

# Refuting Challenges to the Accepted Chronology of Achaemenid Empire

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## Abstract

This paper examines the chronology of the Neo-Babylonian and Achaemenid Empires and weighs Martin Anstey's claim that the Ptolemy's Royal Canon includes 82 fabricated years of Persian history in order to fit an artificial Greek chronology invented by Eratosthenes.

Methodology included review of the testimony of ancient chronologers, inscriptions, astronomical tablets and business tablets to determine if the Royal Canon's chronology can be reconstructed entirely from other ancient sources. We found that the Persian Chronology can be reconstructed from multiple ancient sources, and does not rely upon the Royal Canon as a primary source. We conclude that Anstey's assertions are impossible to reconcile with ancient records and modern astronomy.

Keywords: Achaemenid chronology, Persian chronology, Martin Anstey, biblical chronology

#### Introduction

The purpose of this paper is to examine the accepted chronology of the Neo-Babylonian and Achaemenid Empires and consider Martin Anstey's claim that certain Greeks fabricated 82 years of Persian history in order to fit an artificial chronology.

The history and chronology of the Old Testament ended in the middle of the Persian Empire, with the rebuilding of Jerusalem by Nehemiah. During the following four centuries "there was no word from the Lord" and there is no history or chronology of those centuries recorded in the canonical Scriptures until the Gospel accounts in the New Testament. While apocryphal books such as I and II Maccabees cover part of this period, they do not include enough information to build a chronology.

The Gospel accounts themselves reference Roman dates instead of the number of years from dated Old Testament events.

This means that prophecies of Daniel are the only scriptural bridge spanning this gap from the end of the Old Testament through the empires of Alexander, the Seleucid Greeks, and the Romans to the birth of Christ in the reign of Octavian Caesar Augustus. Daniel's bridge is a specific prophecy of 490 years from a decree to rebuild Jerusalem, until the events surrounding the advent of the Messiah, but it is not easily discerned what the beginning and end points of the 490 years were intended to be.

Because it was the endpoint of the Old Testament history and chronology, The Achaemenid Empire is a crucial link in the chain of a correct understanding of history and chronology of the ancient world.

#### Body

In order to calculate the chronology of the ancient

world in relation to Christ and also to our own time, one must pinpoint the first year of Cyrus the Great. It would be preferable to pinpoint Cyrus relative to Jesus Christ, but there are so many conflicting opinions about the dates of Christ's birth, baptism and crucifixion that we have to tie Cyrus to Roman History and the "Christian Era" (anno domini) in order to make any sense of our chronological system. One of the strongest synchronisms between Roman and Hebrew history is the destruction of the 2nd Temple in the Summer of AD70 by the forces of Emperor Vespasian. It is from this event that we work back to date the chronology of the Caesars as well as the Herodian Dynasty in Judea.

The conventional chronology of the period from Nebuchadnezzar to Vespasian is fairly well summarized by Claudius Ptolemy's "Royal Canon," a list of the reigns of kings that was used by astronomers as a chronology system for their astronomical observations and ephemeride tables. The Royal Canon has been attributed to Ptolemy because it was included as an accessory to the *Almagest* called the "Handy Tables". However the Royal Canon appears to have been in use by astronomers since the Neo-Babylonian Era, with each generation of astronomers updating the list.

The evidence is that the list changes from the kings of Babylon to the Seleucid and then Roman kings. This suggests the list was appended from generation to generation, and was continued from Egypt after Alexander's conquest, rather than being composed in one location.

The Royal Canon records the reigns of rulers over Babylon and later Alexandria, Egypt in a consecutive chain from Nabonassar of Babylon in 747BC down to Aelius Antoninus of Rome in AD138–160. Thus the Royal Canon as it appeared when published by Ptolemy spans

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a period of about one millennium, more than two hundred years of which overlap with Old Testament history and including the entirety of New Testament history.

While there is a large volume of detailed and reliable chronological data available concerning this period, the Royal Canon has proved to be a convenient dating framework, which is why it was used by astronomers in the first place. Historians of the past two millennia have generally considered Ptolemy's Canon to be important, but did not consider it the final word because they had other detailed chronological records available to them (Clinton 1824).

The high regard of nineteenth century historians for the Royal Canon may have encouraged some not-so-thorough scholars such as Martin Anstey to assert that the Canon is the only historical evidence for the chronological system bridging the period from Julius Caesar to Cyrus the Great—as if the accepted chronology of the period dangles from the single thread of Claudius Ptolemy's astronomical table. Even the biblical chronologist Floyd Nolan Jones repeated Anstey's assertion that Ptolemy was the sole link between Persia and the New Testament Era. However, Anstey was mistaken, as will be demonstrated.

The Royal Canon's record of the Achaemenid Emperors is related in Table 1.

King	Length	Cumulative	BC Dates
Cyrus II the Great	9	9	538–530
Cambyses II	8	17	529–522
Darius I Hystapses	36	53	521–486
Xerxes	21	74	485–465
Artaxerxes I	41	115	464–424
Darius II Nothus	19	134	423–405
Artaxerxes II Memnon	46	180	404–359
Artaxerxes III Ochus	21	201	358–338
Artaxerxes IV Arses	2	203	337–336
Darius III	4	207	335–332

Table 1. Achaemenid Kings.

Christian scholars have generally accepted the accuracy of the Royal Canon since the time of historians Sextus Julius Africanus and Eusebius of Caesarea in the second through fourth centuries. The date for the Fall of Babylon to Cyrus the Great is widely accepted as being in the year 539/538BC and the destruction of Jerusalem by Nebuchadnezzar 586BC. The Vassalage of Judah to Nebuchadnezzar, beginning the seventy years of servitude, is generally thought to have been the year 606BC, one year prior to the Battle of Carchemish. The independent calculations of various historians and chronologists tend to cluster around these dates. However, there are three religious factions that dispute the accepted chronology of the Persian Empire: Talmudic Judaism, the Watchtower Society (Jehovah's Witnesses), and promoters of a certain interpretation of biblical prophecy: E.W. Bullinger, Martin Anstey, Philip Mauro, Earnest Martin henceforth referred to as the "Bullinger-Anstey-Mauro-Martin School" (BAMM). Though this may be giving Mauro and Martin too much credit, as they repeated Anstey's claims without adding to his research.

All three groups dispute Ptolemy's chronology for the same reason. They all have a chronological interpretation of Daniel's prophecies that requires the *terminus ad quem* to fall on a certain date in the Christian Era (*anno domini*)—a certain number of years after an event such as the Decree of Cyrus. The problem for all three challengers is that their chronology requires the original event to fall on a date that doesn't fit with the accepted chronology of the period.

Of Daniel's prophecies covering this period, one is clearly chronological—the vision of the 70 "sevens" that spans a period from a decree to rebuild Jerusalem until the final destruction of Jerusalem. Additionally, the Watchtower Society interprets Nebuchadnezzar's dream about the tree being cut down for "seven times" as being a 2,520 year prophecy of the "Times of the Gentiles", making that passage chronologically important for their sect.

In support of their prophetic chronologies each group asserts that conventional history and chronology of the period from Nebuchadnezzar to Alexander the Great are mistaken. The Watchtower Society adds 20 years. The Rabbis subtract 170 years, reducing the Persian period to 34 years, Bullinger subtracts 109 years, and Anstey and Mauro, 82 years. The Rabbis and BAMM delete multiple kings from the Achaemenid Empire, asserting that much of the History of Persia was invented out of whole cloth by the Greeks.

All three of these factions tend to speak as if the civilizations of the ancient world did not know how to keep records of time and dates. However, the Bible itself shows us that ancient cultures were producing historical literature as well as dated legal and business documents for over 1,500 years before the Persian Empire.

These cultures had banks and commercial corporations, with accountants who recorded documents on clay tablets and papyrus scrolls. Examination of the material that has been preserved from ancient time reveals a wealth of detailed history, inscriptions, astronomical observations and business documents that is more than sufficient to independently derive the chronology of the period via multiple alternate paths tying together the histories of Greece, Egypt, Rome, Babylon, Jerusalem and Persia.

# Chronologies Requiring Deletions of History The Rabbinical Chronology

Jewish rabbinical scholars, under the leadership of Rabbi Akiva ben Joseph revised the Jewish chronology during or shortly after the Second Jewish War, known by the winners (Rome) as the Bar Kochba Rebellion (AD 132–135). Three different reasons are given as the purpose of this revision, which deleted about 178 years from the accepted chronology of world history.

One reason was to make Daniel's 70 sevens prophecy span 490 years from the decree of Cyrus the Great to the beginning of the rebellion of Simon bar Kochba—whom Rabbi ben Joseph promoted as "the King Messiah". Another reason was to make the giving of the law 1,000 years before the "time of contracts" which was the Seleucid Era. A third claimed reason was to make the 490 years of Daniel bridge from the Decree of Cyrus to the destruction of the Temple in AD 70. One hundred and seventy of the deleted years were taken from the Achaemenid Era, reducing it to 34 years. The remaining eight years were removed here and there, such as two years from the reign of Herod.

Rabbi Yose ben Halafta, who was a student of Rabbi ben Joseph, compiled the "Seder Olam Rabbah" and published it with the revised chronology around AD 140. At that time the Jews were in the habit of counting dates from the beginning of the Seleucid Era, which the Jews reckoned from the return of Seleucus I Nicator to Babylon in 311 BC.

Once a nation of people has begun using an era for dating years, it becomes very difficult to change it because business transactions and loans are dated in terms of the era. Remember the difficulties caused by the adoption of the Gregorian Calendar in different countries at different times over two centuries.

Deleting time from the Seleucid Era would have caused havoc to Jewish commerce. But Ben Halafta and Ben Joseph were free to manipulate the period between the Decree of Cyrus the Great to the Death of Darius III without creating any practical difficulties in the daily lives of the Jews. Therefore they deleted 155 years from the Persian Era, and in their revised history there were only five kings, inclusive, from Cyrus to Darius Hystaspes, whom they hold to be the same Darius defeated by Alexander the Great.

The rabbinical chronology was an obviously selfserving distortion of history in order to justify a failed messiah, Simon bar Kochba. It survives only because the center of rabbinical power moved from Babylon to Europe after the Muslim invasions in the eighth century AD. In Europe the "Seleucid Era" did not have meaning to people and countries who had never been ruled by the Seleucid kings, and the rabbis definitely didn't want to reckon from the Christian Era, so the Jews began reckoning from the year of creation—*anno mundi*. The Seder Olam was by this time associated with the Mishna, and European Rabbis decided to use Halafta's chronology of the world for the European Jewish dating system. Halafta's chronology system survives to this day on every Jewish calendar as a testimony to the failed rabbinical hopes that Simon bar Kochba was the Messiah.

## The Watchtower Society's Chronology

The Watchtower Society, also known as the "Jehovah's Witnesses", is a sect started in the 1870s by Charles Taze Russell. Russell's eschatology evolved over his lifetime, with several failed prophecies of the imminent return of Christ.

Russell was influenced by pyramidology and the "pyramid-inch" theory of John Taylor and Charles Piazzi Smyth (Russell 1891). Russell adopted the idea from Taylor and Smyth that the measurements of the Great Pyramid represented a prophetic map of world history, with one inch per year, pointing to Christ's return in 1914.

Some years after publishing his 1914 prediction based on the pyramid-inch, Russell developed a chronology that the "times of the Gentiles" mentioned by Christ in Luke 23, represented the number of years from the first Fall of Jerusalem until the return of Christ. According to Russell's logic "The Times of the Gentiles" mentioned by Jesus in Luke 21 were represented by Nebuchadnezzar's dream of the tree chopped down in Daniel 4, and that the "seven times" that must pass over it are equivalent to double the three and a half times in Revelation 12:6, which was 1,260 days×2=2,520 days; and one day equals a year, therefore this proves that 1914, which is 2,520 years after 607 BC, must be the Return of Christ.

Since Russell and his followers took 1914 as the unquestionable terminus for the "Times of the Gentiles" they were forced to cling to 607 BC for the destruction of Jerusalem regardless of evidence to the contrary.

After that prediction failed to come true, Russell changed his doctrine to say that Christ began ruling in Heaven in 1914. Ever since, the Watchtower Society has jealously defended the 1914 accession of Christ along with the 2,520 years prophecy, and therefore the year 607/606BC as the year the Babylonians destroyed Jerusalem.

Russell's calculations add about 20 years to the conventional chronology which dates the Destruction of Jerusalem around 586 BC.

Being the sect's founder, Russell's theories are enshrined in infallibility by his followers, particularly as concerns the year 607/606BC for the end of the Davidic Monarchy. The Watchtower Society therefore attacks any historical evidence counter to their reliance on Russell's date, including Ptolemy's Canon, as well as ancient astronomical diaries and ancient historians, all of which appear to agree pretty closely with the conventional chronology.

Russell's methodology of selecting a terminus based on the pyramid-inch theory and then anchoring his chronology of ancient history on a highly speculative line of reasoning is spurious. However, it is interesting that the Watchtower Society uses similar rhetoric against Ptolemy as that used by BAMM to defend their historical interpretation of Daniel.

The Watchtower Society picked up on the work of twentieth century physicist and astronomer, Robert Russell Newton (1977), whose book "*The Crime of Claudius Ptolemy*" alleges that Ptolemy fabricated his eclipse records and some of his own astronomical observations in the Almagest.

However, Robert Newton's criticisms of Ptolemy's ancient eclipse data claim that he got the day correct, but the hour and magnitude incorrect (Jonsson 2000). Therefore Robert Newton's claims, even if correct, do not challenge the reliability of Ptolemy's Canon. He did suggest that chronologies of the period covered by it should be independently verified. The Watchtower seized on Robert Newton's criticism of Ptolemy as if it disproved the king list—even though that was not one of Robert Newton's claims.

# Bullinger—Anstey—Mauro—Martin (BAMM)

Four men, Bullinger, Anstey, Mauro, and Martin (BAMM), joined together over the course of two centuries to make a loud, if not scholarly, challenge to the accepted chronology of the first millennium before Christ. These four have staked nearly their entire case upon statements by the two notable Newtons—the astronomers Sir Isaac Newton, and Robert Russell Newton. While Isaac Newton cannot be included in the BAMM group, because he never agreed with their primary thesis, it is true that the root of the BAMM ideology began with his attack upon the chronology of Eratosthenes and the Olympiad system in his book, "Chronology of the Ancient Kingdoms Amended" (Isaac Newton 1728).

Isaac Newton strongly asserted that the average regnal length of Greek kings in the chronology of Eratosthenes prior to the conquest of Babylon by Cyrus the Great was too long when compared to other kingdoms, and therefore he reasoned that Eratosthenes had estimated the reigns of kings based upon the number of generations rather than using actual historical records. The primary thesis of Isaac Newton's book was that Solomon was the first real king and that the arts of civilization had not been invented anywhere in the world prior to his reign. Isaac Newton argued that the sciences of astronomy and metallurgy originated in Greece and Egypt shortly after Solomon's reign, and that the pyramids were constructed around the same time. He also dismissed many of the pharaohs listed by Manetho as fictional.

Evidence that has been discovered since I. Newton's days amply proves the existence of the advanced civilizations of the second millennium before Christ in Egypt, Crete, and Mesopotamia and also has confirmed the existence of Manetho's kings. The flood of archaeological evidence has disproved Isaac Newton's primary thesis so thoroughly that one must conclude that though Isaac Newton was a brilliant mathematician and physicist and well versed in ancient history, his underlying assumptions apparently lead him to invalid conclusions concerning chronology.

Nevertheless, his criticisms of Greek chronology were picked up in the nineteenth century by E.W. Bullinger whose personal study of the Bible led him to cut out 109 years from the length of the Persian Empire in order to fit his chronological scheme for the prophecies of the Book of Daniel. Bullinger popularized his theory through the margin notes and appendices of *The Companion Bible*, of which he was the editor. (Bullinger 1922,122)

If [Isaac] Newton was right, then it follows that the Canon of Ptolemy, upon which the faith of modern chronologists is so implicitly—almost pathetically—pinned, must have been built upon unreliable foundations. Grecian chronology is the basis of "Ptolemy's Canon"; and if his foundations are "suspect", and this is certainly the case, then the elaborate superstructure reared upon them must necessarily be regarded with suspicion likewise.

Isaac Newton pointed out that the conventional interpretation for the identities of the kings in Ezra and Nehemiah in his day required exceedingly long ages for the men and priests recorded in those books as working with Ezra and Nehemiah to rebuild the Temple and walls of the City of Jerusalem.

While Isaac Newton worked out his own solution to this problem, one that did not require any historical deletions, Bullinger and his contemporary Martin Anstey combined Isaac Newton's observation of this problem with his criticism of Eratosthenes and Greek chronology to produce an attack on the veracity of the accepted chronology of the Persian Empire—Bullinger deleting 109 years, and Anstey deleting 82 years. Both Bullinger and Anstey rested the authority of their claims upon the venerated name of Sir Isaac Newton. However, I. Newton made quite clear in his writings that he believed the Greek records were accurate back to Cyrus the Great's defeat of Babylon (539 BC) and he considered the Royal Canon accurate back to 603 BC. Bullinger and Anstey hung their hats on something that I. Newton never wrote, and explicitly disagreed with.

Bullinger's contemporary, Martin Anstey, greatly expanded these claims in his book, "*The Romance of Biblical Chronology*", first published in 1909, raising the primary challenge to the conventional chronology that this paper seeks to address. Anstey denied the existence of the Persian kings after Darius the Great. (Anstey 1913a)

There are no contemporary chronological records whatever to fix the dates of any of the Persian monarchs after Darius Hystaspes. The clay tablets of Babylon fix the chronology, for the reigns of Cyrus, Cambyses, Pseudo-Smerdis, and Darius Hystaspes; but they do not determine the date of any subsequent Persian king. The dates which have reached us, and which are now generally received as historical, are a late compilation made in the second century AD and found in Ptolemy's canon. They rest upon the calculations or guesses made by Eratosthenes, and certain vague, floating traditions, in accordance with which the period of the Persian empire was mapped out as a period of 205 years.

Anstey contended that the Decree of Cyrus the Great was the only acceptable beginning for Daniel's Seventy Weeks. Then he contended that the Baptism of Christ was the only acceptable termination of the first 69 weeks.

These two assumptions require the Decree of Cyrus to be around 82 years later than the conventional chronology puts his accession. So Anstey built upon Bullinger's argument to say that the Greeks added 82 years to Persian history and fabricated a number of kings in order to fit the chronological estimates of Eratosthenes. (Anstey 1913a, 290)

...the Chronology of the latter part of the Persian period from Xerxes to Alexander the Great has been exaggerated, and that the five kings who fill this period:

41 years
19 years
46 years
21 years
4 years

were perhaps in fact only two or three multiplied into five in order to fill the gap made by the artificial enlargement of the chronology by some eighty-two years more or less.

Anstey also introduced the rhetoric that this issue was a question of faith rather than one of carefully considering several possible scenarios that comport with Scripture. He cast the question as one of "the Bible versus a pagan Greek astrologer". Both Mauro and Martin later picked up and amplified Anstey's rhetoric, which is nearly identical to that used by The Watchtower Society to defend their interpretation of the Fall of Jerusalem in 607/606 BC.

#### Phillip Mauro

Philip Mauro was an American patent attorney who was converted to Christianity in mid-life and proceeded to write a number of books concerning prophecy and eschatology. Mauro is often cited by followers of Anstey as a second witness to Anstey's claim.

Careful study of Mauro's writings on the subject shows that he only cited Anstey and does not appear to have gone to any original sources to substantiate Anstey's claims concerning the chronology of Persia. The grand total of Mauro's writing and research on the chronology of Persia is found in the following quote (Mauro 1923, 10)

Concerning the dates given in Ptolemy's table of Persian Kings, Anstey says: "They rest upon calculations or guesses made by Eratosthenes, and on certain vague floating traditions, in accordance with which the period of the Persian Empire was mapped out as a period of 205 years." And he shows, by a great variety of proofs taken entirely from the Scriptures, that the period which Ptolemy assigns to the Persian Empire is about eighty years too long. It follows that all who adopt Ptolemy's chronology, or any system based upon it (as all modern chronologists prior to Anstey do) would inevitably be led far astray. It is impossible to make the real Bible events agree, within 80 years, with the mistaken chronology of Ptolemy. This single fact makes many modern books on Daniel utterly worthless, so far as their chronology is concerned; and the chronology is the main thing.

Mauro is merely a parrot of Anstey, not an independent source or a second witness.

The BAMM school was quiet from Mauro's last revision of his book in 1944 until the 1970's when Robert Newton published a book entitled, "*The Crime of Claudius Ptolemy*", in which he claimed that Claudius Ptolemy faked or fudged many of the eclipse observations recorded in *The Almagest* in order to justify his theory of celestial mechanics.

Like Isaac Newton, Robert Newton also called into question the oldest part of the Royal Canon, the century preceding 603 BC, but he did not offer a specific claim of error in the Canon, he merely suggested that Royal Canon dates should be independently verified. Like Isaac Newton, Robert Newton's criticism of the Royal Canon did not concern the Neo-Babylonian or Persian periods, which he considered essentially valid. (Newton 1977) Martin expressed plans to rework ancient chronology to make it fit astronomically with the reduction of 82 years required by Anstey. But he published nothing further on the subject prior to his death in 2002.

We refer to the "Bullinger-Anstey-Mauro-Martin" position as "BAMM" in this paper as it has gained a number of followers in the creation science community, including peer reviewers for certain of the journals, and therefore continues to have considerable influence over the study of biblical history.

The essential elements of the BAMM position:

- 1. The Decree of Cyrus (2 Chronicles 36:22–23) was the beginning of the 70 weeks of years.
- 2. An event in the Life of Christ (Luke 3:1–23) was the terminus of the 69 weeks of years.
- 3. Some or all of the Persian Kings from Darius II Nothus to Darius III were fabricated by Greek historians. The alleged creator, motive, and number of "fictional" years varies.
- 4. Anstey accused both Ptolemy and Eratosthenes of inventing the chronology of the Persian Empire. He argued that Appollodorus relied upon Eratosthenes, and Ptolemy and other Greek historians relied upon Appollodorus. Therefore any historians such as Appollodorus who agree with Ptolemy do so because they drank from the same polluted well. (Anstey 1913a, 19)
- 5. Points 1–2 are the only biblical position, therefore using external evidence to prove otherwise pits the word of a pagan astrologer, namely Ptolemy, against the Bible.
- 6. Anstey claims that secular history is silent on the chronology of the Persian Empire and that the Royal Canon is the only source we have for the length of the reigns of the Persian kings.

We will now consider the arguments of these factions in light of the scriptural and historical evidence.

# **The Biblical Record**

Both BAMM and Watchtower apologists make the argument that we should be able to build a chronology of History from Creation to Christ without reference to extra-biblical sources. However, the Bible itself doesn't make this claim; and generally dates events from the reign of the king or emperor in power when the event happened.

# References to "Secular" History and "Pagan" Astrology

Since the Bible does not provide a chronology of the Persian Empire, BAMM takes the position that the first year of Cyrus (which is chronologically tied to the subjection of Judah to Babylon seventy years earlier) is the only possible Biblical choice for the beginning of the 483 years to Messiah. The later dates in Ezra and Nehemiah cannot be verified from Scripture alone because those books do not relate the lengths of the reigns of the Persian kings. So to build a Bible-only chronology, the first year of Cyrus as sole-rex over Babylon is the mandatory starting point for Daniel's prophecy.

The Bible itself does not assert that any reliance on extra-biblical documents is "pagan." Jeremiah, Ezekiel, Daniel, Ezra, and Nehemiah, and some of the Minor Prophets give chronological references to the reigns of the rulers of Babylon and Persia. The Bible does not give us a list of the kings of Babylon and Persia and the lengths of their reigns, so the authors of Scripture refer us to "secular" historical sources to understand when these events happened.

The New Testament authors gave two major chronological references in the life of Christ, not back to the Decree of Cyrus, as BAMM's assumption would lead us to expect, but to the year of the current Emperor of Rome, and his representative in the Kingdom of Judea. Christ's birth is related to the census under Quirinius in the reign of Octavian Caesar Augustus, and His baptism is dated to the fifteenth year of Tiberius Caesar.

Thus we find the Bible records events in the chronological context of the empire or kingdom in which the events happened, referring us to the history of those empires to pinpoint the dates.

BAMM and Watchtower also reject the use of astronomical diaries and eclipses to pinpoint events in ancient history—calling them the work of "pagan astrologers".

However, the Bible tells us that God created the sun, moon and stars for the purpose of marking time (Genesis 1:14). It is therefore proper to use the heavenly bodies as a clock and a calendar. Their movements in their courses are an unbiased witness that can be used to pinpoint dates in ancient history when we have an ancient reference to an eclipse, or to the positions of the planets against the ecliptic.

While it is true that the ancients fell into idolatry by worshiping the members of God's heavenly calendar as "gods", their errors do not nullify God's original purpose in creating the celestial clock. Indeed, the fact that the daily astronomical records of pagan astrologers confirm the chronology of the Scriptural text glorifies the God of the Bible. The "wise men" of the East were led to Christ literally—by their observation of the heavens, the details of which may be beyond our knowledge today. Yet the Gospel accounts embrace the journey of the eastern kings to worship Christ the King as fully appropriate, regardless of the fact that many conservative Christians today would consider their study of the heavens to be "astrology".

Given these facts, we reject the rhetoric of BAMM and the Watchtower and we believe Christian scholars should feel free to use the history, chronology and astronomy of the ancient world in our own study of history—so long as we adhere to the supremacy of Scripture. An ancient source that clearly contradicts the Scriptures must be rejected. But where the Bible is silent, or where there are several possible scenarios that may fit with the Bible's data, ancient sources can be used to shed light and fill in the gaps in our knowledge.

Furthermore, BAMM relies heavily upon astronomers (Isaac Newton and Robert Newton) using eclipse data to criticize Ptolemy and Greek chronology; but their adherents trot out the accusation of "astrology" when the use of eclipse records disagrees with their chronology. David Austin (2008) repeated this argument in the Journal of Creation, emphasis added:

Concerning the length of the Persian Period and whether the Darius of Ezra 6:14 is the same king as Artaxerxes of 7:1, these problems will only be solved if, with the Reformers, we accept the biblical doctrine of sola scriptura (Scripture alone). It is of critical importance that in choosing between the Heathen Astronomer (and Astrologist—see Acts 19:13–20 where the books of 'curious arts' were burned before all men!) and the Hebrew Prophets, we ultimately depend only on the Word of God, which 'is a lamp unto my feet, and a light unto my path' (Psalms 119:105).

They cannot have it both ways. Either astronomy and eclipse records are valid tools for studying history, or they are not.

# Alternate Biblical Chronologies

There are several possible interpretations for the chronological data in Daniel, Ezra, and Nehemiah that synchronize with the accepted chronology of the Persian Empire.

A number of alternative chronologies were published by the late 1880s, and available to Anstey and Bullinger. Isaac Newton, Prideaux, and Jamieson, Fausset, and Brown all argued that the countdown began with the degree given in the seventh year of Artaxerxes, assuming that he began to reign in 465 BC (Jamieson, Fausset, and Brown 1884). More recent solutions to this problem include those of Gertoux (2018) and Jones (2005, 224–246), both of whom argue that Artaxerxes began to reign in 475, but for different reasons. While Jones assumed that Artaxerxes I had a ten year co-regency with Xerxes, Gertoux proves by numerous dated tablets and astronomical calculations that Xerxes had a ten year co-reign with Darius I. Either solution places the twentieth year of Artaxerxes I in 455/454 BC, which is 483 years before AD 30, which many scholars consider to be the year of the Crucifixion.

The authors take a more nuanced position, which has not yet been published. We find that the two decrees of Artaxerxes I were essential to restoring both the worship and the nationhood of Judah. Thus the second decree in the twentieth year of artaxerxes in 454 BC started the countdown. The death of Ezra 49 years later in 405 BC ended the first period of seven sevens, fully restoring the nation. The next period of sixty-two sevens ran from Ezra's death to the Crucifixion of Christ in AD 30.

While BAMM identifies most of the kings referred to in Ezra and Nehemiah as different titles for one person, Darius Hystaspes, Jones interprets each title in those books as referring to a different individual emperor—which is a more literal, though not necessarily required, interpretation of the text. These are not the only possible interpretations, either.

Additionally, there are three historical decrees by Persian Emperors relating to the rebuilding of Jerusalem and the Temple, any of which could be the one Daniel said would begin the 490 years.

And finally, the prophecy is not very clear as to what the *terminus* of the 483 years would be: the birth, baptism or the death of Messiah, or the taking of the Gospel to the Gentiles. Many scholars believe it was the anointing (baptism) of the Messiah, but the text of Daniel does not specify that.

So we have three sets of variables that must be correctly solved in order to correctly interpret Daniel's prophecy:

- 1. Correlate the seven names of the Persian kings referenced in Scripture to the names we know from history.
- 2. Determine which of the four decrees was the *terminus a quo* of the 483 years.
- 3. Determine which Gospel event was the *terminus a* quem of the 483 years.

Since there are multiple possible interpretations that are faithful to Scripture, the argument that the issue is pagan astrological chronology versus the Bible is clearly a red herring.

Having rejected the fallacious rhetoric we are ready to look at the question objectively. Given several chronological interpretations of the Scriptures by sincere biblicists, does the weight of ancient historical and astronomical evidence of the Neo-Babylonian and Persian periods support the BAMM chronology and their assertion that Eratosthenes fabricated eighty-two years of Persian history?

# Witnesses Supporting the Conventional Chronology

The arguments of the BAMM school are marshaled to support the assertion that the decree in the first year of Cyrus had to be in 457/456 BC, 483 years prior to the baptism of Jesus Christ in AD27/28. Bullinger differs slightly by dating the 483 years from the decree of Cyrus in 454 BC to the crucifixion, which he dates as AD29.

Since the accession of Cyrus marked the end of the Neo-Babylonian Empire and the beginning of the Persian Empire, this is one of the better dated events in ancient history.

There are several lines of evidence which all agree that the year that Babylon fell to the army of Cyrus was 539BC. There is considerable variation of opinion as to whether his first year as "sole-rex" was 538 or 536BC.

# 1. The Achaemenid Kings

The first set of witnesses confirming the chronology of the Royal Canon are the Persian Kings themselves. They left inscriptions testifying to their existence as well as their lineage from Cyrus the Great and Darius Hystaspes.

# Achaemenid Inscriptions

Inscriptions have been found from the following Achaemenid rulers:

- Darius I the Great—64
- Xerxes I—25
- Artaxerxes I-3
- Darius II Nothus—5
- Artaxerxes II Memnon—8
- Artaxerxes III Ochus—2

Thus far, no contemporary inscriptions have been found for Artaxerxes IV Arses or Darius III, neither of whom ruled for very long.

#### The Palace of Artaxerxes III Ochus

During the years 1931–1940 reliefs, tombs, and inscriptions of the Achaemenid kings were excavated in Persia (Iran). Artaxerxes III Ochus recorded the following inscription, known as "A3Pa", in two locations—the newly-built western staircase of the Palace of Darius and another copy on the Palace of Artaxerxes I, on the northern stairs.

The A3Pa inscription reads as follows: (Schmidt, 1953, 224)

Says Artaxerxes the great king, king of kings, king of countries, king of this earth:

I (am) the son of Artaxerxes (II) the king: Artaxerxes (was) the son of Darius (II) the king: Darius (was) the son of Artaxerxes (I) the king: Artaxerxes (was) the son of Xerxes the king; Xerxes was the son of Darius (I) the king; Darius was the son of Hystaspes by name.

The existence of these twin inscriptions obviously disproves the majority of Anstey's assertion that some of the kings from Darius II to Darius III were fabricated by Eratosthenes.

Not to be deterred by facts in cold stone, Anstey (263) dismissed this inscription as the forgery of a Greek tourist:

In fact, what we have here is just what we should expect a dilettante tourist, with some knowledge of Persian, to carve on the ruins, if he had learned from Ptolemy and other late compilers the succession of the Persian monarchs and the relation between them. Standing alone, the Inscriptions of these later monarchs after Xerxes are not sufficient to authenticate the existence of the Kings whom they claim as their authors.

Fig. 1 is a photo of the inscription that Anstey alleged was the work of a "dilettante tourist". Note the exquisite quality of the stone carving and the centrality of the inscription in its mid-relief stone "picture frame" that appears to depict the historical figures named in the inscription.



**Fig. 1.** Palace Darius W. Entrance Inscription. License CC0 1.0 Universal. Used in accordance with federal copyright (fair use doctrine) law.

Anstey's anonymous "tourist" was not only fluent in ancient Persian and the Aryan Script, but he seems to have also been a world class sculptor in addition to being a forger and a vandal.

Applying the principle of Occam's Razor, the simplest explanation for the twin inscriptions and their exquisite artwork is that they were commissioned by the very same wealthy Persian Emperor whom the text claims as the author of the inscription.

This leaves only Artaxerxes IV Arses and Darius III unattested by their own inscriptions or seals. However, we do find references to them in the astronomical tablets which were dated in the year of the king. Those two kings together are only supposed to have reigned six years, and Darius III is well attested from other sources as the opponent defeated by Alexander the Great.

If we grant Anstey that Artaxerxes IV Arses never existed (which we do not), then deleting his reign still leaves BAMM apologists with 80 more years that cannot be removed without erasing real historical persons.

# 2. The Parian Chronicle

Though Anstey rejected the "pagan" chronology of Ptolemy, he recruited "The Parian Marble" to his cause—a "pagan" stele discovered on the island of Paros in the Aegean Sea that relates the history of the Greek world from the sixteenth century BC through the year 264BC (fig. 2). Anstey's main historical argument was that the Parian Chronicle only mentioned six Persian kings—therefore six is all that there were (Anstey 1913a, 289).



**Fig. 2.** Parian Marble. Image: parian\_marble\_wikimedia\_ commons.jpg. License: Wikimedia Commons. Used in accordance with federal copyright (fair use doctrine) law.

Anstey neglected to mention to his readers that the Parian Chronicle is not a king list. It gives the number of years from each of a series of events to the carving of the stele in 264 BC.

The chronology given by the Parian Chronicle agrees (±1 year) with the conventional chronology of Persia back to Cyrus the Great. However, it differs on older dates prior to the Achaemenid period. The fact that only six Persian kings were mentioned is due to the fact that the author of the Parian Chronicle only recorded events that he considered important to the Isle of Paros, such as the battles of Thermopylae and Marathon. The final missing fragment of the Parian Chronicle was re-discovered on Paros, proving the stele's authenticity, and published in 1897, over a decade before Anstey published his book (Rotstein 2016).

The chronology of the Parian Chronicle is devastating to BAMM's argument because it precedes Eratosthenes by more than 30 years and Ptolemy by almost four centuries—proving that its chronology cannot be the product of either Eratosthenes or Ptolemy. It records the year of the accession of Darius the Great thus: (Rotsein 2016)

From the time Darius became king of Persia, after the magus died, [2]56 years (=520/19, 519/8 BCE), when...was archon in Athen[s].

Though the hundred digit, "[2]", is interpolated, this entry is both preceded and followed by events with all three digits legible, making it certain that the original text records 256 years from the accession of Darius the Great to the year that the Parian Chronicle was carved. Thus the Parian Chronicle that Anstey cited to prove his case actually records that Darius the Great came to the throne of Persia around the year 521/520 BC—disproving BAMM's thesis.

The chronicle also gives dates for Marathon and Thermopylae that agree with the accepted chronology (Rotsein 2016).

From when the Athenians fought at Marathon against the Persians, and Ar[taphernes the] nephew of Darius, [and Da]tis the general, which battle the Athenians won, 227 years, when the second [Ph] ain[i]p[pid]es was archon at Athens. Aeschylus the poet fought in this battle, aged 35.

From when Xerxes lashed together the bridge in the Hellespont and dug through Athos, and the battle in Thermo[py]lae took place, and the sea battle of the Hellenes against the Persians around Salamis, in which battle the Hellenes were victorious, 217 years, when Calliades was archon in Athens.

Furthermore, the Parian Chronicle records the existence of both Artaxerxes II Memnon and Artaxerxes III Ochus: (Rotsein 2016)

[From when Philip son of Amyntas] is king of the [Ma]cedonians, and Artaxerxes died and his son Ochus [is king, \_\_\_\_\_ years, when \_\_\_\_\_ was archon in Athens].

The year for line 77 above is illegible, however it lies between entries with the dates of 104 and 93 years prior to the inscription of the chronicle, proving the existence of two of the kings that BAMM claim never existed, Artaxerxes II and Artaxerxes III, and that they lived more than a century after Xerxes invaded Greece.

Given that Artaxerxes II and III had long reigns totaling 67 years, Anstey requires their removal in order to get anywhere close to cutting 82 years out of the Persian chronology. Obviously the stubborn insistence of the Parian Chronicle that these two kings did indeed exist completely invalidates Anstey's thesis. Fig. 3 shows a coin issued by Artaxerxes III.



**Fig. 3.** Artaxerxes III Coin. Image: https://commons. wikimedia.org/wiki/File:KINGS\_of\_PERSIS.\_ Ardax%C5%A1ir\_(Artaxerxes)\_III.\_1st-2nd\_century\_ AD.jpg. License: Wikimedia commons. Used in accordance with federal copyright (fair use doctrine) law.

Finally the chronicle lists the battles between Alexander the Great and Darius III at Issus and Arbela in lines 103 and 106 as having occurred 70 and 68 years prior to the chronicle respectively.

The Parian Chronicle demonstrates that Anstey, the main apologist for the BAMM school, cannot be trusted to accurately report original sources in his book. He misrepresented the testimony of his star ancient witness—the Parian Chronicle—putting a gloss on the facts to make them appear to support his belief, while omitting data that did not agree with his theory. This method of reporting is unfortunately typical of cult apologetics, and has misled many sincere biblicists who have not gone farther than Anstey to check his facts.

Furthermore, Anstey misrepresented Sir Isaac Newton, and even misquoted the Royal Canon, which leads us to believe that none of Anstey's quotes from original sources can be taken at face value. Anstey's claims must be verified, which Phillip Mauro and Ernest Martin clearly failed to do.

# **Deriving the Chronology Independently**

And now we bring forth a multitude of witnesses by which we can derive a chronology back to the first year of Cyrus from dates in the Seleucid Era through the records of different cultures around the Mediterranean and Near East.

- A. Chroniclers from the second century BC to the fourth century AD all agree fairly closely with each other on the main points of Neo-Babylonian and Persian chronology. These include:
  - Manetho
  - Berossus
  - · Diodorus Siculus
  - Apollodorus
  - Eusebius
  - Polyhistor
  - · The Parian Chronicle

Clinton (1851) refers to over 50 Greek sources in establishing his classic chronology of Greece independently of the Royal Canon. Clinton's masterpiece was available to Anstey and Bullinger, and Anstey quotes Clinton's chronological table in the second volume of his work (Anstey 1913b). But his attribution of Clinton's chronology to Ptolemy shows that Anstey had not really read or comprehended Clinton's work beyond copying his chronological tables.

# Manetho

We will take just one Chronicler, Manetho of Egypt, who lived before Eratosthenes. While his original writings have been lost, they were extracted by later historians, Syncellus, Africanus, Eusebius, and Moses Choronesis giving a fourfold witness to his numbers:

Manetho lists the Persian rulers from Cambyses II down to Darius II as the 27th Dynasty of Egypt as follows: (Waddell 2004, 175)

•	Cambyses	6 years
•	Darius	36 years
•	Artabanus	7 months
•	Artaxerxes	40 years
•	Xerxes II	2  months
•	Sogdianus	7 months
•	Darius II	19 years

The Persians lost control of Egypt around the time of the death of Darius II, but reconquered it 64 years later under Artaxerxes III. The 64 year gap in the Persian rule of Egypt recorded in Manetho does not help the BAMM apologists, because Manetho's Twenty-ninth and Thirtieth Dynasties ruled during the gap, and their reigns totaled 63 or 64 years depending on which version of Manetho we consult.

Manetho listed the last three Persian rulers of Egypt as the Thirty-first Dynasty starting with the twentieth year of Artaxerxes III: (Waddell 2004, 177).

•	Artaxerxes III Ochus	2 years
•	Artaxerxes IV Arses	2 years
•	Darius III	4 years

Thus the list of kings and length of reigns of Manetho's Twenty-seventh through Thirty-first Dynasties agree with the Royal Canon within a year, and include all of the Persian kings except Artaxerxes II Memnon, whose existence has already been proved from the inscription of his son, Artaxerxes III Ochus.

# **Astronomical Diaries**

Astronomical Diaries excavated from cities throughout the Near East record direct observations, as well as lunar Saros Cycles over the entire period from the second century BC back to the seventh century BC. These diaries were dated in the year of the currently reigning king or emperor over Babylon, and there are multiple diaries that overlap with each other for almost the entire period. These diaries show that the Royal Canon was not invented by Ptolemy, but that it was in current use by astronomers during the time period that it covers, centuries before Ptolemy was born.

The table in fig. 4 was compiled by the authors from Aboe and Jonsson's data. This figure shows the years covered by LBAT tablets and other astronomical diaries from 751 down to 276 BC. (Aboe et al. 1991) (Jonsson 1998) There are a few short gaps in the overlap of the tablets, all less than seven years, but the entire period of the Persian Empire after Cambyses is completely covered by multiple tablets with no gaps.

When combined with Saros tablets, the gaps in coverage are fixed and are of known lengths, so there is no room to add or subtract years from the entire scheme.

# **Business Tablets**

Many thousands of business tablets have been excavated from the Neo-Babylonian and Persian periods. These tablets recorded contracts, loans,

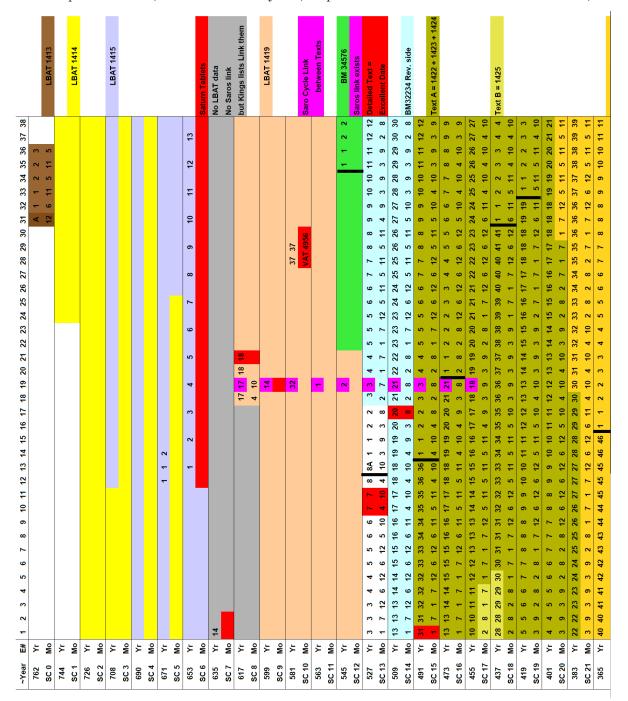


Fig. 4. LBAT Data for Achaemenid Period. License: Created by the author

debts, and property sales and were dated in the year of the currently reigning king. There are dated tablets for every single king listed in the Royal Canon for the Persian and Neo-Babylonian period, and in most cases there are one or more dated tablets for each year of the king. The least attested kings are Artaxerxes I and Darius II, for whom some years have no tablets. However, several dated business tablets exist for both of these kings in the Murashu Texts (Hilprecht 1893, vol. IX).

# Computing from Neo-Babylonia Forward to Cyrus

Alternatively, we could use astronomically confirmed dates from the Neo-Babylonian Era to count forward to the first year of Cyrus. About 2,000 tablets have been recovered from Babylon, Nineveh, and Uruk that recorded astronomical observations in the year of the reigning king. There are several tablets that allow precise astronomical confirmation of the dates and length of reigns of kings in the Neo-Babylonian Empire. If these tablets allow us to absolutely confirm any year in the Neo-Babylonian Empire in terms of BC years, then we can also date the accession of Cyrus the Great.

# VAT 4956

Astronomical Diary VAT 4956 is dated from the first day of the first month of Nebuchadnezzar's thirty-seventh year, until the first day of the first month of his thirty-eighth year. Among the hundreds of observations on this tablet, 30 are sufficiently precise to allow an absolute calculation of the date of the thirty-seventh year as 568/567BC (Sachs and Hunger 1988). These observations include the positions of the moon and five planets against the zodiac over the course of a year. Such a combination of planetary positions would not be duplicated in thousands of years.

Given the known chronology of the kings of the Neo-Babylonian period, Nebuchadnezzar's thirtyseventh year was 30 years before the accession of Cyrus, firmly dating that event to 539/538BC.

# LBAT 1419

Lunar Eclipse Tablet LBAT 1419 records an uninterrupted series of eclipses at eighteen-year intervals (Saros Cycles) from 609/608BC to 447/446. (Brinkman and Kennedy 1983) Table 2 shows the entry date for the eclipse on the tablet in the year of the king on the left, and the astronomically calculated BC date on the right.

This shows that the year 457 BC was the second year of Artaxerxes as sole-rex (Jones 2005, 239) of Persia, not the first year of Cyrus as BAMM contends.

Table 2. Eclipses from LBAT 1419.

Nabopolassar 17th year	609/8 вс
Nebuchadnezzar 14th year	591/0вс
Nebuchadnezzar 32nd year	573/2вс
Nabonidus 1st year	555/4 вс
Cyrus 2nd year	537/6вс
Darius 3rd year	519/8 вс
Darius 21st year	501/0вс
Xerxes 3rd year	483/2 вс
Xerxes 21st year	465/4 вс
Artaxerxes 11th year	457/6 вс

# LBAT 1420

LBAT 1420 is another lunar eclipse tablet that records annual lunar eclipses from the first through the twenty-ninth years of Nebuchadnezzar, with two dozen eclipses recorded. (Pinches and Sachs 1955) Unlike a Saros tablet, which records one repeating series of eclipses at eighteen year intervals, this is a record of all of the eclipses during the first half of Nebuchadnezzar's reign, coming from different Saros series. All of them can be calculated and match the conventional dates of Nebuchadnezzar's reign.

The observed series of eclipses on this tablet could not have repeated for 363.5 years before or after the event and even then they would have fallen at different times of the solar year, and therefore different named months. This makes it impossible to shift ancient history 82 years forward, as BAMM would have us do.

#### **Additional Astronomical Tablets**

There are several more astronomical tablets that give precise absolute dates for Neo-Babylonian and Assyrian kings that confirm the accuracy of the Royal Canon.

A. The Saturn Tablet (BM 76738, BM 76813) records the dates of the first and last appearances of the planet Saturn for fourteen consecutive years during the reign of Kandalanu in the years 647–634BC (Sachs 1955, 223; Walker 1999).

B. Saros Tablet LBAT 1417 records eclipses from four Saros Cycles from 686 to 632 BC confirming the reigns of Sennacherib down to Kandalanu as given by the Royal Canon (Sachs 1955, 223). Obviously, if the Assyrian section of the Royal Canon is astronomically verified, then it is impossible to subtract 82 years from the Persian period, unless the 82 years is added back to the Neo-Babylonian or Assyrian period. However, as we've shown the Neo-Babylonian period is extremely well documented, and there isn't room to insert 82 years of history there or in the Assyrian period between Kandalanu and Nebuchadnezzar.

C. Eclipse Tablet LBAT 1421 records two eclipses in the sixth and twelfth month of a king's 42nd year. (Stephenson 1997, 152) This small tablet is part of a lunar eclipse table. It now records only two eclipses: in the sixth and twelfth months of the 42nd year of an unspecified king. Such a long reign could only refer to either Nebuchadnezzar II (42nd year=563/2BC) or Artaxerxes II (363/2BC). However, the terminology is early, and in any case there were only eclipses in the third and ninth months of the appropriate year of Artaxerxes II. Hence the former [king] must be intended.

This again confirms the dates of Nebuchadnezzar and the Royal Cannon. Again, it is impossible to move the first year of Cyrus down to 457 BC unless 82 years is added to the Neo-Babylonian period.

#### Conclusions

In the 100 years since Anstey snipped 82 years out of Persian history neither he nor his followers have made any effort to give us an alternative model of history. Even Anstey did not specify which 82 years of history were the invented ones that must be removed, or which kings were the duplicates, or how long the "real" kings reigned.

Twenty-five years before his death, Ernest Martin expressed his intention to build an alternate chronology based on Anstey that would correctly incorporate the Saros Cycles of the ancient astronomical tablets, but he never did so. Had he seriously attempted it he would have found that Anstey's hypothesis is impossible to reconcile with the celestial clock.

There are a multitude of ancient witnesses to the chronology and history of the first millennium Babylon, Persia, Egypt, and Greece. As we have shown, it is impossible to delete 82 years or move them further back in time.

Martin Anstey misrepresented his witnesses, Sir Isaac Newton, the Parian Chronicle, and the Royal Canon while ignoring contrary evidence in order to insist that we must accept his 82 year adjustment to the history of the world. But he did not provide his readers with a replacement scheme.

Anstey also ignored alternative interpretations of the biblical data that had been published by Isaac Newton and others, even though he referenced Newton to support his attack on Eratosthenes and Ptolemy.

Anstey introduced the cult rhetoric of "pagans versus the Bible" which contributed to the withdrawal of fundamentalism in the early twentieth century from rigorously engaging historical and scientific evidence. The creation science movement of the past 50 years has been picking up the pieces and moving the Christian world toward reengagement of science and history with the reliability of the Scriptures.

Anstey's followers, including the author in an

early paper in 2007, have regurgitated his claims without verifying his sources and continue to do so in the twenty-first century. We find that a chain of erroneous logic and baseless rhetoric has been passed down from Sir Isaac Newton to the twenty-first century without anyone digging into the footnotes and verifying the claims of these "scholars." The resulting false rhetoric has created needless controversy and obstacles to genuine biblical scholarship of history and chronology.

While the Jews created their abridged chronology in order to justify their failed Messiah and The Watchtower Society defend their defective chronology as one of the key tenets of their religion, we cannot see why Anstey or any orthodox Christian scholar would set up his own chronological interpretation of Daniel as having the weight of Scripture itself. But that is what Anstey did by equating his interpretation of Daniel with the only possibility that comports with Scripture.

The great irony of Martin Anstey's book is that he claimed that Eratosthenes fabricated 82 years of history in order to fit a preconceived chronology, when the facts seem to show that it was Anstey who would have us delete 82 years of real history in order to fit *his own* preconceived chronology.

Like the Seder Olam and the Watchtower Society who altered history without providing justifying evidence, we can only conclude that Martin Anstey created confusion around the chronology of Daniel's prophecy without providing his readers with a viable alternative history of the Persian period. It is time for biblicists to lay Anstey's unfounded claims to rest and hold ourselves to a higher standard and actually verify original sources, rather than blindly repeating rhetoric from our predecessors.

Please note that while this paper supports the chronological accuracy of the Royal Canon back to the eighth century before Christ, our conclusions here are limited to the period of the Royal Canon and should not be understood as an endorsement of conventional historical chronology for older dates and events.

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