

‡8 Establishment Historical Corruption 101

Mr.Magoo: “The Greatest Astronomer of Antiquity”

Ptolemy: Astrologer, Thief, & Inept Fraud Stealing 1000 Stars Venus DoubleDate BotchFaking *Geographia*’s Only Eclipse OBSERVING False Theoretical Events

[This paper is both condensation&expansion of that at www.dioi.org/jm02.pdf.]

A How Establishments Can Forge History When They Please.

A1 We learn from wealthy National Geographic’s friend Owen Gingerich, via the History of Science Society’s *Isis* 93.1:70 (2002 March), that the “*The Greatest Astronomer of Antiquity*” was **ASTROLOGY**’s patron saint, clumsy fabricator & thief **CLAUDIUS PTOLEMY**, 2nd century AD author of the *Tetrabiblos* (still astrology’s bible), who followed his crafty craft’s hype-tradition by naming himself after Roman&Greek royalty. Though pretending to promulgate an astronomy in perfect accord with reality, Ptolemy’s alleged empirical “observations” so wildly disagreed with that reality as to ultimately undo his fraud: either Ptolemy was computing celestial positions indoors from his false theories *without even knowing how false they were* or he was antiquity’s visually impaired Mr.Magoo.¹

A2 Harvard’s Gingerich, prominently involved in funding, conferences, & publication in history of astronomy, is supported in his fantastic superlative by the American Association for **Advancement** of Science’s *Science* 193:476, *Scientific American* 240.3:91, & historian-of-ancient-astronomy icon O.Neugebauer, the verbatim source (*History of Ancient Mathematical Astronomy* 1975 p.943) of that very superlative, a sales-pitch that’s generated decades of grant-funding, receipt of which is of course contingent upon going along with the ludicrous lie that plagiarist, fabricator, data-destroyer (www.dioi.org/j413.pdf §C1), and cut&paste² *Almajest*-compiler Ptolemy, **epitome of crackpot science & sellout-to-gov’t-power faker** (www.dioi.org/ju00.pdf fn 3 & §G4), was actually one of the giants of intellectual history. That lie is now so universally & thoroughly supported PUBLICLY by the US science establishment (while *EncylBrit* & Wikipedia are both fully wise to the truth) that even popsci publisher & Gingerich-pal³ *National Geographic* got in on the act in 2017, republishing in 2021 its same hilariously incongruous pairing of inept faker Ptolemy beside the immortal mathematical genius **ARCHIMEDES**: *DIO* 30 = www.dioi.org/ju00.pdf p.2.

¹ During pre-PC mid-20th-century, lovably and bumblingly weakeyed codger “Mr.Magoo” was for years a fave cartoon character, his voice affectionately supplied primarily by remarkably versatile actor Jim Backus and cartoon-dub-specialist Mel Blanc.

² Credit: Dennis Duke (www.dioi.org/jm02.pdf fn 23).

³ We owe so much to the geniuses of US science. Thus, it’s incongruous that intellectual zeroes, professional *sucophants*, & Jesus-flakes like Izzy Bowman & O.Gingerich (BOTH Mennonites!) get widely feared in US academe as money-controllers. **Coincidence**: each served the vindictive goals of the National Geographic Society (whose wealth in Bowman’s day was more than all “other” scientific societies combined and remains considerable even yet) in suppressing and/or falsely smearing the prime enemies of that wealthy pop publisher’s lies: Peary-skeptics Amundsen, Henshaw Ward (www.dioi.org/jo00.pdf), & DR, who is not only heavily responsible (www.dioi.org/ju00.pdf §M8) for undoing the 2 top science hoaxes of the 20th century (*both defended to the death by the*

B Hipparchan Sun&Star Data 280^y Later: Pagan Resurrection?

B1 The entire celestial edifice of Ptolemy’s long-revered *magnum opus*, the *Almajest*, was based on the Sun. After all, the zodiac’s zero-point is the Vernal Equinox, where&when the northward Sun crosses the celestial Equator every Spring. So it is worth examining all 4 of his fundamental solar observations: unlike 2nd century BC Hipparchos or 16th century Tycho Brahe, whose mean errors were but a few arcmin, Ptolemy’s mean error for the Sun (and thus contingent mean positions of Moon, planets, & [§F2] stars) exceeded a **DEGREE**, *though in perfect accord with Hipparchos’ 280^y-old solar tables*. But the tables were correct only **in the time of Hipparchos, not Ptolemy**, since they incorporated a solar speed based on a yearlength too long by 6^m, thus accumulating errors of 1^h/decade, which explains why Ptolemy (writing 28 decades after Hipparchos) reported that equinoxes&solstices occurred 1^d.1 later than actuality and (the same thing) put the mean Sun’s ecliptical longitude at 1^o.1 later than it actually was. [*Gingerich denies not a digit of the foregoing* — but ventriloquizing&lip-synching grant-funders insist **PTOLEMY IS THE-GREATEST anyway**, so what’s a canny Harvard-prof-politician & field-guru going to mouthe?] Moreover, not merely mimicking Hipparchan solar theory’s *mean* 1^d.1 error, Ptolemy faithfully subsumed its 0^d.4 *periodic* error, as well (www.dioi.org/j801.pdf ©1).

[How can scoffers at astrology possibly deny such consistent scientific evidence? — **Ptolemy’s occult powers brought Hipparchos back from the dead.**]

B2 But the remarkable aspect of Ptolemy’s alleged empirical research is that he reports he OBSERVED these cardinal events occurring at just the times Hipparchos’ flawed theory predicts. I.e., Ptolemy had the unique ability to look up into the sky & consistently *see the Sun and stars at their false theoretical positions instead of their true actual positions*: 4 times out of 4 for the Sun (*Almajest* 3.1&7).

B3 Waaay-more impressive: he did so about **1000 TIMES OUT OF 1000 for the stars**. What a DEDICATED theoretical observer he truly was! We don’t directly have Hipparchos’ original tables of the stars (as we do for the Sun), tho the 1025 stars of “Ptolemy’s” catalog (*Alm* 7.5-8.1), while out by (near his Sun’s mean error) *over a degree* (*PASP* 94:367 Table IV column p), for Ptolemy’s time exhibit but a few arcmin of mean error (www.dioi.org/j116.pdf §G4) for Hipparchos’ time. The “Ptolemy” stars’ errors even show nearly the same 0^o.2-amplitude *periodic error* of Hipparchos’ final UH solar theory (*ibid* §F3), quite incompatible with the Ptolemy Sun’s 25’-amplitude periodic error (www.dioi.org/j801.pdf ©1). (None of this ever cited by Hoskin-Gingerich-Evans’ “premiere” *JHA*, for obvious reasons.)

C The Enormity of Ptolemy’s Shamelessness.

C1 Virtually zero (www.dioi.org/tar.pdf §B3) historians-of-science realize that (‡11 §F4; www.dioi.org/g841.pdf p.16) the human eye can see to an accuracy over 100 times better than 1^o. Despite inevitable perfection-degrading problems with instrumental&reductional uncertainties, normal reported ancient observational data’s accuracy was ‘twixt 1’ & 0^o.1 (*DIO* 21 ‡9; *DIO* 22 ‡1 §B). So Ptolemy’s big ocular errors are worse than Magooey: they’re also systematic, thus giving away his theft of the catalog.

C2 But, 1800^y later, he’s blessed by the determined protection of a coterie of academically wellplaced modern apologists, who don’t (§C1) even know how accurate the eye is! Consider what Ptolemists ask one to accept as honest outdoor “astronomical observations” at p.xi of a conference boldly&unsmilingly called “Ptolemy in Perspective” (*Archimedes* vol.23, 2010, \$200), a 2007 CalTech [!!] Division of Humanities&SocSci conference: at

indiscriminate generosity of their mutual CERTIFIER — National Geographic), but is a prime exposé of the frauds of Ptolemy, religious idol of Gingerich, whose Hist.sci circle is doing NGS’ work in applying **ANY** scummy tactic (www.dioi.org/tar.pdf, www.dioi.org/jm02.pdf fnn 4-5&8, www.dioi.org/jm03.pdf fnn 4-6) to kill off DR & all his scores of “unexpected” (Ed Krupp, Griffith Observatory) discoveries (‡12 below; www.dioi.org/dd.pdf) regarding the advances of honest&ingenious *real* Greek science. **Not one of them discovered by The Greatest Astronomer of Antiquity.**

the moments (132-140 AD) for which Ptolemy reported 3 equinoxes, when the center of the Sun (semidiameter $16'$) crossed the celestial Equator, **no PART of the Sun even touched the Equator**. Ptolemy's solar errors were (H.Thurston *DIO* 8 †1 Table 1 and $\odot 1 \& \odot 2$): 132 AD Autumn Equinox: $+33^h$; 139 AD Vernal Equinox: $+21^h$; 139 AD Autumn Equinox: $+33^h$; 140 AD Summer Solstice: $+37^h$. No **PART** of the Sun was within $5'$ of the Equator at Ptolemy's Vernal Equinox time, or within $17'$ of the Equator at the times of his 2 Autumnal Equinoxes: all 3 positions **in EXACT accord with Hipparchos' solar tables**. If the reader draws diagrams of these situations, they will dramatically show the impossibility of such errors occurring in reality even once — much less 4 times-out-of-4. So CalTech has put its imprint on a book dressing up a known scientific criminal as honest. At \$200/copy.

D Team-Alibis: Legally Blind Scientists. Plagiarism as Inheritance. Using Tiny Random Errors to Excuse Massive Systematic Fraud.

D1 For decades, those who draw grants from studying the *Almajest* have glorified it (e.g., §H1 below) and excused the foregoing. The 1st line of defense is pure Magoo: ancient observations, instruments, and reductions were so incompetent that huge errors were routine, an excuse resorted-to by Neugebauer (*op cit* p.107), Yale University historian-of-science A.Aaboe (telephone 1976/3/9), & current *Journal for the History of Astronomy* Editor James Evans (www.dioi.org/jL09.pdf pp.103-104 = *DIO* 21 †9 §D). But that excuse is obviously irrelevant: legitimate ancient scientists' errors were usually random (*idem*), while The Greatest Astronomer of Antiquity's errors were ever in exact accord what was required to justify his models, most of which were deeply flawed, though he repeatedly & consistently pretended they perfectly reflected reality. (See R.Newton's lethal comment: *DIO* 8 †1 $\odot 7$.) The ancients-made-big-errors defense is also undone by the eye's acuity (§B2) and the fact that ancient goofs as large as 1° are rare-to-nonexistent for Kallippos, Timocharis, Aristyllos, Hipparchos, while *all four* solar observations of Ptolemy are of such magnitude. Neugebauer *op cit* p.118 calls it "absurd" to believe Ptolemy tampered with data to fake his models' reality, ignoring at least 2 motives, the 1st obvious, the 2nd hitherto-unperceived: [1] Working for the Serapic state religion's temple at Canopus, he had fiscal cause to fake predictivity, as astrologers have ever done to sell the product. [2] Ptolemy's geocentric model falsely forced all epicycles to be perfect non-eccentric circles, **hiding the reality: for outer planets' epicycles & inner planets' deferents, ALL 4 planar elements (not just mean longitude & motion but also eccentricity & apogee) would if accurate be EXACTLY equal the Sun's**, thus ripping off every remnant of Ptolemy's figleaf over heliocentricity (*AmerJPhysics* 55:237-238, 1987; www.dioi.org/j117.pdf §§E2-E3, 1991).

D2 The CalTech 2007 conference featured at p.126 an alibi, for fabricating data to support a false yearlength, which bears careful examination (emph added): "But let us look at this another way. Ptolemy decided *not to tamper with* the year[length] he had **inherited** from Hipparchus" (the very yearlength used to **indoor**-compute all 4 solar data). The historian-of-science here acts as if a *faker's tampering with data is the scientific & ethical equivalent of real scientists' tampering with theory when improving same*. Just 2 equally valid options for resolving theory-vs-data conflicts — crystal-clarifying for us just why historians-of-science have such trouble distinguishing a real scientist from an occultist fabricator, uncritically swallowing the latter's pretensions: not just hook, line, & sinker, but rod, reel, & fisherman.

E The Greatest Astronomer of Antiquity's Funniest AlmaJests

E1 The invaluable *Almajest* preserved math, procedures, & genuine pre-Ptolemy observations that would have been lost to us had it not survived (e.g., †6 §E5). But in it The Greatest Astronomer of Antiquity also bequeathed us a teasingly teeming treasure-trove of astonishingly amusing goofs. (For the full menu, see www.dioi.org/jm02.pdf = *DIO* 22 †2.)

E.g., at *Almajest* 10.1, Ptolemy says he observed the greatest evening elongation of Venus on 136 AD December 25. However, in the next chapter, *Almajest* 10.2, Ptolemy reports that he had actually **SEEN THE SAME EVENT, THIRTY-SEVEN DAYS EARLIER**: 136 A.D. November 18, and at "greatest" elongation less-great than later by $1^\circ/5$, nearly the lunar semidiameter. In History of science Society's *Isis* 93.1 p.72, immovable Gingerich tells us that this nonpareil farce shows Ptolemy's "great ingenuity".

E2 *Almajest* 9.10 finds Mercury's mean motion to trillion^{ths} of a degree/day, by a math proof **depending on orbital elements & 2 observations**. Strange that Ptolemy's prior *Canobic Inscription* Mercury orbit had some *different* elements, but concluded for **the same mean motion, down to a trillionth of a degree/day**. This, though the orbit-founding observations' 2 implicit 139 AD geocentric longitudes differed by 5° (*Amer.J.Physics* 55:236-237). (Actually, this mean motion was instead precisely computed from ratio $52200^\circ/16802^d 24'$, a period-relation provided several chapters earlier, at *Almajest* 9.3.)

E3 *Almajest* 5.12-13 computes with an uncited loan from Vitruvius 9.7.1: Ptolemy's Alexandria latitude $30^\circ 58'$, too low by $14'$, **an impossibly large error for a regular OUT-DOOR observer**, which his defenders keep improbably insisting (§C2) he was, even though $30^\circ 58'$ jars by $17'$ with the $31^\circ 1/4$ latitude assumed by the observer of *Almajest* 7.3's 18 "Ptolemy" star declinations (*DIO* 22 †2 §§E1-E3). His defense squad has no explanation for these two glaring contradictions, so the cult adds a cake-cherry atop the whole issue's risibility by quite ignoring it (www.dioi.org/jm04.pdf §C5[B]).

F Not So Funny: 1400^y of Damage to Astronomy — by Greatest's Astrologically-Typical Dishonesty

F1 In 1598, astronomer Tycho Brahe realized (see †9 following this paper) Ptolemy had "usurped" (*Tychonis Brahe Dani Opera Omnia* 15 vols Copenhagen 1913-1929, J.Dreyer, Ed., vol.3 p.337) the 1000-star catalog of Hipparchos. So, distrusting Ptolemy's false star-places, Tycho compared his stars' longitudes not to the erroneous Ptolemy-catalog fakes, but instead to Hipparchos' honest & reliable longitudes **reconstituted by subtracting Ptolemy's false $2^\circ 2/3$ precession from his false longitudes**. By this clever & valid procedure, Tycho at last [1] discovered accurate precession (within 2%), & so [2] was able to predict star positions to an accuracy of a few arcmin 100^y hence! — *2 epochal achievements directly due to his detecting Ptolemy's fakery*, astrological sham which betrayed the art of astronomy for 1400^y, fouling precession-research, seeding false theories, e.g., "trepidation". **NB: No historian-of-science criticizes Ptolemy for the long retardation of science caused by his catalog fraud**. (E.g., Swerdlow's usual apologetic prolixity consumes 52pp of *Perspective* [pp.151-202], hoping to smother Ptolemy's crookedness under enormous quotes from past astronomers which his fraud confused [no quotes from moderns he didn't!], at danger-points [pp.xiv & 158] carefully not quoting "usurped".) [Similarly, eminent historian-of-science D.Price (Yale Univ) called Ptolemy's occultism irrelevant to his value! Likewise, *Isis* 67:160 history of Rhine's fraudsoiled Duke Lab is **proudly** neutral on the ESP crock's reality.]

F2 Ptolemy stole the catalog by (www.dioi.org/jm02.pdf §§H-I) leaving its stars' latitudes undisturbed but adding $2^\circ 2/3$ onto Hipparchos' longitudes: i.e., $2^\circ 2/3$ centuries of $1^\circ/\text{cy}$ precession, Aristarchos' erroneous value (†11 §F2): too-low by $0^\circ.38/\text{cy}$. So multiplying $2^\circ 2/3$ times $-0^\circ.38/\text{cy}$ produces the mean error in Ptolemy's stars: $-1^\circ.1$, which (as noted at §B1) had to be the same as the Sun's fundamental error. Ignoring the coincidence that Ptolemy's stars are exactly where they'd be if stolen from Hipparchos, some argue for an innocent $-1^\circ.1$ slip of the zero-point of the armillary astrolabe used for observing the catalog, an alibi squashed by realization that the astrolabe turns on the equatorial axis (not the ecliptical), so a $-1^\circ.1$ longitudinal astrolabe error would cause other hitherto-unconsidered errors: $1/2$ -degree-amplitude error-waves in latitudes & north longitudes (www.dioi.org/jm04.pdf §B5), unmissably big effects not found in Ptolemy's catalog.

G *Geographia's* Only Eclipse: 500^y Old! & Incredibly Botched.

G1 To exceed §E's entertainment, Ptolemy created his most significant geographical disaster — unexplained previous to *DIO's* 2008 induction (fn 4) — regarding the famous 331 BC September 20 Arbela lunar eclipse, 11^d before the epochal October 1 Battle of Arbela. Weirdly enough, the Greatest **ASTRONOMER** of Antiquity's huge *Geographical Directory* uses but ONE eclipse: 500^y ago! Rightly noting (*GD* 1.4.2) that eclipses were the best way to gauge intercity longitudes, he then improbably claims (*idem*) there were few such data available, though *Almajest* 4.6 says that he saw 3 contemporary eclipses in just 3^y: 133-136 A.D.

G2 Ptolemy reported that the 331 BC September 20 eclipse's start was seen at 23^h at Arbela, 20^h at Carthage, so the cities were 3^h or 45° apart in longitude. These times spectacularly disagree with not only reality but *his own tables*: by 3^h for Arbela; 2^h, Carthage. A famous prior work, honest nonastronomer Pliny's *Natural History* 2.72.180, had correct times: 20^h & 18^h, resp. No investigator until 2008 (www.dioi.org/je03.pdf fn 45; *DIO* 22 ‡2 §G) realized that Ptolemy had **inadvertently⁴ attached Arbela's time to Carthage** — and had then fabricated his Arbela time from a pre-existing belief (based on his longitudinally-4/3-stretched map: www.dioi.org/jm01.pdf §E) that the Carthage-Arbela longitude gap was 3^h (actually 2^h 1/4), so 20^h + 3^h = 23^h, as pretended. **NB:** Hipparchos, Heron, Pliny, Kleomedes report all times of eclipses accurately: www.dioi.org/jm01.pdf. *The sole ancient bungler is: THE GREATEST ASTRONOMER OF ANTIQUITY.*

H Math, Science, Eyeballs, & Mr.Magoo.

H1 The Princetitude's Neugebauer (*op cit* p.191) called the *Almajest* "one of the greatest masterpieces of scientific analysis ever written" though Ptolemy was not a scientist, but a mathematician who faked science, to lend predictive credence (§D2) to the state's occultist astrological temple at Canopus. (See *Queen's Quarterly* 91:969-989, e.g., p.973.)

H2 Ptolemy's latitudes of Canopus and the Pharos lighthouse (actual latitudes 31° 19' N & 31° 13' N, resp) are listed (*Geographical Directory* 4.5.9&76) as the same, 31° 05' N, both evidently just sloppy-copied from Hipparchos' false estimate (www.dioi.org/j413.pdf fn 44) of Alexandria's latitude. Of course, anyone but C.Magoo Ptolemy could've — just by looking down the Mediterranean coast any night from his Canopus home — seen that the Pharos' flame (12 nmi distant) was 30° south of due west. This screwup inspired the question as to whether Ptolemy ever "allowed his eyeballs out at night" (*Vistas in Astronomy* 28:266). Ulm cathedral's statuette of Ptolemy (photo: O.Pedersen *Survey of the Almajest* 1974 p.2) depicts him with nearly-closed eyelids. Did the sculptor know something?

I History-of-Science's Unconcern at Its Own Dark Ages

You *might* suppose that the science establishment's decades-long impenetrably stubborn treatment of science HISTORY as little more than a field-promotion propaganda-tool — ever-manipulable for science-funding's convenience and (p.2&§A2 above) science-funders' rep-protection — would offend historians-of-science. If so, you're overlooking the intimidating influence of establishment-controlled grant-money, *on which major scholars' food&housing have (starting a 1/2-century ago) ever-more widely come to depend.*

The resulting Dark Ages of truth-in-astr-historical-scholarship (e.g., above, ‡7, & p.2) has become so totalitarian, few are left unafraid even to discuss it, much less devise remedy.

⁴ For how Greek-speaking Ptolemy's difficulty with Latin caused confusion of the two cities' eclipse-start times, see www.dioi.org/jm02.pdf §G3. In Pliny's report on eclipse-times for Arbela and for Sicily, by pure grammatical accident, Arbela's time (8 PM) appears in the text not close to Arbela but to Sicily, whose western portion was then part of the Carthaginian empire, & near Carthage's longitude. So while mis-plagiarizing Pliny's data without attribution, a sloppy copyist with weak Latin could easily mis-attach Arbela's time to Carthage. [Note: *GD* 4.5.76 variant Pharos at 31° 10' N.]