List. He argues that Ptolemy erred in his list of the Persian kings. Ptolemy's list of Persian rulers and the lengths of their reigns, upon which the Current Consensus Chronology relies, is this:

Cyrus	9
Cambyses	8
Darius I	36
Xerxes	21
Artaxerxes I	41
Darius II	19
"	46

Ochus	21
Arogus	2
Darius III	4
Alexander of Macedon's Conquest	

Now the problem with this is that Ptolemy (AD 70-161) lived well after the facts and in another culture. The records from the cultures actually involved with the Persian empire, some dating from times much closer to the events, provide a shorter list. Let us consider first of all the Persian poet Firdusi (Firdausi, and other spellings), who lived AD 931-1020. He provides a national epic of Persia that is full of legends and stories. Still, he does provide a list of Persian kings of this period, which is as follows:

[Cyrus]
 [Cambyses]
 Darius I
 Artaxerxes Longimanus
 Queen Homai, mother of:
 Darius II
 Darius III, defeated by Alexander

The Talmucid tract *Seder* written in the early middle ages in its final form, provides a very short Persian empire:

Cyrus
 Cambyses
 Darius

Finally, Josephus, writing in the late first century and the earliest source we have, provides this list:

Cyrus
 Cambyses
 Darius
 Xerxes
 Artaxerxes
 Darius II, the last king

Now, none of these lists is particularly reliable either, but they do call into question Ptolemy's. It may be that all the rulers listed by Ptolemy actually did hold the throne, but they may have reigned for shorter times than he allotted them.

The fact is that the Persian period is open for revision. One revisionist effort, with which I must disagree, is summarized by Brad Aaronson in the Summer, 1991, issue of *Jewish* "Fixing the History Books: Dr. Chaim S. Heifetz's Revision of Persian History" (pp. 66-70). Heifetz revises Persian history to make it accord with the sequence of kings given in the *Seder*. Just as the CCC is too long for the Biblical chronology, so the account of the Persian empire is too short. But Heifetz's labors at least show that revision is possible, given the extreme paucity of accurate information about this period of history. As Aaronson notes,

mian history prior to the fall of Babylon almost in their entirety. The large number of Assyrian and Babylonian inscriptions make it clear that the Greeks had no grasp of the actual history of this region. But due to the fact that Alexander the Great destroyed the bulk of Persian records when he conquered Persia, the only records of the Persian period are the Greek stories and the Jewish tradition" (p. 67).

In short, this is a field wide open for revisionist research and development.

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Donald Wesley Patten, *Catastrophism and Old The Conflicts* (Pacific Meridian Publishing Co., 1988), reviewed by James B. Jordan.

In this book, Donald Patten contends that the planet Mars originally had an eccentric orbit that brought it into near proximity to the earth a number of times in ancient history. According to him, these "Mars fly-bys" account for a number of the miraculous events recorded in the Old Testament.

Whether Patten claims to be a Christian or not, I do not know. It is clear from the first chapter of his book that he accepts neither the Biblical account of the creation of the world nor its chronology of history. Throughout his book he ridicules orthodox interpretations of the Bible. His book is of interest to us for only two reasons: (1) it has had some influence in some Christian circles, and (2) it is an example of crack-pot exegesis of the Bible.

Patten's work is typical of the kind of thing that results when people with fruitcake ideas run to the Bible to find evidence for their notions. I do not know whether Mars actually passed near to the earth in ancient times. I do know that the Bible provides no evidence for such a notion.

According to Patten, when Exodus 14:19-20 tells us that the Angel of God appeared as a pillar of cloud and fire, this refers to the fiery appearance of a volcanically active Mars passing near the earth. The pillar of cloud and fire that led Israel through the wilderness was

Mars. Actually, the pillar was a manifestation of God in His glory, a glory created by the angels around His throne. This is what the Bible means by the term, not the planet Mars!

Similarly, when the Angel of God brought a plague upon Israel in David's day, we again have a reference to Mars (1 Chronicles 21:15). No, the reference is to God's own action. Remember that David was given a choice of which of three kinds of plagues he would have to undergo. God acted directly on this occasion, not the planet Mars.

The destruction of the Assyrians by the Angel of God in Isaiah 37:38 is also ascribed to Mars. No, God did it.

When Judges 5:20 says that the stars fought against Sisera, it refers to Mars. No, the stars here are angels, who brought the rainstorm that swamped Sisera's chariots and enabled the Israelites to defeat them.

When the psalmist says that God rode on a cherub, it refers to Mars. No, it refers to God's glory cloud-chariot.

The Leviathan in Job 41 is Mars. No, it is a great sea monster.

Naturally, the great Flood was caused by Mars, as was Joshua's long day. Maybe they were, but the Bible says nothing about it.

Mars caused what he calls the "barbecue" on Mt. Carmel in Elijah's day. No, God sent fire from His hearth, just as He did when the Tabernacle and Temple were initially set up (Lev. 9:24; 2 Chron. 7:1).

About the only thing that does not show up in this book is the appearance of God's glory to Ezekiel. Maybe this was a flying saucer!

Patten's slovenly work is, unfortunately, typical of a lot of revisionist work being done in ancient world chronology. Patten grossly misinterprets the text of the Bible, and so do most other catastrophists, including Velikhovsky. Given how little they understand of the Biblical text, we can have no confidence at all in their understanding of other texts from other cultures. Catastrophic revisionists are not reliable guides to the ancient world, and should be read with great caution.