Severus Sebokht

Letter to Basil of Cyprus (ca. 662 AD)[1]

[1] Syriac texts do not seem to have a *Clavis* by which we may refer to them. This draft translation was created by Daniel Knister in 2022. Permission is given by the translators to distribute this draft publicly and freely in any form of print or online on any website, so long as any changes made to it are noted.

Introduction

This is the famous letter of Severus Sebokht that makes the first mention of "Arabic" numerals outside of what is now India. While that particular passage (as well as a few others) has been translated into English at several points, the rest of the letter is quite interesting as well. Hence this current effort!

The main concern of the letter is that Severus feels the Greeks are quite arrogant in asserting superiority to other cultures in matters of natural philosophy and astronomy. He takes pains to show that, while the Greeks are skilled in these fields, his people, the Syrians, deserve a level of respect from the Greeks. It should be noted that "Syrian" here should not be confused with modern Syria. Here, Syrian refers to the descendants of the Assyrian people. We could also perhaps say Syriac, as in Syriac Orthodox.

The letter is addressed to a monk and traveling priest (periodeutes) named Basil on the island of Cyprus. Basil lived in a Greek monastery at the time, and Severus asks that Basil relay several astronomical questions regarding issues in Ptolemy's work to the other monks there. It is not quite clear if he really desires the answers to these questions or if he is more testing their knowledge on these matters. This letter (as well as some of the other works of Severus) is recorded in the Paris manuscript, BNF Syr. 346, ff.168v-171.

The Syriac text and a German translation have been published by Edgar Reich.[2] The present translation is from the Syriac, but references were made to Reich's translation and notes. Note that words in square brackets [] are added by us for clarity, rather than by Severus. Thanks to Roger Pearse for editorial suggestions. Daniel Knister and S.N. Yeager, University of Michigan.

Comments can be offered to Daniel at [first initial][last name] @ umich.edu

[2] Reich, Edgar, "Ein Brief des Severus Sebokt", in: Lorch, Richard & Folkerts, Menso (Ed), *Sic itur ad astra: Studien zur Geschichte der Mathematik und Naturwissenschaften: Festschrift für den Arabisten Paul Kunitzsch zum 70. Geburtstag*, Wiesbaden (2000) p.478-489.

THE LETTER TO BASIL OF CYPRUS

I wrote to you brother because of the fact that some of the Greeks you are with are saying that the Syrians know nothing about these things – and I am speaking of the calculation of the stars and the eclipses of the sun and the moon – while the Greeks think they alone have all knowledge, as if because they speak in Greek, they were first to know these things before the wise Babylonians. But concerning this knowledge, the Babylonians were first in finding it and not the Greeks – as all the Greeks' own writings testify; after the Babylonians, then the Egyptians, and then the Greeks. But the Babylonians – I mean the Syrians – know something about these things, as they [the Syrians] were the first discoverers and teachers of these many children.

And this is testified thus for one example by Ptolemy in the *Syntaksis* [3]. For when he begins in this the calculation of the sun and moon and the wandering stars, there is not a count from the years of Greek kings, but from the Babylonian kings; specifically, Nebuchadnezzar[4]; not the one that was in the days of the prophet Daniel, but earlier than that one. Then also, Ptolemy put in the *Syntaksis* that there are 424 years from Nebuchadnezzar, this first of the kings among the Babylonians and Persians, until Philipp the Macedonian[5] (the one that was after Alexander[6], builder of Alexandria). He [Ptolemy] indicated by this way, the beginning and the foundation of those calculations.

Even the start and foundation he found from the Babylonians, and not from the Greeks. And therefore, upon this foundation which he discovered from them, upon it, he added the great calculations that he did.

The Babylonians are the Syrians, and they [the Greeks] are testifying that they [the Babylonians, and therefore the Syrians] are wiser than the Greeks. Again, they [the Greeks] shall learn this from themselves. For when they ask the oracle, "Which people have always feared God?" They say that the oracle said thus, that "the Chaldeans alone had attained wisdom, and further the Hebrews worshipped the king who was God, existing of himself."

But the Chaldeans were known first as Babylonians, but the Babylonians are Syrians and as the testimony of the oracle says concerning them: "The Syrians alone achieved wisdom."

But concerning the delay of the teaching, that is to say, the lack of skill of the Greeks, let them hear again from the Greeks. I speak now from the philosopher Plato who said this first – and expressly toward the Greeks – as is written in the treatise *Timaeus*. When Solon, wisest of the wise returned from Egypt, he [Plato] says through

[3] Commonly known as the *Almagest*, a corruption of its Arabic name, the original Greek name can be transcribed as *Mathematike Syntaksis*

[4] This is in fact Nabonassar, not Nebuchadnezzar

[5] This is a reference to the list of kings in the *Almagest*, included alongside the astronomical records and calculations.

[6] i.e. Philipp Arrhidaeus, not Alexander's father Philipp

Critias, these things that he [Solon] had heard from an Egyptian priest who was very old, for he [the priest] said to him, 'Oh, Solon, Solon, you Greeks are children in every time, and there is not any old Greek' and after, he says that 'You Greeks are infantile in your souls. For you do not have even one ancient opinion among you; not an old teaching aged through the times[7]. Writing passed to you by many generations died without a voice[8]', so goes this testimony [of Plato] that they did not know writing, "But all their dead are without a voice" – stupid and without reason.

These people are clamoring that knowledge of mathematics and astronomy came from them first. This is ridiculous! For speech [*lexis*], that is to say the word, is not knowledge, but knowledge relies on the word. And language is not the cause of wisdom, but wisdom is the cause of language.

For even the wise Greeks wisely define philosophy not as name and word and lexis, that is to say word and Greek speech. But philosophy is the knowledge of "things which are"; and knowledge of facts divine and humanly; and crafts of crafts and knowledge of knowledges; and meditations on death; and to what extent it is possible for a person to be in the likeness of the divinity. And this is the beloved of beloved of the divine – and it is not the province of Greeks alone, but of all who earnestly seek it –, whether Greek or non-Greek.

But thus far I have kept silent from speaking about the knowledge of the Hindus (Indians) – and these are not even Syrians! – and about their careful discoveries of this teaching of astronomy and the methods of speaking of their calculations – calculations which surpass description – but I speak of the nine characters[9] . These are more skilled than the Greeks and the Babylonians! If some perceive of themselves that they alone have achieved the end of knowledge because they alone speak Greek, perhaps they may find – albeit slowly – that there are also others that know something; not Greeks alone, but also people from other nations with a different language.

And I say these things, not that I am rejecting the wisdom of the Greeks but that these things are the knowledge of other peoples. For all this does not escape my notice; I am seeking to show that this is common knowledge and for everyone who seeks it carefully, that is to say, whether Greek or non-Greek. But because of their wisdom and

[7] Pulling from the copy of *Timaeus* hosted by the MIT's Internet Classics Archive, the relevant section here is spoken by Critias, relating a story about Solon's visit to Egypt: Thereupon one of the priests, who was of a very great age, said: O Solon, Solon, you Hellenes are never anything but children, and there is not an old man among you. Solon in return asked him what he meant. I mean to say, he replied, that in mind you are all young; there is no old opinion handed down among you by ancient tradition, nor any science which is hoary with age.

[8] Again, from MIT's Archive, the relevant section here is several sentences after the prior selection. The priest is noting that there were several world floods that the Greeks were unaware of, but the Egyptians had recorded. The wording here is somewhat different in that in *Timaeus*, but the idea is similar. The priest comments that generations of Greeks had died due to celestial deluges and the survivors (being shepherds in the hillsides and mountains) did not preserve knowledge of writing: And this was unknown to you [Solon], because, for many generations, the survivors of that destruction died, leaving no written word.

[9] "Arabic," or as is demonstrated here, Indian, numerals originally went from 1-9. Zero existed as a sort of "null" or blank space at this time.

knowledge, these people [the Greeks] are self-convicted in their pride among themselves.

May I request the knowledge of these [arrogant Greeks], by your [Basil's] efforts, so that they may kindly teach us, as we are in doubt?

First: Why is the mean motion of the sun called apogee[10] by Ptolemy? But then, the mean of the moon's motion is called apogee *ekkentrou*[11]? For the movement is not the *apogee*, but the mean is moving in the middle of *apogee* and *perigee*[12]. But again, why does he name the latitude of the moon, or its *apostasis*[13], from the *dia meson*[14] of the zodiac to the north and to the south *boreon peras*[15]?[16] Additionally, why do Aphrodite [Venus] and Hermes [Mercury] alone from among those remaining five stars not cross from one form of the sphere before the sun? Not only diametron but also neither the others. Indeed, I say from trigonon and tetragonon and hexagonon but only the synodos[17]. And why does he [Mercury] have twice the stirigmoi[18]? And what is the reason that these five stars have stirigmoi? And why do the sun and moon not have stirigmoi?

But along with these, why for the calculation of these five moving stars does Ptolemy always add to the calculation the star that doesn't move which is called the heart of the lion[19]? And how can this one not shift and not be wandering[20]? For in degree it is fixed at six of the lion though he says that it moves one degree to the east in a hundred years.[21] And at the same time along with it, all the zodiacs and again all those that are called parantellontes?[22]

And how, since the calculation of the heart of the lion in this year of 661/662 AD[23] gives 127 degrees and 45 minutes, since it will move one degree in one hundred

[10] Apogee - the Greek is apo + geios and it denotes the point of the object's orbit that is farthest from Earth
[11] Eccentric i.e. Earth is not at the center.
[12] Perigee – the Greek is peri + geios and denotes the point of the object's orbit that is closest to the Earth
[13] Latitude as in the position of the Moon in the North-South direction in ecliptic coordinates, not a latitude in the common sense as a geographic location on Earth!
[14] From the middle
[15] Northern end
[16] Reich notes that these first two questions are likely in reference to the column headers of Theon's Handy Tables, not the Almagest. Specifically, the headers have "Amount of distance from the apogee or from the boreion peras". Severus is quite familiar with both Theon's Handy Tables and the Almagest, so Reich is of the opinion that this is likely just testing the knowledge of his opponents.
[17] Conjunction
[18] Fixed points – i.e. the heavenly bodies appear not to move on the time scale of a year or two. Specifically, Severus is saying that Mercury has two fixed points.
[19] Regulus or α Leonis
[20] Modern answer: it lies almost on the ecliptic plane
[21] In other words, these fixed stars only appear fixed. The ancients found from generations of astronomers' measurements that they are not truly fixed. However, their motion is slow enough to use them as fixed points in other calculations.
[22] Rising stars.
[23] Literally, this is "973 of the Greeks" – the traditional Syriac calendar counts from the Seleucid era – presumed to begin Oct. 1st, 312 BC. No calendar month is given, so it could be 661 or 662.

years then were there not 12,775 years from the beginning of the cycle? But if another and another cycle has passed, all the cycles would have been completed over 3 and 6 thousand years. How would the world not have a great many years?[24]

But again, why do these so called apothlismithikoi (astrologers') tropica symeia(signs)[25], which move to the east one degree in 80 years, then in 640 years having moved 8 degrees from this zenith they go back to the west, and this without end? And why do the ancients add the calculation of these to the sun and moon and the 5 stars, yet Ptolemy did not?

These few difficulties, as a Syrian and lacking learning, I ask of those who are zealous that in the Greek language alone there is knowledge, through your mediation. I request that they do this with diligence for my relief, that they may end for me these difficulties stated above.

I am grateful to God foremost, as He is the giver of wisdom and knowledge, but also to them[26] for their knowledge. And indeed also to you, dear brother, that through you, and by your mediation, I have learned these things and the like.

Holy Severus Sebokht.

[24] Severus is perhaps referring to the age of the Earth and the fact that, when this was written, some of the Greek church reckoned that the Earth, based on the biblical account, was about six thousand years old.
[25] Turning points or solstices.
[26] The Greek monks that Basil is with.