

DIO

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News Notes:

A. We are grateful for an appreciative review of *DIO* (done with deft British understatement, as also exemplified below at ‡10 §D9), which appeared in the 1993 Spring number (p.19) of the *Newsletter* of the British Society for the History of Mathematics¹ (founded 1971; first President G.J.Whitrow, current President John Fauvel): "A lively historical journal from the USA has come our way — indeed, two journals in one: *DIO* & *The Journal for Hysterical Astronomy* reassesses various historical views and reputations, largely in the field of history of astronomy, from a fearless perspective well aware of the operation of structures of power and influence in the groves of academe. . . . much recommended to any BSHM member bored with the blandness of the more prominent public journals, or open to the possibility of scholars being motivated by other considerations than the pursuit of objective truth."

B. *DIO* 2.1 (‡1 §E) posed our Puzzle for the Ages: "Greg tells me that his twin brother Chris was born 2 minutes after him. But, on Greg's 8th birthday, Chris had yet to celebrate a birthday. Question: what is Greg's age?" Answer: according to our Gregorian calendar (invented by Chris Clavius, S.J.), the only 8-year span in living memory containing no leap year was 1896-1904. Thus, Greg was born 1896/2/28 23:59, while Chris was born 1896/2/29 00:01. So, in 1992 April (*DIO* 2.1), Greg was 96 years old. The problem was immediately and correctly solved by Keith Pickering and AAS-HAD bibliographer Ruth Freitag, who are rewarded by being afflicted with permanent free *DIO* subscriptions.

C. [Note added 2002-2003&2013. I am sorry but not greatly surprised to report the continuation of odds-innocent History-of-Astronomy unappreciation of Aubrey Diller's magnificent sph-trig-based theory's glovelly-fit to the famous Hipparchos-Strabo klimata data; though, at least the competing, once-dominant Neugebauer theory is now dead (as creditably acknowledged by C.Wilson & A.Jones, happily rendering out-of-date at least some criticism within). Continuing **decade-after-decade** failure to honor Diller is particularly perverse, since all 3 post-Diller new evidences (2 unexpected extra klimata, plus DR's bringing-in standard 05' latitude-rounding) are in his favor, as noted in the following 3 pp analysis (slightly revised & augmented in 2003&2013). See especially *DIO*'s shocking Table 1 at p.56 here (uncited by *JHA* 2002), now even stronger than in 1994, from reinforcement (anachronistically added atop Table 1 here) by *yet another new perfectly-fitting klima*, Cinnamon — as well as the discovery (*DIO* 16 ‡3 eq.3) that the sole seemingly non-fit klima, Meroë, *actually fits after all: on-the-nose*. (Meroë not updated here but at *DIO* 16 [2009] ‡3 Tables 1&2.) Diller's grand discovery proved positively for the 1st time the true antiquity of sph trig (*and* the accuracy of real ancient scientists' adopted obliquity). *JHA* 33:15-19 [2002] has now (politely but irrationally) promoted a shaky alternate theory based on *one* (non-fitting!) datum related to *one* latitude, while discarding the *dozen*-latitude-fit Diller solution by suddenly attacking the very Strabo data all parties (incl. Neugebauer) had formerly agreed to.² We hope that the progressive spirit that has finally led to rejection of the Neugebauer theory will continue and so finally elevate Diller's brilliant & important discovery to its proper exalted place in the scientific history of antiquity.]

¹ Applications for membership (£12/year): J. Helen Gardner, 25 Hollow Croft Road, Willenhall, West Midlands, WV12 5YS, England. Copies of *Historia mathematica* vol.15 (1988): £25.

² An entirely needless denigration of Diller's discovery, since his & the *JHA*'s competing theories aren't mutually exclusive, given Hipparchos' variability. The *JHA* paper alleges conflicting non-klima Hipparchos data, ignoring: [a] his known penchant for improving numbers from time to time [*Almajest* 4.11, *DIO* 1.3 §§K-P], combined with [b] the fact that the klimata are from a *single coherent source*.

COMPETENCE HELD HOSTAGE

The History-of-Astronomy Journal Watch: #2 of a Series

[8 Yr-Old OutBrains Muffia. Nazi Germany OutFreespeeches It]

A. Diller's Discovery of Spherical Trig's Use in 2nd Century BC:

SIXTY YEARS of History-of-Astronomy Denial of Credit.

Archons Promote, Fund, & Honor the Suppressors.

How Long Will a Muffia Reign-of-Error Disgrace Academe?

The 1991/5 *Journal for the History of Astronomy* and 1991/9 *Isis* (Hist.sci Soc) carried promotion of the O.Neugebauer-Muffia's lovably preposterous theory (central to the Muffia cult) that high pre-Ptolemy Greek astronomy secretly depended¹ upon simple-minded Babylonian arithmetic schemes. Both articles (in their notes 38 and 7 [& n.22], resp)² recommend G.Toomer's 1988 collection of alleged evidences for the theory. (See our not entirely respectful comments, at *J.Hysterical Astron* 1.2 §E4, on this and the 2 other gossamer pseudo-proofs of Hipparchos' use of Babylonian astronomical techniques. See also *ibid* §E3.) The funniest of all these alleged "evidences" (repeatedly flogged by longtime BrownU Neugebauer-lapdog G.Toomer)³ is the claim by O.Neugebauer (Princeton Institute for Advanced Study) at p.305 of his 1975 *History of Ancient Mathematical Astronomy*, that Hipparchos' klimata (Strabo 2.5.34f: neatly illustrated at Neugebauer 1975 p.1313) were computed in arithmetical-Babylonian style, by a 3rd-order arithmetic scheme. (Which the Toomer 1978H p.210 rendition, in the *Dictionary of Scientific Biography* [!], misreported as 2nd-order — until DR's 1978/3/18 letter to the *DSB* corrected this at the proof stage.)

But the Muffia (Babylonian) arithmetic scheme⁴ explains only 6 of the 13 klimata, while the lovely spherical trig (Greek math) explanation, by classicist Aubrey Diller⁵ fits 12 of the 13 klimata, after improvement by DR's introduction of standard ancient rounding⁶ into the reconstruction. DR has also included the 19th klima; the fit to the Hipparchos-Strabo latitude is again perfect, a fine fruitfulness test: Diller didn't even know of that klima, so he couldn't have adjusted his theory to it. [Same for 12^h3/4 klima, which hugely clashes with Neugebauer.] Table 1 provides a Princetitute-Muffia vs Diller-DR comparison.

(My late friend Diller [Indiana University] was internationally respected as probably the most knowledgeable scholar ever, regarding ancient Greek geographical mss. He overmodestly protested that his klimata discovery was a fluke, since — as a philologist — he pleaded little knowledge of math. Which only shows just how brilliant he was. I used to tell Diller — emphasizing the high irony — how it's possible that, centuries hence, it is this atypical discovery that he may be more remembered for, than any other part of his lengthy lifetime of the most refined scholarship.)

A typically nasty & intolerant 1934 Neugebauer letter to Diller attacked Diller's paper as trash. [Which may explain why Diller had to publish his discovery outside the US Hist.sci

¹ Greek astronomy's only major suppressed source was the ever-politically-dangerous heliocentrist heresy: see *DIO* 1.1 ‡7, *DIO* 1.3 §§O4-O6, *DIO* 2.1 ‡3 fn 14.

² For even more recent promotion of these alleged evidences of Babylonian inspiration of great Hellenistic math astronomy, see John North's 100% politically-correct *Fontana History of Astronomy and Cosmology* 1994 (p.94). The Muffia is right about absolutely everything. And DR & *DIO* do not exist. Same as North at *JHA* 25:243; 1994.

³ See p.210 [nn.12&13] of *DictSciBiogr* 15:207 (1978) and p.356 of G.Toomer (p.353 in E.Leichty, M.Ellis, P.Gerardi 1988, Eds. *A Scientific Humanist: Studies in Memory of Abraham Sachs*, Philadelphia).

⁴ The Muffia arithmetic scheme is equivalent to the equation $\phi = 50[M^3 - 62M^2 + 1307M - 8454]$, where geographical latitude ϕ is in stades (rounded in Table 1 to 100 stade precision), at scale (fn 10) 700 stades/1°.

⁵ See Diller *Klio* 27.3:258 (1934) [pp.266f. Published in Leipzig, Germany.]

⁶ Without accounting for conventional ancient rounding (fn 10), the Diller scheme will fail at the [Phoenicia and] S.Little Britain klimata. But, even if one ignores rounding, the Diller theory still works for 10/13 of the data (vs. the Muffia theory's 6/13). [Its rms fit is 8 times better than the Muffia-Princetitute's; Diller-DR's is 10 times better.]

Klima	Longest Day <i>M</i>	Hipparchos-Strabo ϕ [Data]	PrincetonInst-Muffia ϕ [Babylonian]	A.Diller-DR ϕ [Greek]
Cinnamon	12 ^h 3/4	8800	10200	8800
Meroë	13 ^h	11800	12800	11600
Syene	13 ^h 1/2	16800	17600	16800
Lower Egypt	14 ^h	21400	21800	21400
Phoenicia	14 ^h 1/4	23400	23700	23400
Rhodos	14 ^h 1/2	25400	25500	25400
Hellespont	15 ^h	28800	28800	28800
Massalia	15 ^h 1/4	30300	30300	30300
Pontos	15 ^h 1/2	31700	31600	31700
Borysthenes	16 ^h	34100	34100	34100
Tanais	17 ^h	38000	38000	38000
S.Little Britain	18 ^h	40800	40800	40800
N.Little Britain	19 ^h	42800	42800	42800

Table 1: Comparison of Theories Explaining Hipparchos' Klimata ϕ

dictatorship, in the relative academic freedom of Nazi Germany! (See fn 5.)] Decades later, Neugebauer 1975 p.734 n.14 sneeringly branded Diller's result "absurd". Soon after, Rawlins 1982C fortuitously rediscovered⁷ Diller's solution — adding improvements (fnn 6&10) & independent confirmation (fn 9) — after over 4 decades of neglect & gross Muffia abuse. Neugebauer's wrath was incited by the very import of Diller's find, which overthrew one of the most critical of the Muffia sales-manual's alleged proofs of Babylonian influence on high Greek mathematical astronomy, as did DR-H.Thurston's undoing of 2 parallel 1991 papers. (See DIO 1.2 fn 73.) Add to these DR's DIO 1.1 ¶6 demonstration that the tropical year, on one of the most famous Babylonian astronomical cuneiform texts, is based on two wellknown Greek observations. All three discoveries gut the Muffia's above-cited — now crumbling⁸ — holiest-of-holy tenets (on which have been founded decades of Muffia cult articles, books, grants, conferences, promotions; and arrogance): the Princetitude-Muffia unnegotiable demand that pre-Ptolemy Greek astronomy (e.g., Hipparchos) depended upon simpleminded Babylonian astronomy.

Diller's proposed Hipparchos obliquity (the accurate value, 23° 2/3), central to Diller's 1934 theory, has since been independently verified by Rawlins 1982C and Nadal & Brunet 1984.⁹ (On Hipparchos' adopted obliquities, see DIO 4.1 ¶3 fn 18.)

Despite the striking preferability of Diller's solution¹⁰ (see Table 1 here), the Muffia

⁷ When a search of the literature turned up Diller's priority (& the Neugebauer 1975 condemnation), I swiftly contacted Diller (whom I did not then know), by phone (San Diego to Bloomington: 1979/11/26), to inform him of his vindication. One of my most cherished memories is Diller's expression of gratitude for, as he later put it (1980/1/24), having a long-suppressed theory "rescued [45 years later] by a phonecall from a stranger in San Diego."

⁸ See DR at DIO 1.2 fn 73, Dicks at DIO 4.1 ¶1, & H.Thurston *Early Astronomy* 1994 pp.123, 128.

⁹ *Publ. Astron. Soc. Pacific* 94:359 & *Archive Hist. Exact Sci.* 29:211 [p.212 n.17], respectively.

¹⁰ For the Diller-DR sph trig solution, we use the equation of *Almajest* 2.3: $\tan\phi = -\cos(M/2)/\tan\epsilon$, where ϕ = geographical latitude of computed klima, M = longest day (Summer Solstice), and ϵ = obliquity. In this case $\epsilon = 23^\circ 40'$. According to standard ancient math-geographical practice (Neugebauer 1975 p.935 n.1), we round each thus-computed ϕ to the nearest 5'. After converting ϕ to stades via the wellknown Hipparchos-Strabo ratio (700 stades/1° of latitude: Neugebauer 1975 p.305 n.27), we then round to customary (Neugebauer 1975 pp.334 & 1313) ancient precision for klimata, 100 stades. (By the way: where is it known that the Babylonians ever used Greek stades?) In the case of Phoenicia, the pre-rounded ϕ in stades is 23450, which could round to either 23500 stades or (the Hipparchos-Strabo value) 23400 stades. Naturally, the latter is listed in the Diller-DR column of Table 1.

cult persists in refusing to believe it. Indeed, since Neugebauer's haughty 1975 discard of Diller's find, the Muffia has not even cited it.¹¹ Typical. (See Dicks' DIO 4.1 ¶1 accounts of similar Muffia behavior; see also DIO 2.1 ¶3 §§C5¹² & "Black Affidavit" at DIO 1.3 ¶10.) And why shouldn't the Muffia ignore Diller's compelling solution? — since History-of-science [Hist.sci] & indeed *all of academe's handsome journals* themselves utterly ignore (and thus assent to) the Muffia's outrages. I.e., no History-of-Astronomy archon will say a word in public about the level of integrity displayed by such systematic noncitation.

The issues here are merely [a] the origin-epoch of spherical trig, and [b] the truth of the inter-relation of Greek astronomy [unexpectedly empirical: accurate obliquity] & Babylonian, among the most critical contended issues of scientific history. So why should Hist.sci archons care about open & equitable discussion of such trivia? Why should Hist.sci archons not keep right on punishing the suppressors with lucrative Ivy League professorships, gov't grants, and prestigious publication? Why should Hist.sci archons not continue controlling acceptable-to-them discourse through (what B.Rawlins calls)¹³ a bloody Reign of Error? — slandering & ostracizing heretics (DIO 1.1 ¶1 §§A8&C7 & ¶3 §§D2-D3) and hushing other potential dissenters by the perceived starvation-threat of grant-severance and denial of publication and conference-invitations (DIO 1.1 ¶1 fn 20 & DIO 1.2 fn 57).

The best part is that even while Ivy League kooks suppress at will the most patently-true cult-offending discoveries (such as Diller's) *for over half a century — and still counting*, academe¹⁴ (and its institutions & journals) blithely continues to advertise itself to the tax-paying public as the epitome of a rational and openminded free-marketplace of ideas. . . .

News Notes added 1997: [1] The above-cited DIO 1.1 ¶6 discovery (1991), that the yearlength on crucial Babylonian cuneiform tablet BM 55555 (c.100 BC) was based on Greek observations, is (see DIO 6 ¶1 fn 137) now so widely accepted outside the Muffia asylum, that BM 55555 has even been specially displayed at the British Museum explicitly due to DIO's finding. [2] Muffia peddlers of funny there's-a-Babylonian-in-the-woodpile explanations for pre-Ptolemy Greek astronomy keep non-citing (i.e., faking the nonexistence of) our stark Table 1 (opposite page): actual testing finds that an 8 year-old's brain takes under 15 timesecods to see that the Diller-DR theory (Greek) fits Hipparchos' klimata (c.130 BC) better than the PrincetonInst-Muffia theory (Babylonian). But, after 63 years of mental struggle, the Princetitude-Muffia klan still¹⁵ sees the reverse, while *privately slandering & exiling the non-blind as fools*. And the insecure History-of-science community (Princetituding its integrity, to maintain a vital longstanding umbilical cord to the Institute) stays paralytically silent on this insular cult's own public silence. Adapting an old joke to a modern one: What do you call a History-of-science archon with 2 brain cells? Pregnant.

¹¹ Praiseworthy exception: O.Pedersen was the party communicating Nadal & Brunet 1984 to *AHES*, for which Pedersen deserves explicit credit here. It should be added that Pedersen has wisely kept himself clear of the Muffia Babylon→Greece monomania — and is also as skeptical as DR regarding the field of archaeoastronomy. (R.Newton used to suggest that the main accomplishment of archaeoastronomy was the establishment of a word containing 4 consecutive vowels.)

¹² On 1994/5/8, at the Dibner Inst (MIT) Muffia conference, DR bluntly asked aloud if anyone else present wished to claim (as his own) the discoveries here cited, namely: the [period-relation] sources for the *Almajest* planet mean motions. [DR solved three planets. A.Jones later solved Mars&Jupiter.] When G.Toomer & O.Gingerich (both present) said nothing, DR then requested a swift end to Muffiosi's 14th suppression of the fact [1980/4/13 DR letter to OG: DIO 2.1 ¶3 §§C5-C6] that DR was discoverer. (Toomer 1984 App.C uses the 3 correct DR solutions & the revolutionary find that period-relations solve the motions, but won't say who 1st revealed all this.) Silence since.

¹³ In light of the lengthy Muffia Muff-Catalog at §A of "Casting Pearls Before Pyglets" (DIO 4.1 ¶4), Keith Pickering suggests alternatively: Rain-of-Error.

¹⁴ This is not for a moment to forget academe's invaluable productivity and credits (¶9 §K10). But these do not excuse decades of neglect & abuse of vital & compelling scholarship. E.g., Diller is deceased. General recognition of his discovery's import is inevitable — but it is now too late for him to reap the recognition he deserved for his klimata-obliquity discovery. (Diller's fiscal situation was needlessly uncertain for him in his last years.) See DIO 1.2 fn 90. But the other side of the coin is brighter: though archons may threaten and censor while they live, the future is infinite. So, to the end of history, Diller's brilliance will live on; and certain parties' haughty vileness, recorded in detail in DIO, is equally sure to achieve eventual eternal memory (¶9 fn 27). In contrast to knowledge (DIO 3 p.3), suppression — like the wealth & power that feed it — is not forever.

¹⁵ See News Notes (p.54) Note C.

‡6 Ptolemy's Backwardness

Further Evidence That Ptolemy Didn't Deduce His Parameters from Observations

by Hugh Thurston¹

A The Backwards Approach

A1 Imagine that you are a physics student finding the specific heat of lead. You desperately want high marks for your experiment. You can easily look up the specific heat and calculate what the thermometer in your experiment should read. If you record this calculated temperature instead of actually reading the thermometer, your result will be Excellent. That would be cheating, of course; but students have been known to do it. This type of fraud is called “working backwards from the answer.”

A2 Delambre 1819 (pp.lxvij-lxix) showed that Ptolemy did precisely this. In the *Syntaxis* (3.1), Ptolemy claimed that he calculated the length of the year from firsthand-observed equinox and solstice times and dates. These four “observations”, long known to be highly inaccurate (most are over 30 hours late! [see below: ‡7 §C3 & fn 14]) and long suspected to be fabricated, were in fact obtained by working backwards from the answer: plugging a previously-known (Hipparchus's) value for the length of the year into earlier equinox & solstice times yields precisely the times and dates that Ptolemy said he observed. Robert R. Newton rediscovered this and found several other examples of backwards working by Ptolemy. (See R.Newton 1977.)²

B Successive Approximation

B1 In Books 10 and 11 of the *Syntaxis*, Ptolemy used a well-known technique called “successive approximation”. We use this technique when we have a problem that we can't solve exactly. If we can, by one means or another, find an approximate solution, we use this approximation to find a closer approximation, then use this to find an even closer one, and so on.

¹ Hugh Thurston holds a PhD in mathematics from Cambridge University, England. He is currently professor emeritus of mathematics at the University of British Columbia, Vancouver, Canada. His original mathematical discoveries in ancient astronomy have appeared in *Griffith Observer*, *Archive for History of Exact Sciences*, & *Journal for the History of Astronomy*. Favorably reviewed by the Royal Society's Desmond King-Hele in *Nature* 370:339-340 (1994/8/4), Thurston's successful 1994 book, *Early Astronomy* (published thanks heavily to the interest and discrimination of Thos. von Foerster, Springer-Verlag's Math-Physics Senior Editor), is the broadest careful investigation of pre-modern astronomy carried out by a professional mathematician in over a century (since Delambre's early 19th century work), covering not only Greek & Babylonian astronomy but: Chinese, Indian, Arabic, Mayan, & Renaissance. Among others.

² Note added by DR: See also Rawlins 1987 p.236 item 5 for proof (by a quite independent approach) that Ptolemy's mean motion of Mercury existed before the data he adduces to prove it. (For van der Waerden's comment on this simple demonstration, see *DIO 1.1* ‡6 fn 37. See, too, *DIO 1.2* fnn 16&166, and *DIO 2.1* ‡3 §C15.)

B2 A wonderful successive-approximation scheme for finding square roots appears to go back to Archimedes. (See Heath 1921 2:325.) The method is nicely explained in the final appendix to R.Newton's final book (R.Newton 1985 p.255):

“Suppose we want the square root of a number N . Let n be any approximation to \sqrt{N} . Then $[n + (N/n)]/2$ is a better approximation. That is, we divide any approximation n into N and take the average of n and the quotient. The average is a better approximation. In fact, if n and N/n agree to k significant figures, the average is accurate to $2k$ significant figures. Thus the process converges rapidly.”

B3 (The widely-believed convergence rule here stated is over-simplified. The actual rule is: if the error in n is e , then the error³ in $[n + (N/n)]/2$ is $e^2/2n$.)

B4 If we use this method to compute the square root of 2, starting with 1 1/2 for the first approximation, we will get the successive approximations:

$$3/2, 17/12, 577/408$$

(In just 3 iterations, we have a value good to 1.5 parts in a million. Which explains why — though “successive approximation” sounds fuzzy — the technique is so powerfully attractive.)

B5 Note that the approximations get less and less round as the sequence continues. This phenomenon is characteristic of successive approximation.

C Ptolemy's Orbital Successive Approximations

C1 Ptolemy used successive approximation to find the eccentricities of the outer planets. He started with purported observations of three oppositions to the mean Sun. (You'll find illustrations, if you want them, in Thurston 1994E pp.166-167, Figs.6.30-6.32.) At such an opposition the planet, the centre C of its epicycle, and the Earth T are in one straight line. (See *ibid* Fig.6.30.) Therefore, if C_1 , C_2 , & C_3 are the three opposition-positions of C , and E is the equant-point, then (since motion is uniform around E in the equant model Ptolemy adopted), the time-intervals between the oppositions give the angles C_1EC_2 and C_2EC_3 . (See *ibid* Fig.6.31.) The observed longitudes of the planet give the angles C_1TC_2 and C_2TC_3 . (See *ibid* Fig.6.32.)

C2 Problem: to calculate the distance ET . Of course, we can't find absolute distances, only ratios. But Ptolemy took the radius of the circle on which C moves to be 60, enabling him to give a value to ET . The ratio of ET to this radius is sometimes called the eccentricity.⁴

C3 Solution: let Z_1 , Z_2 , & Z_3 be the points where the lines EC_1 , EC_2 , & EC_3 intersect another circle of radius 60 (the dashed circle in Fig.6.32 of *ibid*), whose center is E (the equant point). If Ptolemy knew the angles Z_1TZ_2 , Z_2TZ_3 , Z_1EZ_2 , & Z_2EZ_3 , then he could, by a long but straightforward piece of Euclid-plus-chord-table geometry, find ET . (See *Syntaxis* 10.7 or Thurston 1994E App.5 for details. See also Hill 1900 and Rawlins 1987 n.25.) He did know Z_1EZ_2 & Z_2EZ_3 : they are equal to C_1EC_2 , & C_2EC_3 . But he didn't know Z_1TZ_2 & Z_2TZ_3 . However, these two angles are not much different from C_1TC_2 & C_2TC_3 , which for each outer planet are allegedly (§C1) known from opposition observations — e.g., for Mars (*Syntaxis* 10.7): $67^\circ 50'$ & $93^\circ 44'$.

C4 So he calculated what ET would be if Z_1TZ_2 & Z_2TZ_3 were $67^\circ 50'$ & $93^\circ 44'$, and he got $ET = 13;7$. (This is notational shorthand for $13 + 7/60$, which, for a circle of radius 60, constitutes an eccentricity = $[13 + 7/60]/60 = 0.219$.) At the same time, he calculated the direction of the apogee. These two basic parameters aren't exact because his input data aren't exact. But they are close, because the data are close.

³ Note that this is not an upper limit on the error but rather an exact expression for it.

⁴ This eccentricity should not be confused with the eccentricity of an ellipse. If a Greek orbit is the best approximation to a Keplerian ellipse's longitudinal motion, then the Greek eccentricity will be twice the eccentricity of the elliptical orbit. E.g., for Mars: Greek eccentricity = 1/5; elliptic eccentricity = 1/10.

C5 Now knowing the basic parameters of this 1st-approximation orbit, he knew the motion of *C* (on it) completely and could calculate anything he liked in this orbit, including Z_1TZ_2 & Z_2TZ_3 . The results won't be exact, because the parameters aren't exact; but they'll be better than his first crude approximation of (§C3) setting them equal to C_1TC_2 & C_2TC_3 .

C6 With these better values for Z_1TZ_2 & Z_2TZ_3 , he repeated the §C3 calculation and now got a better value for eccentricity *ET*. This in turn led him to better values for Z_1TZ_2 & Z_2TZ_3 , and these gave him a yet better value for *ET*. Here he stopped.

C7 He used the same method for Jupiter and Saturn, except that (because their orbits' eccentricities are much lower than Mars') he needed to compute only two approximation-iterations instead of three.

D Ptolemy's Roundings: in Reverse

D1 As the steps progress, do Ptolemy's approximations get less round, as they should? They do not. The values for *ET* are (*Syntaxis* 10.7, 11.1, 11.5, respectively):

Mars 13 7/60, 11 5/6, 12. Jupiter 5 23/60, 5 1/2. Saturn 7 2/15, 6 5/6.

D2 No-one who has done much successive approximation will find these results plausible. They are what would be expected in working backwards from the neatly rounded answers.

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‡7 Unpublished Letters

A Mind-Size

A1 *DIO* 4.1 ‡1 concluded with the promise that *DIO* 4.2 would detail *Journal for the History of Astronomy's* brickwall rejection of the important paper, "Pan-Babylonianism Redivivus?", by classicist David Dicks, an internationally known scholar of ancient astronomy. (This paper, unchanged, was to become the lead paper of *DIO* 4.1.) We begin with the letter that accompanied Dicks' submission of the paper to the *JHA*:

To: Editor, *Journal for the History of Astronomy* 1994/1/5

From: Prof. David R. Dicks [London University, ret.]

A2 I submit the attached paper for publication in your journal. I have little expectation that you will accept it, as it is somewhat critical of many names in the establishment of the history of science; but I thought I had better go through the motions, anyway, to satisfy my conscience.

A3 One thing I would request is that you do not send it across the Atlantic — there has been far too much unauthorised and unacknowledged pillaging of my work over there already. If you do not like it, let me know, and simply destroy it.

A4 I look forward to hearing from you.

To: Dr. Dicks

1994/1/13

From: Michael Hoskin

A5 . . . My initial reaction on opening your letter on my return from abroad was one of pleasure at the prospect of a paper by yourself. Sadly, instead of the presentation of new research of the quality we have come to expect from you, it is more in the form of a succession of attacks on colleagues, many of them couched in language that is overtly offensive and quite unacceptable in a 'learned journal'. I am very sorry that you are not able to look back on your distinguished career with pleasure in a job well done — and to add further contributions to it. But if your complaints are justified (as may well be the case) then a more acceptable way of expressing them needs to be found. Sorry! . . .

A6 DR comment: the it's-gotta-be-new-research gambit is such a threadworn Hoskin dodge that the Editor-for-Life no longer even bothers to check whether it applies. Dicks' paper in fact brings several novel evidences and observations to bear upon the key question of the primacy of Babylonian astronomy vs. Greek. As to whether the paper's language is scholarly, the reader is referred to the high opinion of no less than Curtis Wilson (Hoskin's most distinguished colleague on the board of the *General History of Astronomy*). Dicks' reply (§A7) is a gem. (How often we know these truths. But, how seldom they are said.) The key point is precisely what Dicks points out: why is the *JHA* so concerned with style (*DIO* 1.2 §B2) and with keeping certain political factions safe from criticism, that it willfully¹ ignores the sole issue that matters: does the research contribute to knowledge?

To: The Editor (M. A. Hoskin)

1994/1/14

From: David Dicks

¹ Editor-for-Life at §A5: "as may well be the case".

A7 Congratulations! Exactly as I had expected — a judicious blend of insincere flattery and unctuous high-mindedness! Of course it would not do to publish anything critical of the establishment on which you depend for referees; I quite understand — never mind any considerations of accurate scholarship or historical truth. . . .

To: *DIO* 1994/3/14

From: David Dicks

A8 I presume you've seen the latest bunkum in *JHA* [25.1:39-55; 1994/2] — 'Neolithic Lunar Maps'! I ask you! Hoskin must be out of his tiny mind. It's quite extraordinary what passes for "new research of . . . quality" (to quote from his [§A5] letter to me) these days.

B ISIS in Crisis: Lying Lower & Lower

B1 When the Neugebauer-Muffia decided to hold a conference 1994/5/6-8 (at M.I.T.'s Dibner Institute), Muffiosi as usual agreed not to inform DR of the event. DR phoned *Isis* (History-of-science-Society [HsS]) Editor Margaret Rossiter on 1994/4/22 to apprise her of this situation and to ask why the *DIO*s so far sent to *Isis* as publishable matter had not even been acknowledged. She replied that she didn't understand them and that she had thrown all of them away. She suggested writing a letter-for-publication for *Isis*, which I sent (4/26) and which she of course did not publish. In this 1994/4/26 letter to HsS, DR also took the opportunity to ask a few questions about the scholarship & behavior of the Muffia, and to suggest a debate (at the M.I.T. conference) of the issues in contention between us:

To: History of science Society (*Isis*) NOT CONFIDENTIAL 1994/4/26
From: *DIO*, Box 19935, Baltimore, MD 21211-0935(phone: 410-889-1414)

B2 As acknowledged in your Society's 1991/7 *Newsletter* (p.35), many of you have been regularly receiving the Dennis Rawlins (DR) journals, *DIO* & *The Journal for Hysterical Astronomy*. You should know, therefore, that these DR journals have pointed out at least two discreditable incidents involving: [a] *Isis*, and [b] the snobsters known to *DIO* readers as the "Muffia", that amusingly inept and lordly cult of scholars that is the legacy of the late O.Neugebauer (BrownU & Princeton [Institute for Advanced Study]). (As we'll see below, it looks like *DIO* reportage of a 3rd such episode is in the offing.) [Note added 1994/10: HsS can't say it wasn't warned.]

B3 Not greatly to anyone's surprise, *Isis*-persons have done nothing whatever about these matters. Except, of course, to try suppressing *DIO*! (See under R.Kargon, below [§B9 & §B19].)

B4 And the Muffia's reaction to *DIO*'s revelations of, e.g., its repeated highschool-math blunders and its Nobel-level discoveries of the "Winter Equinox" (S.Pathak 1994/2/27 query: is this a new rock band?) and the Autumn Solstice (see sources cited in "Black Affidavit" [*DIO* 1.3 ¶10], copy enclosed) has been its standard courageous strategy: run away and hide. (See *DIO* 2.3 ¶8 §C.) Well, why *shouldn't* the Muffia keep hiding? Muffiosi have learned, from decades of experience, that no amount of its mismatch or misbehavior will draw the slightest public censure from the History of science Society. To a cult that places so little value on such trifles as mere scholarly integrity (a cult that is indeed dedicated to unremitting exaltation of C.Ptolemy, the most thoroughly exposed pre-Muffia plagiarist in the history of astronomy), the HsS's guaranteed inaction is a handsomely engraved invitation for that cult to keep right on behaving exactly as it pleases. The two above-cited incidents:

1. The MacArthur-Fellowship paper of Noel C. Swerdlow (*J.Hist.Astr.* 1989) published 2 equations nicely explaining certain rigged Ptolemy "observations" of Venus. Curiously, these equations had earlier been discovered by DR and sent to *Isis* (for publication) in 1983. *Isis*' repellent reception of the equations (despite publication-approval by *Isis*' own eminent referees) is described at *DIO* 1.2 §I13 (pp.134-5). (See also *Isis* suppression cited at *DIO* 1.1 ¶6 fn 4.)

2. In the *J.Hist.Astron.*'s 1989/5 *lead* paper, the Muffia's Alexander Jones [argues] the impossibility of fitting eccentric (Greek-trig) orbits to 3 famous Hipparchan solar-position trios (data found at *Almajest* 4.11 and 5.3&5). And the *lead* paper of *Isis*' 1991/9 issue (1st UChicago number) is [a follow-up orbital paper], founded upon the earlier *JHA* analysis. Though [its] math was vetted by an imposing flock of Muffiosi (most of whom will be at the upcoming Dibner meeting: all 4 scholars cited at *JHA* 22 p.122), the papers are a credibility-mass-suicide so broad that [it must be shared by the whole senior Muffia-*JHA* combine]. Facts:

[a] Even before [the] papers appeared, DR had already published 1 of these allegedly-Impossible orbits (*DIO* 1.1 ¶6, 1991/1/14; elements reprinted at *DIO* 1.2 §G10). The other 2 Impossible orbits were published at *DIO* 1.3 §K9 & §M4 (& fn 162). (See also *DIO* 2.3 ¶8 fn 18, transmitted to Muffiosi via Johns Hopkins U: written receipt 1992/10/30.) That the three DR solutions indeed fit Hipparchos' solar data, can be verified by highschool math.

[b] The [Muffia] "proof" of impossibility for the 3rd Hipparchan trio is based upon [two elementary] math errors (*DIO* 1.2 §G9). Note: [its] equation ($67^d/2/3 = 67^o/2/3$ of mean solar motion) requires a 360^d year. Muffia-cult slanders, *still-unretracted and still-Hist.sci-uncriticized* (partial compilation at *DIO* 1.1 ¶1 §C7), include applying the label "Velikovskian" to Ptolemy-skeptics Rob't Newton (the late eminent Johns Hopkins U physicist) and DR; thus, I will note that the only previous scholar who promoted a 360^d year was Dr. I. Velikovskiy. (See Dr. V's *Worlds in Collision* Pt.1 Chap.5 & Pt.2 Chap.8: pp.124, 330f.) Since checking [Muffia] mis-math has evidently been too much for the numerous *Isis* people who have received *DIO* 1.2, the truth of all of *DIO*'s charges of [poor math] in this prominent Muffia-*JHA-Isis* [mess] has instead been confirmed in detail by Cantab mathematician Prof. Hugh Thurston, Univ of British Columbia: Math Dep't phone# 604-822-2666, home phone# 604-531-8716.

B5 Jones² was seen in possession of *DIO* 1.1 (containing one of the Impossible solutions) at the Graz ancient astronomy conference in 1991/9. *DIO* 1.2-3 (& 2.1) was mailed directly to Jones on 1993/12/31. His [Muffia-advice-dictated] reply? No reply. (Similar to *DIO* 1.1 ¶3 fn 7.)

B6 In the 1991/5 *JHA*, its Editor-for-Life, Michael Hoskin (whose amusing scholarship is examined at *DIO* 1.2 fn 60), published all of this false Muffia math (and [the] discovery of the Winter Equinox [!], *JHA* 1991/5 p.119) after the usual intensive *JHA* refereeing. The Editor-for-Life has refused³ even to receive *DIO* 1.2-3 (& 2.1), which corrected *JHA*'s [orbital] mess: *Hoskin simply sent back here, unopened, the envelope containing these*

² Jones is now acknowledging privately at least some of these errors. But he has publicly withdrawn nothing. And, if he ever does, he will likely avoid citing *DIO*, where these mistakes & the 3 allegedly Impossible orbits were 1st published. [Note added 2005: Happily, DR's prediction proved far too pessimistic. See *DIO* 6 ¶3 §A2.]

³ Problem: ever since DR pointed out the errors undercutting an entire 1982 *JHA* paper (belatedly retracted in the 1984/6 *JHA*), the *JHA*'s esteemed Editor-for-Life has (1983/3/21: see *DIO* 1.2 §B) refused correspondence with DR, thus *coincidentally permitting the JHA to evade its obligation to acknowledge its errors*. (See enclosed catalog of muffs: [*DIO* 4.1 ¶4 §A]. No less than 17 of them have graced the *JHA*.)

DIO issues. [See *DIO 4.1: Competence Held Hostage* #1.] And all relevant academic institutions permit such behavior to continue, year after year, without the slightest criticism.

B7 *Isis* Editor Margaret Rossiter has thrown the same *DIO* copies (& all others) into her wastebasket, this despite the *DIO* Publ. Statement (inside back cover) explaining that each issue constitutes a submission-for-publication (to such journals as *JHA* & *Isis*, so long as they continue refusing to cite *DIO*). Rossiter claims (1994/4/22) she couldn't understand the matters at issue. Comments: [a] The bold-print subtitle of the article "Muffia Orbitalium" (comprising most of *DIO 1.2-3*) explicitly refers to *Isis*' involvement. (As does *DIO 2.1*'s inside-cover.) . . . [b] The central *JHA-Isis* errors which *DIO 1.2* (§G9) exposes are . . . arithmetic. [Note added 2005: In 2002-3, *DIO* was delighted to see Margaret Rossiter courageously spearheading *Isis*' liberation from Muffia rigidity. See *Isis 93*:500.]

B8 But *Isis*' leaders are not alone in suppressing public [awareness] of the *JHA-Isis* [orbital foulup].

B9 When the Johns Hopkins Univ Hist.sci Dep't received (written receipt: 1992/10/30) news of [*JHA*'s orbital mess], the Dep't's R.Kargon (late of *Isis*' Board) secretly induced JHU's library to cancel its *DIO* subscription. (See *DIO 2.1* p.2.)

B10 The Muffia has sworn on a stack of *Almajests* that it will never cite *DIO*. And, when H.Thurston was attempting to publish DR's discovery of the below-cited [§B11] Greek→Babylonian link, a leading Muffiosi exclamationarily attempted to dissuade Thurston from citing DR at all. For 25 yrs, this sort of censorship has been the *sole* effective Muffia tactic against the Ptolemy-skeptic dissenters it loathes: R.Newton & DR. (Muffiosi's demonstrated preference for running away and hiding is perfectly understandable, given their uniformly-disastrous record when attempting direct scholarly reply. See, e.g., *DIO 1.1* ¶5 §A, fn 15, fn 20, *DIO 1.3* fn 288, *DIO 2.1* ¶4 fn 65, *DIO 2.3* ¶3 fn 31 & §C31.)

B11 And now, Muffia capo Noel C. Swerdlow is organizing for MIT (!) a Dibner Institute ancient astronomy conference 1994/5/6-8, crammed (naturally) with his Muffia pals. But NCS neither invited DR nor even informed him of the event's occurrence. This, even though the main theme of the Dibner conference is Babylonian & Greek astronomy — and DR is discoverer of one of the major links between the two (intimately related to the 3rd Hipparchan solar orbit cited above): the first firm evidence of Babylonian use of Greek astronomical information. (See *DIO 1.1* ¶6 §A.) This discovery is praised by the Dibner conference's K.Moesgaard (*DIO 2.1* ¶2 §D) and by no less than B. van der Waerden (*DIO 1.1* ¶6 fn 4). Cited by Dibner conference's C.Walker 1993 (Graz 1991/9 conference proceedings) & the Amer.Astr.Soc.'s HAD Bibliography. (Uncited by *Isis*' rigorously *DIO*-frei *Current Bibliography*, which instead lists both [orbital papers]!) The DR Greek→Babylonian discovery is regarded by Hugh Thurston's *Early Astronomy* (Springer 1994 pp.123&128) as the main evidence suggesting that Muffiosi may have things reversed, when promoting their endearingly whacky central fundamentalist tenet: that lowgrade Babylonian astronomical math inspired high pre-Ptolemy Greek math astronomy. See *DIO 1.1* ¶6 §B9-§B13 (pp.53-54). [Also here at ¶9 §K9.]

B12 The head of the Dibner Institute, Jed Buchwald, is currently on *Isis*' Council. (I am told that he was formerly at the Univ Toronto's Institute for the History and Philosophy of Science and Technology — [whence] the [orbital] papers were issued!) Buchwald has refused to accept or return three recent

DR phonecalls.⁴

B13 Is the Hist.sci community proud of the foregoing record? — not to mention its failure to arrange a debate of the closely-related 25-yr Ptolemy Controversy? Does it wish to continue indefinitely condoning the censorial behavior of the Muffia, the *JHA*, & *Isis*? (I am hoping that the Dibner Inst will not add its reputation to this list.)

B14 For years, Muffiosi have slandered DR behind-the-back, instead of engaging in face-to-face open debate, as DR has repeatedly urged (*American Journal of Physics* 1987/3 p.236, *DIO passim*, & 1994/4/20 to Dibner Institute). The upcoming Dibner Inst gathering represents a convenient opportunity finally to arrange such an encounter, since Muffiosi Swerdlow, Toomer, B.Goldstein, Aaboe, Jones, Pedersen, Britton, Graßhoff, etc. will all be on hand. [In the event, Pedersen did not appear.]

B15 I also request the opportunity to cross-examine these scholars, regarding their logic, slanders, & the more sensational among the *dozens* of hilarious Muffia scholarly-pratfalls which *DIO&JHA* have pointed out over the last few years. (The Muffia, with customary integrity, hasn't publicly acknowledged any of them.) See enclosed 45-item partial catalog:⁵ [*DIO 4.1* ¶4 §A]. See also "Black Affidavit" (*DIO 1.3* ¶10, pp.176-177), which accents some of the funniest.

B16 More importantly, I further request that (as thoroughly as possible in the limited time before the Dibner meeting) this DR catalog BE REFEREED BY COMPETENT SCHOLARS — preferably by real scientists, not the same Hist.sci see-no-evils who've allowed the Ptolemy Controversy to fester for a quarter century. (Many of the muffs listed are so obvious that they will require but minutes to check out. Hist.sci archons should have done this a *long* time ago.)

B17 At the proposed debate, Muffiosi will greatly outnumber skeptics (see *DIO 2.1* ¶2 §H20). Well, that's OK by DR. Question: just how high must the odds be, before Muffia braves are willing to openly debate those they have never hesitated to slander in private?

B18 The following 45 (yes *forty-five*) errors by Muffiosi (& Muffia-circle scholars & forums) have been pointed out serially since *DIO*'s inception, over 3 years ago. (Many are displayed in the satirelet, "Black Affidavit": *DIO 1.3* ¶10.) [Note added by DR: The 45-item catalog of Muffia muffs was attached to this 4/26 letter to *Isis*; but it will not be repeated here, since it was printed in its entirety at *DIO 4.1* ¶4 ("Casting Pearls Before Pyglets") §A. I should add that this 45-item collection is not just an exercise in superficial carping. Most of the items are substantial errors — indeed, in many cases, the error guts the entire thesis of the argument or paper it appeared in.] From those responsible for creating and/or promoting this impressively Reputable-looking collection of quasi-kwank⁶ literature, there has been: no response at all. Except the above-noted attempted suppression of *DIO* itself.

⁴ 1994/4/15, 4/17, & 4/20. My concerns about the upcoming Dibner conference were very briefly indicated (4/20) to the Dibner sec'y and my phone number (410-889-1414) was left with her on all 3 occasions. (There is always an answering machine on here. I.e., Buchwald did not phone back while I was out.)

⁵ It will save time if the Muffia will, previous to the conference, simply cite those DR-listed errors which it does not agree to. This substantial catalog of Muffia muffs is enclosed here because the very same Muffia has for years baselessly claimed that the work of their nemeses R.Newton & DR are riddled with scores of serious mistakes, even though Muffiosi have yet to meet challenges to produce the alleged lengthy list of alleged RN-DR errors — a list which continues to exhibit a Joe-McCarthy-like elusiveness: *DIO 1.3* fn 252. Having themselves noisily & haughtily raised the issue of proneness to errors, Muffiosi have only published a very occasional mote (to support this broad-brush smear-falsehood against others' work), & showing no interest in tending to the beams in their own eyes.

⁶ See, e.g., *DIO 1.1* ¶5 fn 12; and *DIO 1.2-3* §E4, §G3, & §M7.

B19 The day before embarking for M.I.T., DR ran into sometime *Isis* person and HsS biggie Robert Kargon on the Johns Hopkins campus (Ames Hall→Gilman Hall, 1994/5/4, 13:10 EDT). I asked him straight out why he had, behind my back, gotten my journal *DIO* removed from the JHU Library. His sneering reply: “You call that a journal? No refereeing . . .” (In light of *Isis*’ [orbital] affair, ironic comment here would be too easy.) So I replied that he should go right ahead and referee it. Kargon: “That’s really how I’m going to spend my time.” (Catch-22, anyone?) As Kargon tried fleeing, as fast as his feet could blur, DR commented (to his back) on the arrogance, and asked why it was impossible to correct such *JHA-Isis* errors as $128 - 65 = 65$ (see *DIO* 1.2 §G9 and *DIO* 4.1 ¶4 & *Competence Held Hostage* #1), simply because he didn’t like the journal announcing the errors. Kargon spoke without the slightest (deliberate) humor & with naked contempt for *DIO*’s “screed”; as for his action at the Library, he explained (implying no censorship intended) that JHU’s library can only hold so many journals. (I wasn’t previously aware of Kargon’s librarian credentials, nor of his concern over library space problems.)

B20 I arrived at M.I.T. late on 5/5, and appeared next morning at the conference, to the obvious joy of Muffiosi. I there handed out the following letter to the participants & the audience.⁷ (Throughout the 3 days, the former usually outnumbered the latter.)

To: Attenders of 1994/5/6-8 Dibner Institute Conference,
 “Ancient Astronomy & Celestial Divination” 1994/5/6
 From: Dennis Rawlins, *DIO* & *The Journal for Hysterical Astronomy*
 Box 19935, Baltimore, MD 21211-0935 (phone: 410-889-1414)

B21 Many of you attending this conference are probably unaware that it was organized by a cult, which my journal, *DIO*, has entitled “the Muffia”: a narrow, scientifically inept (though occasionally useful & productive) clique that has for decades pretended to total proprietorship of the ancient astronomy field. (Muffia capos participating in this conference include: N.Swerdlow, . . . B.Goldstein, A.Jones, A.Aaboe.)

B22 Muffiosi’s standard tactics towards heterodoxy: [1] Systematically non-cite or slander work that dissents from the Muffia’s own exceedingly peculiar interpretations of Babylonian & Greek astronomy. [2] Flee every one of the debate-challenges issued for years by DR. (E.g., *American Journal of Physics* 1987/3 & *History of Science Society Newsletter* 1991/7. By phone to Dibner Institute 1994/4/20. By letter to Hist.sciSoc 1994/4/26, with attached 45-item partial catalog of Muffia scholarly muffs, both serious & humorous — frequently both.)

B23 I have come to this conference — emphatically *uninvited* — to provide (insofar as that may be possible from the floor) the shunned other-sides of the two central ancient astronomy controversies: [A] the interrelation of Babylonian & Greek astronomy, and [B] the honesty of the honest Muffia’s hero, C.Ptolemy.

[A] The Muffia follows its late don, Otto Neugebauer, in contending that high Greek math astronomy was (before Ptolemy) heavily dependent upon crude indoor Seleukid-era Babylonian astrology (which lacked trigonometric orbits — or even a latitude for Babylon!), a notion which *J.Hyster.Astron.* 1.2 (§G3) compares to “trading Chartres for a shack.”

[B] Muffiosi revere & laud the Serapic-priest-astrologer Claudius Ptolemy as “the Greatest Astronomer of Antiquity”, though Ptolemy has been known to knowledgeable astronomers for centuries (since Tycho, 1598) as a massive plagiarist and indoor faker of alleged “observations”. Two simple examples. [i] Ptolemy’s grossly erroneous solar “observations” agree 50 times better

with Hipparchos’ indoor solar tables than with the actual outdoor position of the Sun. See, e.g., D. Rawlins *American Journal of Physics* 55:235 (1987) p.236. [ii] Ptolemy’s fabrications were so clumsy that he inadvertently assigned discrepant dates to the same celestial event (the 136 AD evening greatest elongation of Venus): 136/12/25 (*Almajest* 10.1) & 136/11/18 (*Almajest* 10.2). DR (*idem*): “That is, Ptolemy in the *Alm* states that he *observed* first-hand the *same celestial event* on two different occasions *thirty-seven days apart* — a blunder unique in astronomical annals, and the coup-de-bloop for the notion that Ptolemy was a legitimate scientist.”

B24 In faithful imitation of the unfalsifiability that characterizes better-known fundamentalists, the Muffia claims that such revelations have not altered in the slightest [a] its high evaluation of Ptolemy, or [b] its precisely-null evaluation of modern skeptics. (Curious contrast: *DIO* recognizes some merit here&there in Muffia output and has therefore praised it on numerous occasions. But, as with one voice, Muffiosi profess to find *exactly* zero value in *all* DR output.) The cultishly-cohesive Muffia is actually proud of that unblemished record.

B25 History of ancient astronomy is too wonderful a field to be left exclusively to persons so lamentably lacking in the very skills and attitudes which are the hallmarks of science.

B26 If you are interested in open & evidence-responsive discussion, technical competence, unexpected new revelations of the roots of high ancient astronomy, plus occasional supplementary-satire shirt-unstuffings, then you are urged to get on the mailing list for *DIO* & *The Journal for Hysterical Astronomy*.

B27 A few sample *DIO-JHA* copies will be available from me (until the supply is exhausted), either at the conference or at my room [# 1907] in the Cambridge Center Marriott (617-494-6600)

B28 Attached to this 5/6 handout were photocopies of: [a] the 45-item list, [b] *DIO*’s 4/26 letter to *Isis*, & [c] “Black Affidavit” (*DIO* 1.3 ¶10).

B29 As pointed out at *DIO* 4.1 fn 2, “HsS’s standard submit-a-formal-ms reply (contra *DIO* 1.2fn 165), to *DIO*’s 4/26 letter [text above at §B2-§B17], evaded the debate-challenge (by delay) & *no-commented* the 45-item list, despite emphatic 4/26 urging that the list be ‘REFEREED BY COMPETENT SCHOLARS — preferably by real scientists’ . . .” (See §B16.) We will reprint that HsS letter (1994/5/16) below (§B31-§B33), after a few further comments here: [a] The HsS 5/16 letter is in just the same tradition — and is about as sincere — as the Hoskin letter quoted above at §A5. [b] My encounters with numerous tooth-grinding Hist.sci people (§B19 & fn 11) did not encourage me to believe that *Isis* was genuinely anxious to publish *DIO*’s accounts of its hilarious attempts at technically competent astronomical scholarship.

B30 Particularly disturbing was the fact that the HsS letter begins with the blatantly false claim (§B31) that HsS & *Isis* were unaware that the *DIO*’s sent them were submissions to *Isis*. (Resorting to deception is frequently attractive to a certain type, since it can provide short-term relief from an irritating critic. I will not here re-discuss the deeper, longterm damage one thereby suicidally cooperates in permitting an imagined enemy to inflict: see *DIO* 1.3 §P3.) Given the HsS’ concern at the threat it perceives in *DIO*, it is incredible on the face of it that not a single one of numerous high HsS recipients of *DIO* ever noticed this. (And the point is, in any case, irrelevant to the necessity of retracting errors one is informed of in detail: especially key errors, which have appeared prominently in one’s own journal.) Moreover, on 1993/12/31, DR directly mailed copies of *DIO* 1.2-3 to both of those top HsS and *Isis* officials who were responsible for the orbital disaster (lead paper of *Isis* 1991/9): Stephen Brush (1991 HsS President) and Ronald Numbers (1991

⁷ [Note added 1994/10: The audience, from time to time, included 0 Gingerich, G.Toomer, D.Pingree, G.Saliba, and my former Kirkland House (Harvard) tutor, physicist & historian Erwin Hiebert.]

Isis Editor), with LARGE-LETTERED handwritten notes⁸ on both copies, at the Table of Contents (p.94 = inside front cover), reading: “SEE p.140” (S.Brush) and “SEE pp.123, 140” (R.Numbers). At p.140, one finds (§J7) the plain *DIO* declaration: “See inside back-cover *DIO* [publisher’s] statement: this *DIO* analysis is hereby submitted to *Isis*, with no editorial constraints whatever.” *Isis*’ (post-conference) letter follows:

To: DR, *DIO*, P.O.Box 19935, Baltimore, MD 21211-0935 1994/5/16

From: *Isis* [Jon Harkness, Managing Editor]

B31 I am sorry that we did not recognize previous issues of *DIO* that you have sent to our office as formal submissions to *Isis*. I must confess that somehow we missed the third paragraph of the inside back cover. [DR note added 1994/10: See fn 8.]

B32 Now that we do recognize your work as a submission to *Isis*, we must ask that you come a bit closer to meeting the guidelines in the “Suggestions for Contributors to *Isis*” found in the front matter of each issue of *Isis*. Indeed, if we are to take *DIO* seriously as a publication (which I expect is your desire),⁹ item 7 of our “Suggestions” precludes us from considering something that you have already published in *DIO*.

B33 Please send us a *manuscript* (following the guidelines of our “Suggestions”), & we will be happy to consider your work for publication in *Isis*.

B34 Reactions: [a] Having already submitted unpublished work to *Isis* in the past, only to find it later published under another author’s name (*DIO* 1.2 §I13), I was not about to repeat that mistake. (So scholarship must either be submitted to *Isis* — risking theft — or it isn’t *citabile*? How nice for archons.) [b] *Isis* appears to be under the curious impression that DR fervently desires *DIO* to be blessed by the imprimatur of being taken seriously by the HsS. Comments: [i] I think that the question which is most germane to HsS wellness is rather: when will *DIO* start taking *Isis* seriously? [ii] DR knows perfectly well that he is already taken in deadly earnest in higher HsS councils. (Given the distinctly non-blasé reactions to *DIO*, cited at §B19 and fn 11, it would be fruitless for the HsS even to try denying this.) Indeed, upon learning of *DIO* 1, the HsS tried calming the anticipated storm by publishing a note on the new journal — but then foolishly undid its own pretense by giving Muffia nonsense pageone *Isis* coverage — while not citing any *DIO* research, not even in years of *Isis*’ minutely-complete annual *Current Bibliography*: see *DIO* 1.2 fn 178.

B35 But the most critical questions are, as usual, the unstated ones. [a] What of the 45-item list of Muffia&HsS muffs? It was not copyrighted at the time. (It’s since become so in *DIO* 4.1 ¶4 §A.) And what of refereeing and-or publishing it (§B42 & fn 11)? Also: why no contact with Hugh Thurston, an expert at both the math and the literature, who (as *Isis* was informed: §B4 & §B38) had already examined the matter? [b] What sort of games are we playing? DR submits *DIO* analyses for years *without reply or a single citation of his results*, and then is supposed to believe *Isis*’ sudden expression of desire for *more* scholarship? After all these submissions, Rossiter then asks rather (4/22) for a letter for publication; but, when it’s sent (4/26), it isn’t published. Instead, *Isis* re-reverses direction, lies (§B30) with characteristic Hist.sci adeptness,¹⁰ & asks for: yet another ms. (This ever-changing, ever-doing-nothing editorial act is so familiar that DR explicitly declined to jump through any more hoops: fn 11.) [c] Bottom line: *Isis* has published false science and is ducking its responsibility to retract. This evasion has been accomplished with such sly subtlety that it has merely been boldprint-headlined in *DIO* 4.1’s *Competence Held Hostage* #1, now read by hundreds of leading scholars the world over. (When it comes to natural comedy — of the shifty-eyed Jonathan Winters variety — there’s nothing that’s

⁸ Of which DR retains photocopies.

⁹ *Isis* is a bit confused here: see §§B34&B35.

¹⁰ *DIO* 2.1 p.2 *Info-Note*.

quite up to a gang of scurrying careerists.) [d] In its hope to have DR pre-censor his *DIO* 1.2-3 exposures of Hist.sci buffoonery, *Isis* pretends that DR must write its retraction for it — as if DR must act as a truth-double for Hist.sci, or as if *Isis* cannot tell the truth unless DR is pulling puppet strings to move its tongue. Comments: [i] DR has already submitted plenty of material which *Isis* is free to use. (As for copyright: *Isis* can break its own rule. It has certainly treated DR exceptionally in the past when it felt like it! — see *DIO* 1.2 §I13 item [c]. And DR is asking no fee for reprinting *DIO* matter. Moreover: if *Isis* has a rule against citing *DIO*’s findings, then in *Isis*’ eyes [§B32] these results are effectively unpublished, which should permit their publication in *Isis* as fresh material. [How’s that for turning censorship against itself?]) [ii] Without DR’s permission, *Isis* can retract anytime it suffers an unexpected attack of integrity. Indeed, it could long since have simply refereed and cited *DIO* 1.2-3’s exposure of its orbital mess — but it still hasn’t done even this (or, indeed, ever cited any *DIO* research), which says about all that needs to be said of its pretense to editorial propriety. With these thoughts in mind, and with some distaste for corresponding at all with professional smoothies (an upfront person is always at a disadvantage when dealing with such types), I finally replied:

To: M.Rossiter & Hist.sci Soc, Cornell U, Ithaca, NY 14850 1994/7/6

From: DR, *DIO*, Box 19935, Balto, MD 21211-0935 (410-889-1414)

B36 I have received the History of science Society’s predictably non-responsive 1994/5/16 reply to *DIO*’s 1994/4/26 open letter to the Society. Your just-send-us-a-manuscript reply (§B31-§B33) evaded the 4/26 letter’s entire substance. (Will you even *allege* that this was accidental?) In case the HsS is trying to be funny, trust me: you don’t have to try.

B37 *DIO*’s 4/26 letter detailed high History-of-science atrocities, attaching a 45-item list of often-astounding scholarly errors (most easily-verifiable) published by leading Hist.sci forums, including your Society’s *Isis*. And the elementary-school-level Muffia muffs of Alexander Jones’ 1991/5 lead *JHA* paper — repeatedly cited in the list — underlie Jones’ 1991/9 *Isis* lead paper. The 4/26 letter asked that you seek scientifically able parties to referee these matters. (See, e.g., *DIO*-*JHA* 1.2 §§E3-E4, F3, 112, J2, J7, G9, & fn 73.) However, the HsS has reported no alien contacts since.

B38 Cambridge-trained mathematician (& 1994 Springer astronomy-history author) H.Thurston: [a] has *already refereed* the 1991 *JHA*-*Isis* Jones errors (1st detected&published by *DIO*) and [b] has verified the ordmag 1’ fits of all three *DIO* Greek orbits that solve the very Hipparchos solar-position trios which Jones declared unfittable. *Thurston’s phone numbers were provided in DIO’s 4/26 letter*, but you haven’t phoned him. Just how bad is Hist.sci innumeracy? You can’t even dial the 10 digits that will put you through to Thurston? *Science*’s Eliot Marshall says it was easy.

B39 In this context, your submit-an-ms ploy is comparable to answering a warning about the Inquisition by, rather than launching prompt opposition to suppression, instead: requesting that the notice be re-written, double-spaced, and re-submitted in quadruplicate (as per the 5/16-recommended “Suggestions for Contributors to *Isis*”) to a Church organ.¹¹

¹¹ For reasons obvious from the 4/26 letter & *DIO*-*JHA* 1.2 fn 165, I won’t jump through the editorial hoops of a journal whose censorial priorities are intimately known to me in advance. If you dears hope [a] to eventually find a technical excuse for continued inaction, or, failing that, [b] to try minimizing the debacle by ignoring refereeing and just running an inevitably-obfuscatory reply by reclusive Jones, then: you can play these games without my further input. An editor now suggesting submission of *yet another* DR ms to *Isis* (contra *idem*) has the same grip on reality as one who, after gagging&robbing (1983&9) a visitor to his house, then plans to meet criticism by straightforwardly mailing the victim a polite invitation to a 2nd visit. Facts (most already published & sent you) that are causing *DIO* to disrespectfully decline: [a] Involved Hist.sci archons have reacted with evasion, disdain, and-or naked hostility to Hist.sci-critic DR’s inconvenient fertility. They ought (see last parenthesis of *DIO*-*JHA* 1.2 §D4) to have *long since*

B40 We can save alot of wasted correspondence if we cut right to the bare facts you're unilaterally avoiding.

B41 Even while your *History of science Society Newsletter* (e.g., 1994/1 p.1) boasts of *outward* signs of HsS success (increased circulation & funding), the HsS continues to suffer a systematic decline in *substantial* technical competence and thus integrity. Which is why the Society is running scared-censorial with respect to *DIO*: you're worried that the larger academic community will catch on. Well, given the [simple] math errors supporting your [leadoff] 1991/9 *Isis* paper (Jones), HsS' trepidation is understandable. In striking contrast to *Isis*' suppressive fear of *DIO*'s criticisms: the lead article of our current *DIO 4.1* severely attacks a central *DIO* scholarly position, as well as *DIO*'s entire approach to science-history. *DIO* has sufficient confidence in the soundness of our work that such publication (and this intensely self-critical event will certainly not be unique) is no problem for us.¹²

B42 I repeat my 4/26 request that you REFEREE (& publish): [a] the Jones math errors underlying *JHA-Isis*' paper-pair, & [b] *DIO*'s discovery of the 3 historic orbits Jones declared unfindable. (*Isis*' honest printing of the resulting ref report would constitute a hypothetical metamorphosis which you can accomplish on your own, without editorial-formality-botheration of *DIO*. See *DIO-J.HA 1.2* §113[c] and fn 165.) Until you perform refereeing (which *you know* should've preceded your cart-before-horse invitation of a DR ms for *Isis*), further correspondence is pointless.

B43 Nonetheless, *DIO* stands by its unequalled and regrettably-unmutual invitation (fn 12) to **verbatim** *DIO* publication of a Hist.sci Soc and-or Muffia manuscript (up to 15 pp), on this or any other scientific-history subject. In brief, Hist.sci's *years* of monumentally unprincipled treatment of *DIO* (and R.Newton & DR) will not be returned in kind.

cc: David Lindberg (HsS Pres), Eliot Marshall (*Science*), etc.

B44 No reply has been received.

headed Andrew D. White's 1896 lesson at *Hist Warfare Science with Theology . . . 1:77-78*. (Careerist-identification test: do *historians* not care how *history* will rate their rôle in key scholarship's reception?) These archons include: reply-squasher Thackray, library-sterilizer Kargon, return-to-sender Hoskin, wastebasket-case Rossiter, chat-ducker Buchwald, & back-turner Toomer. [b] You haven't reported refing the material *DIO* has sent HsS (including the 4/26 letter's 45-item list, which you can ref&publish, anytime) & haven't phoned volunteer-ref Thurston. [c] During *DIO*'s 3 1/2 years, math-inept *Isis* (even its *Current Bibliography!*) and *JHA* have set a vacuum-seal ban on all citations of the seminal findings & achievements of numerous mathematically able *DIO* papers. (Hist.sci archons have long arrogantly promoted their own handsome journals as judicious Class, privately [§B19] scorning *DIO* as unrefereed [!!!] Trash. So confrontation-comparison of *DIO*'s impregnable math vs. Hist.sci's 45-gaffe list, is a HsS inversion-nightmare.) [d] Buchwald (HsS&Dibner) & you ignored, until 8 days too late, the 4/26 letter's urging that face-to-face debate be arranged at the then-upcoming 5/6-8 Dibner Inst-Muffia conference. [e] At the Dibner meeting, *DIO* sample issues were stolen. [f] DR's last submission to HsS' *Isis* met with censorship (1983) and (effectively) theft (1989). (By the very scholar HsS censorship had protected! See what I mean about effortless risibility?) You don't even reply to *DIO*'s 4/26 report of *Isis*' behavior on this. (Details: *DIO-J.HA 1.2* §113 & fn 164. See also fn 56-58.)

¹² Indeed, *DIO* is willing to print whatever scholarship you, the Muffia, and-or the *JHA* wish to send us, however blunt. We have (*DIO-J.HA 1.2-3* fn 16 & fn 174 and *DIO 2.1* ¶2 fn 22) long regularly cited our detractors' papers & praised their valid findings. (This, even while you & Muffiosi *utterly* refuse to cite *DIO*'s achievements, referring instead to each others' censorial output. Standard Hist.sci policy, noted at *DIO-J.HA 1.2* §C11: *cite the non-citers and non-cite the citers.*) HsS is increasingly a business, whose image-protection priorities prevent it from consistently matching *DIO*'s open policy: [a] HsS is pretending to be more competent (or less incompetent) — especially in math & math astronomy — than it actually is. [b] It pretends to referee archonal papers when there is in fact no substantial refereeing going on: *DIO-J.HA* §§B4, C6, & F4. (I know this both from [output]: [. . . *DIO-J.HA 1.2* §B4] and from direct inside testimony.) Indeed, *nearly 3 years later you still* haven't reported refereeing Jones' 1991 Sept *Isis* fantasy: you didn't seriously referee it beforehand (despite 1991 January warnings in *DIO 1.1*, re-published at *DIO-J.HA 1.2* §§B1&C5-C6), and (5/16) didn't even acknowledge *DIO*'s recent 1994/4/26 suggestion of refereeing (& didn't phone Thurston).

C Oddly Large Errors

C1 In *J.HA 1.2* (§F3), DR resuscitated an R.Newton letter which threw light on one of 0 Gingerich's dimmer effusions. I later came upon a DR letter of the same period which did likewise, so I provide its text here. The letter comments on the peculiar coincidence that all of Ptolemy's perfectly theory-accordant Mars "observations" (*Almajest* 10.7-8) are pretty near orbital octants, where the equant theory (adopted by Ptolemy) is least satisfactory.¹³ (See R.Newton *Crime of Claudius Ptolemy* 1977 p.302.)

To: Robert Newton

1980/11/11

From: DR

C2 The [item] 0 added (since the [SAO] preprint of 1977) to his [1980] Sept. *QJRS* paper was (p.262, bott.) that *both* observational and theoretical errors were far larger for Mars (than for Jup. & Sat.). 0 doesn't say so, but the devastating point here . . . is that: if there were lots of observations in the big hypothetical data bank 0 believes in, then why didn't [the allegedly-just-selecting-not-fudging] Ptolemy choose non-octant [observations], where the [errors] would be much smaller? That is, in a large collection of real observations, there would be . . . more data of small error than large; thus, even "selected" (theory-accordant) observations (0's hypothesis ii) would tend to cluster around the times when the theory's error is null This is obviously not the case for Mars.

C3 Similarly, one sees that, of the four alleged solar observations reported by Ptolemy (*Almajest* 3.1&7), most are from the least accurate seasonal points of his solar orbit (¶6 §A2): A.Equinox & S.Solstice, which are more than half again worse than his V.Equinox, and nearly twice as bad as his W.Solstice.

C4 Alleged observations of the W.Solstice are entirely unreported by Ptolemy, though the WS is the most accurate of his solar theory's 4 seasonal points. At epoch 140 AD, the lateness error of Ptolemy's solar theory was about: $26^h 1/2 + [10^h 3/4] \sin[\lambda - 38^\circ]$, where λ = true longitude. The errors of this theory¹⁴ at the cardinal points were: $20^h - [VE]$, $35^h - [SS]$, $33^h [AE]$, $18^h [WS]$.

C5 Again (as at §C2): if Ptolemy were merely selecting theory-accordant observations from a real data-pool (instead of entirely fabricating the alleged observations), wouldn't we expect most of his data to be reported for his solar theory's most accurate cardinal points, the V.Equinox & the W.Solstice?¹⁵

¹³ This is so perverse that one wonders if Ptolemy was attempting to refute a critic — or (one may speculate) an ancient who had a theory that was (vs. the equant) more accurate at the octants. (Not necessarily a Keplerian theory, though I wouldn't rule out such.)

¹⁴ The errors of "observation" were $20^h + [VE]$, $35^h 1/2 [SS]$, 33^h [both AE]. The two 1^h disagreements with theory (VE&SS) occurred because Ptolemy's fabrications were not carried out from his solar tables but rather by the simple-arithmetic method discussed at ¶6 §A2. For the irony of these discrepancies, see *J.Hyster.Astron 1.2* fn 64.

¹⁵ [Note added 1995: Of course, if there were no prior W.Solstice observations (and none are extant), then Ptolemy wouldn't have anything to compare a contemporary WS to. But, that alibi doesn't apply to his V.Equinox situation, where even if we use an overlarge (vs. *DIO 1.1* ¶6 fn 13) standard deviation $\sigma = 6$ hrs for these data (this being the upper error limit suggested by Archimedes, Hipparchos, & Ptolemy: *Almajest* 3.1), then the respective Gauss-distribution probabilities of Ptolemy's AE & SS errors (both many millions to one) are ordmag 10,000 and 100,000 times the Gaussian probability of his VE error. I recommend to the reader the instructive but oft-neglected discussion at R.Newton *Crime of Claudius Ptolemy* (Johns Hopkins Univ 1977) pp.343-344 (also p.92), demonstrating that *no matter what we choose* for σ , the probability of Ptolemy's observations being real is minuscule. Reasoning summarized at R.Newton *Origins of Ptolemy's Astronomical Parameters* (U.Md & Johns Hopkins U. 1982) p.43.]

‡8 The JFK Assassination Conspiracy Conspiracy

Professional Paranoid Clique Flunks Paranoia 101

The Warren Report Was Right

A You Can't Say Sarajevo Doesn't Love You

A1 Archduke Franz Ferdinand (FF) was one of a number of persons close to his uncle, Austro-Hungarian Emperor Franz Joseph (FJ), who died violently, the others being FJ's wife Elizabeth (assassinated 1898) & son Rudolf (who co-suicided with his latest teen mistress in 1889). FF is not exactly a sympathetic character; like Rudolf, he was the sort of sweet soul whose idea of an afternoon's entertainment was shooting a few hundred rabbits. On the other hand, it was FF who suggested that the dying Austrian composer Anton Bruckner come to the Belvedere Palace¹ to live out his last months before his 1896/10/11 death. (Bruckner was one of the brightest stars in that astounding galaxy of artistic creativity produced by the wealthy Empire's middle class. Rural-product Bruckner had a hick accent, so he was kept in the servant's quarters — but I like the essential sympathy of FF's gesture.) FF is now principally remembered since his end marked the beginning of World War 1.

A2 Desiring fence-mending with restless Serb nationalists to the south, FJ (who was having trouble with FF) sent FF down to Sarajevo, to enjoy a motorcade ride through (mostly) cheering throngs. When a bomb was thrown at his car, it failed. FF complained to the town fathers about this impoliteness and was assured that there'd be no more bombs. There weren't. He and his wife were fatally shot² instead, later in the day, during part 2 of the same motorcade.

A3 John F. Kennedy published a history book (*Profiles in Courage*,³ 1956) with his name on the cover as author, so we know he was an experienced historian. And since he ran the US, he was not a fool.⁴ (The public elected him as President, and the public is never wrong.) That's why when someone suggested he imitate Franz Ferdinand and mend political fences in the (US) south in 1963 November, by riding with his wife in an open

¹ The humble outbuilding where Bruckner died still stands on the Belvedere grounds, identified with a plaque. (The intensely religious composer prayed that his deity would permit him to finish his 9th Symphony. God's kindness failing, [U.S. physicist] Wm.Carragan's instead completed the 9th's tensile Finale in 1983.)

² Serbia has long suffered under foreign boots (the Serbian dead in WW1 were more than six times the US'), such as FJ's secret-police-riddled Catholic dictatorship-Empire. This may be related to Serbs' current brutal-overkill desperation-tactics for ensuring their independence of historically-suspect neighbors, such as pious & Nazi-collaborating Croatia. The 1914 assassin, Princip, is widely regarded there as a Serb legend-hero-patriot. A monument now marks the spot of his act.

³ JFK is best remembered for forceful public speeches, e.g., at the Berlin Wall: "Ich bin ein Berliner." Well, just as Europe reserves the name "Amerikaner" for the grossest, most glutton-seeking ice-cream cone known to manperson, so the fattest jelly doughnut is called "Berliner" in Germany. (We thank Cönnie Goessman for this bit of foreign intelligence.) So numerous Germans wondered at the time why the US press went wild with apocalyptic fervor when its President chose to announce to the world: "I am a jelly doughnut." Musing on this while our families were walking in Baltimore's inner harbor, a friend (who has the unDIOesque decency to prefer anonymity) recently noted (1994/7/23) that if the symbolically-divided city of Germany had been different, the saying might have been: "Ich bin ein Frankfurter." With a more northern German city in mind, I responded by suggesting that a worst-possible-taste black-humor photo-caption for the fatal shot in Dallas could be: "Ich bin ein Hamburger."

⁴ In a serious vein: a President, whose hotdogging bravado would cause him to ride around in an open auto in gunhappy Dallas, betrays a sense of invincibility and-or fate which suggests an obvious question. Is this the sort of person whose finger we want on the nuke button? [Note added 2003/11/22. In 1961-1963, an obsessively competitive & steroid-pugnacious US president ordered Castro's termination, to macho-avenge Bay-of-Pigs shame; and risked human extinction by playing Buck-Turgidson-chicken (over Manichean ideologies) with commie imperialism. (J. W. Booth sought *post-war* recoup; Oswald may've intended war-*pre*-emption. But was the 1963 JFK still in-heat? Or, after secret-dealing missiles out of Turkey, did he ironically die from obsolete hawk image?)]

motorcade through restive Dallas, he laughed off the very idea as a joke in exceedingly questionable taste⁵

B Gunslingers & Bullslingers

B1 I must be one of the very few (seemingly) ordinary citizens who ever spoke directly to Earl Warren about the Warren Report on the JFKennedy assassination. One day c.1971, while walking towards the Library of Congress, I ran into Warren behind the Supreme Court Building (evidently waiting for a limousine). When I first approached him, he seemed edgy and reluctant to chat. (He was probably envisioning the evening newspaper headlines: "ASSASSINATION REPORT CHIEF ASSASSINATED . . . LONECRAZEDGUNMAN . . . Broad Daylight . . . Supreme Court Back Steps . . .") But we talked anyway for about 5 minutes. Most of this was spent in my asking him about the odd behavior of the National Geographic Society with regard to the N.Pole Controversy — since Warren was on the NGS Board. His reply was: "I have nothing to do with it." (I guess it *was* a little naïve for me to seek justice by talking to the Chief Justice of the United States.) He suggested I speak to NGS Pres. Mel Payne, whom he described as accessible. I responded that Payne certainly was accessible. To Earl Warren.

B2 Near the end of the conversation, I asked about the Warren Report. He looked into the distance and said only: "Nine months of work. And nobody believes it."

B3 I should have replied (but did not) that: a key reason the Report was not believed was that his rôle was as titular⁶ for the Report as for National Geographic.

B4 Irony. What has caused the 1964 Warren Report's collapse in public acceptance is partly the very weapon that was originally used to put it over on the public in the 1st place: an unremittingly one-sided propaganda campaign by our slavishly royalist Fullcourt Press. For years after 1964, the US press would print no doubt⁷ whatever of the Warren Report. Now, attacks on it comprise most of what the public hears. (This for 2 main reasons: [a] Sensation sells. [b] The Dems have realized the political utility of the JFK-conspiracy legend: Dem hero, shot down by dark forces before he could bring the blessings of Dem gov't to the needy here & abroad.)

B5 What is the truth of the murder⁸ of JFKennedy? The statistical & physical oddities are striking:

[a] L.H.Oswald's prescience in — allegedly by pure chance — finding a job (months ahead of time) on a motorcade route. Especially odd for someone who'd earlier allegedly shot at Gen.Walker — a deed that already ranked him as the top political assassin operating in the US at the time.

[b] Oswald's chameleonic associations & travels.

[c] The near-pristine bullet found just-lyin'around on J.Connally's stretcher.⁹

⁵ Of course — as is well known (*DIO* 2.3 ‡8 §C5) — when it comes to truly bad taste, *DIO* can match any excess: e.g., fn 3 & *DIO* 1.3 §R2.

⁶ The Warren Report was composed almost entirely by underlings. Like §A3.

⁷ Until Bush lost the 1992 election, most of what the tooboisie was absorbing regarding the Kennedys (besides alot of unverifiable garbage on Jack's purported amours: fn 17) was fantasy-nonsense about how they personally murdered a crumbling filmstar — who was in fact killing herself so rapidly with pills, that only a superquixotic magician could have beaten her to it. Bush's decline hasn't ended the propaganda; it's merely changed the script (following Stone's pre-election film, *JFK*) to one that's differently ludicrous: Kennedys as conspiracy-murder-victims instead of conspiracy-murder-victimizers.

⁸ Revealingly, the media doesn't usually call war-deaths murders. Presidents routinely send average folks into battle, where they get gruesomely shot to pieces. (Little public sympathy is expended upon them. As Sherman wryly put it: being an ordinary soldier means that, when you are killed, your name gets misspelled in the newspapers. See below at fn 23.) So it may be salutary for the US rulership to be reminded on occasion of how bloody frontline war is. (*DIO* 1.2 fn 52 vs. here at ‡9 §I2.)

⁹ The "magic bullet" theory (that the same bullet went through JFK's neck and Connally's chest) has been so repeatedly damned as incredible that its falsity has become widely taken for granted. DR comments: [a] It is striking that Connally was hit slightly lower (nipple area) than JFK (neck) — a line connecting these wounds points towards

[d] The backward component of Kennedy's motion after the fatal shot. Impossible (if bullet from behind) for an inelastic collision. (Though: not impossible if an explosion produced a rocket effect, with brain-matter or a split-skull piece bursting at high speed to the front-right,¹⁰ causing a Newton-Third-Law reaction to the back-left.)

B6 However, there is a little-noted crucial oddity on the Warren Report side: it is generally agreed that at least one (& very likely both) of the two¹¹ major time-gaps between the shots was about 2-3 timesec. This is consistent with a single bolt-action rifle's involvement.

B7 More important, it is inconsistent with a conspiratorial interpretation¹² of the assassination, in 2 critical senses:

[a] If there were a concerted cross-fire, the shots would have come much more thickly & rapidly¹³ — and the famous Zapruder film sequence would resemble the Brownian-fastmotion ketchuppy-ragdoll finale of *Bonnie & Clod*. (And the limousine — seen by hundreds of spectators at Parkland Hospital — would be dotted with bullet holes. So the conspirators must've since paid 'em all off or rubbed 'em out. . . ?)

[b] And if the assassin (alone or no) were working for a group of the slightest significance, could this hypothetical group not afford to equip him with a weapon capable of getting off more bullets/sec than a cheap bolt-action rifle?!

B8 Any group attempting to kill JFK would scorn backing such an amateur job, if for no other reason than that a bungled assassination attempt would only scare the quarry into greater caution, thus making another assassination opportunity much less likely to offer itself.¹⁴

B9 Coincidences in connection with the JFK assassination have been covered extensively in the media — all except the most important ones: [1] §B5 item [a], and [2] the

a spot above and to the rear of the limousine. At the Texas Book Depository 6th floor's distance, the height is about right. (A stark coincidence not mentioned by conspiratorialists: the only other wounded person in the motorcade was the one person on a line with JFK & the Warren Report's proposed TBD gunman-perch.) [b] Though it seems that, if the shot came from there, Connally should have been hit on his left side by a bullet going through JFK's middle, the fact is that JFK was more to the right of the car than was Connally since (as the Warren Report notes and as is clearly visible in photos) there was a small, empty jump-seat just to Connally's right. [c] If the WR had claimed that 2 separate bullets hit the two men, the WR's critics would be howling with a different brand of complaint, namely, asking where the bullets went. (No whole bullets were found in the car.) Some critics cannot be satisfied. [d] JFK's back wound was tiny and thus obviously an entrance wound. This is clear from the autopsy photos — which also show that this wound was not lower than the neck wound. (For years, numerous WRcritics have said it was — and have claimed JFK was shot in the throat from the front, though this would seem to require a bullet-hole in the back seat (or the top of the trunk) which no photo (or witness at Parkland Hospital) has recorded. Indeed, if the crossfire hypothesis were correct, the limousine should have been peppered with holes. Nobody saw them.) And, while the neck wound was obscured (by a futile tracheotomy), Connally's wounds are a definite part of the record: 15 mm-long elliptical in back, 50 mm wide in front of chest. Two conclusions: [a] Since an entrance wound is smaller, Connally was shot from behind (just as the WR said). [b] Since the bullets' width is only 6.5 mm, the entrance wound in his back was made by a yawning bullet (just as the WR said). [e] Thus, all of this simple physical evidence is consistent with the single-bullet theory, which the WR's authors proposed only reluctantly, because they too regarded it as a-priori unlikely — but were forced (by the foregoing data) to prefer.

¹⁰ In 1992, *Time* noted that a Zapruder film frame right after the fatal shot indeed shows head-matter (brain or skull fragment) zooming forward and upward from JFK's head. Moreover, autopsy X-rays show a bullet fragment on the skull's *inside* near the right eye, which seems unlikely if the final shot were from the front. Evidently, physicist Alvarez has reproduced the [rocket] effect with gelatin-filled sheeps' skulls.

¹¹ It is little known that the Warren Report also entertained the possibility that there were not 3 shots in Dallas (as is generally assumed) but only 2.

¹² The US Left has twice lately attempted to blame its failures (not on its own shortcomings but) on Presidential assassinations: Zach Taylor & JFK. In both instances, neither the hypothetical purpose nor the case for conspiracy is particularly convincing. Taylor was supposed to have been murdered because he wished to stop slavery. JFK because he wanted to stop the Vietnam War or the Mafia. Facts: Taylor was a slaveowner. JFK was the President who got us *into* the Vietnam War. And the Mafia allegedly had enough dirt on Kennedy that it didn't need to cover him with it. See below at fn 17.

¹³ What sort of idiot conspirators are being proposed here? After the first shot, they loiter for a precious few seconds before beginning the (invisible) concerted crossfire?! (Have they some private information that JFK has pre-agreed not to duck during that time? . . .)

¹⁴ Admittedly, FF's 2nd ride through Sarajevo suggests that such hypothetical fears might be based on overestimating leaders' intelligence.

timing of the film, *Manchurian Candidate*. In 1962, for the first time in the history of US cinema, Hollywood turned out a movie which depicted a potential US President being shot — shot fatally in the head, by a rifle (not a handgun), from a high perch. Only once has a US President been shot in the head by a high-perch rifle, and it happened in 1963 — only a year after this 1962 film's public release. Now, the Entertainment Industry pays out alot of p.r. money to reassure the US public that the link between violent film and real violence is no more than "controversial".¹⁵ Nonetheless, the odds on that coincidence, in a country 2 centuries old, are ordmag 100-to-1.

B10 One of the groups often rumored to have wanted JFK dead was organized crime. And if the mafia had any influence in Hollywood (a persistent rumor which we all know is merely a stereotypical slander), then: an irresponsible paranoid might suggest that the film (which was based on a crackpot theory of "hypnotic" suggestion, if you'll pardon the redundancy) was itself made as a suggestion — just hoping some nut might be triggered by it. (If one seeks a higher responsibility for the JFK assassination, this is probably the nearest thing to a semi-rational case for it. Another possibility along this line is suggested by the FBI's feud with the Kennedys. Given that [a] Oswald was an FBI informant,¹⁶ and [b] the FBI did not warn the Dallas police that he was considered odd, one could possibly envision a who-will-rid-me situation, of the Henry-Becket variety; but, that is not conspiracy. Anyway, perhaps we cover the mafia theory enough here, without dredging up the FBI, whose chief Jedgar Hoover was organized crime's most beloved gov't figure.) The main weakness¹⁷ in this theory is presented below in §B12.

B11 With the elimination of JFK (and thus RFK's anti-mafia Attorney Generalship) a done deed, the film completely disappeared¹⁸ after 1963 — for a quarter century. And no rifle assassination-try has occurred in that time.

B12 The dedicated conspiratorialists on the JFK murder propose that he was eliminated because he threatened a big power-faction, such as Pentagon or CIA. (Similarly, the recent exhumation of Pres. Zachary Taylor was inspired [fn 12] by the suspicion that he was murdered because he was on the verge of upsetting the repulsive institution, slavery.)¹⁹ All such theorizing is short not only on reality but, implicitly, even on explanatory paranoia! Let's ask a return-to-reality question here: whatever gave these dreamy theorists the flaky notion that anyone who would fight such forces could ever *possibly* come within 100 miles of getting elected President in the 1st place?²⁰ (And these people call themselves "conspir-

¹⁵ See *DIO-JHA* 2.3 ¶8 fn 52. Same familiar the-public-is-ineducable hypothesis which defense lawyers use, to argue that publicized capital punishment does not deter murder. However, the selectively-applied (¶9 §E2) ineducability hypothesis is not much heard when a city's pol-lawyers annually argue for increased taxes to pay for public schools.

¹⁶ Has it been recorded that 1/2 of the last 4 persons to shoot at a US President were FBI informants? [Note added 1994/12: recent activity around the White House may alter these numbers. (Maybe there's a line: ¶9 §H6.)]

¹⁷ Also, if the story of JFK's liaison with Momo-moll Judith Exner is more credible than the current Flowers-Clinton report of same [note added 1998: original *DIO* edition erred in implying no F-C sexual contact at all], then the mafia had simpler ways than murder to keep the Kennedys from interfering with its #1priority: business-as-usual.

¹⁸ The story is that Dr.F.Sinatra (who says he has no mob ties), one of those who helped make the film a big success, was responsible for deepsixing it once JFK was gone.

¹⁹ In some dismay, I will take this as a cue to record here a little partly discreditable family-history. I wonder how many living persons not only once had physical contact with a US slaveholder, but have photographic proof of the occasion. Though my mother's side of the family was fervently pro-Union (we have her father's original 1885 edition of Grant's excellent *Memoirs*), my great-grandparents Edward Albin Rawlins (1822-1871) & Gay Murray Rawlins (1843-1937) owned (as DR only learned this year) the isolated Virginia slave-plantation "Berry Hill" (a fraction of a mile north of the middle of the N.Carolina border), from the time of the War Between the States, until 1875. We have two photos of Gay (born when Virginia's John Tyler was President — before the discovery of Neptune): c.1850 at age c.7, and 1937 at age 94 (a widow for 2/3 of a century), holding DR (a few weeks old) in her arms on the porch of her last home, 214 E. University Parkway, just east of Johns Hopkins University. (Her elder daughter, Gay B. Rawlins, graduated in the 2nd class of nurses to come out of Johns Hopkins Hospital in the 1890s.) At age 20, Gay married Edward (then twice her years) in 1863. Their engagement ring was successfully concealed in the upholstery of a small wooden stool when Federal soldiers raided the Berry Hill grounds in 1865. My wife & I have preserved both the ring and the stool. Edward is interred at Berry Hill; Gay, near J.W.Booth: fn 22.

²⁰ See *DIO* 2.1 ¶1 §A10 & *DIO* 2.3 ¶6 fn 23.

atorialists”?) Or, as my wife succinctly summed²¹ it up: it is therefore no longer possible for a US President to be murdered by anyone other than the classic lonecrazedassassin.²² To believe that grabbing control of the gov’t is accomplished by public gunfire is equivalent to believing that mafiosi are still shooting up Chicago. Whether the organized crime we are examining is the mafia or the US gov’t, it should be realized that gunsels are ancient history for the truly big operations. (The sound of gunfire is a symptom of the lowest end of the crime spectrum.) Modern mobs operate by payoffs: hired admen, hired lawyers, hired media, hired TV comics, hired judges, & hired pols.

B13 I.e., bigleague crime has evolved from crass gunslingers to class bullslingers. Conspiratorialists ought to be the first to understand this. Indeed, a refined conspiratorialist ought to have long since been exploring the theory that the whole Mock Lane-Jim Gassin’ faction is really just a bunch of gov’t operatives whose conspiratorial mission is to obscure Plunkitt’s Truth (fn 20) by propagandizing the preposterous implicit²³ notion that US elections could ever produce a President that anyone of the slightest power would want to shoot.

Note added 2003/11/22. My wife&I were in New Orleans 1963/8/12-15; we encountered a man on the street handing out Fair-Play-for-Cuba leaflets. (W.Rep. has Oswald doing so from 8/9, hiring 1 helper from 8/16.) In some sympathy²⁴ we took one. Come November, we thought it possible that the man had been Oswald, but weren’t sure. However, during the current 40th anniversary memorial coverages, we realized he *was* New Orleans’ (allegedly unchartered) FPfC-Committee. So we checked trip-photos’ dates vs Oswald’s and found: the man we met was probably him. Pairing this incident with §B1: how many pedestrians ever randomly bumped²⁵ into both Oswald (almost certainly) and Warren (certainly)?

²¹ On 1993/2/3, the effective date of completion of this article. (Announced on 1992/10/30 in DIO 2.3 p.90: “Upcoming”.)

²² I of course exempt agents of a foreign gov’t, a class which included John Wilkes Booth. [Note added 2003/11/22. Oswald may’ve been working for Cuba, whether or not Castro knew it.] (Booth is buried a few dozen meters from my father, Louis Murray Rawlins, Jr, who was Director of the Baltimore Airport until his WW2 death.)

²³ As noted, the unasked-question implication suffusing conspiratorialists’ discussions is more important than the explicit questions that are asked. Similarly, the conspiracy-folk describe as “heinous” JFK’s murder, which I prefer to see in the context of those thousands of noncelebrity humans (US and foreign), who died in battle during (& after) JFK’s tiffs with Cuba & Vietnam — but who merit rather fewer press tears. (Conventional cold-warrior JFK got the US gumped up in the Vietnam War, which cost ordmag a million Asian lives — a figure almost never mentioned when the 58,000 US dead are recalled. See fn 8 & ‡9 §A1.) Typically, while TV ’snews is obsessed with ethnic (or lifestyle-related) inequities, it ignores the inequity of fuss made over the fates of the mighty vs. those of the Less Fortunate. Twain’s *Connecticut Yankee* criticizes conventional histories for similar lack of perspective. From chap.8, “The most of King Arthur’s nation were slaves, pure and simple, and bore that name . . . ; and the rest were slaves in fact, but without the name . . . the nation as a body was in the world for one object, and one only: to grovel before king and Church and noble; to slave for them, sweat blood for them, starve that they might be fed, work that they might play, drink misery to the dregs that they might be happy, go naked that they might wear silks and jewels” Chap.13 praises “the ever memorable and blessed [French] Revolution, which swept a thousand years of . . . [villainy] away in one swift tidal wave of blood . . . a settlement of that hoary debt in the proportion of half a drop of blood for each [barrel] of it that had been pressed by slow tortures out of that people in the weary stretch of ten centuries of wrong and shame and misery There were two ‘Reigns of Terror,’ if we would but remember it and consider it; the one wrought murder in hot passion, the other in heartless cold blood; the one lasted mere months, the other had lasted a thousand years; the one inflicted death upon ten thousand persons, the other upon a hundred millions; but our shudders are all for the ‘horrors’ of the minor Terror . . . what is the horror of swift death by the ax compared with lifelong death from hunger, cold, insult, cruelty, and heartbreak? What is swift death by lightning compared with slow fire at the stake? A city cemetery could contain the coffins filled by that brief Terror which we have all been so diligently taught to shiver at and mourn over; but all France could hardly contain the coffins filled by that older and real Terror — that unspeakably bitter and awful Terror which none of us has been taught to see in its vastness for pity as it deserves.” (A similar sense of balance is also useful, when weighing swift&drastic vs. soft&ineffectual solutions to the US’ perpetual welfare-poverty-misery-holocaust: DIO 1.1 ‡2 fn 4 & §D5.)

²⁴ In 1962, we phoned-in a question to Betty Furness’ program: is the US press consistent in portraying Castro as both megalomaniac & willing-Moscow-puppet? We were awarded a 1961 edition of the *Encycl Brit*, which we still have. (We also possess an original rice-paper 1910-1911 set of the *EB*’s legendary 11th Edition [& 1922 12th Ed].)

²⁵ Other DR coincidences: DIO 6 ‡5 fn 9, DIO 4.3, DIO 11.2 ‡4 fn 21. Ultimate coincidence: coincidences themselves have been (for both good & ill) an abnormal feature of DR’s life.

‡9 Scrawlins

A A Sense of Proportion

A1 In the 1970s, William Rawlins made a comment which is revealing in the context of the Church’s continuing obsession with sex vs. real sin: As the Church stood silent while US saturation bombing of Vietnam killed a million Asian atheists (who have no names on any monument in Wash, DC) [plus their foetuses], in a Cardinal-Spellman-approved war, & turned sections of Vietnam into lunar scenery, Bill suggested: if you want to get the Church upset¹ about this, then: have US airplanes drop condoms on Vietnam instead of bombs.

A2 As the average US citizen is (even between wars) subjected to hundreds of nightly-news & other media-entertainment murders per annum (including the most extreme cinema grue), nonetheless, death-penalty opponents continue to argue that the (very) occasional² & (very) sanitized state execution of a murderer might (§E2): brutalize US society.

B Doubletakes

B1 Ross Perot is upset (CBS-TV 1992/3/23) that, in the US, business and gov’t have: an adversarial relationship.

B2 *TVGuide* 1991/3/9 article, quaintly entitled “TV’s Top Cop Flops with His Women Costars”, quotes Fred Dryer: “I will not allow you to say my ego played any part in anything.”

B3 Eva Weber *Art Deco* NYC 1994 p.7 (picturing the New York World’s Fair Trylon & Perisphere): “[The] 1939 World of Tomorrow fair brought the Art Deco era to a close.”

C Will the US Empire Last for 535 Centuries?

Edward Gibbon³ (*Decline & Fall of the Roman Empire* Chap.35 [mid-5th century AD = end of 12th century after Romulus]): “As early as the time of Cicero and Varro it was the opinion of the Roman augurs that the *twelve vultures* which Romulus had seen, represented the *twelve centuries* assigned for the fatal period of his city. . . . But [Rome’s] fall was announced by a clearer omen than the flight of vultures: the Roman government appeared every day . . . more odious and oppressive to its subjects. The taxes were multiplied with the public distress; economy was neglected in proportion as it became necessary; and the injustice of the rich shifted the unequal burden from themselves to the people If all the barbarian conquerors had been annihilated in the same hour, their total destruction would not have restored the empire of the West: and if Rome still survived, she survived the loss of freedom, of virtue, and of honour.”

¹ Similarly, see DIO 2.3 ‡6 fn 10.

² Fact, customarily overlooked on TV ’snews: for every 100 US murders, the state executes roughly 1 murderer. Sort of an upside-down Heydrich ratio.

³ Instead of catering to the passing propaganda-fashions which bound ordinary scholars’ effusions, Gibbon strove for truth & fairness — which is why his classic work now outshines others of his day, even despite centuries of attempted suppression. Indeed, his work had the special distinction of being on the Vatican *Index of Prohibited Books* (*Index Librorum Prohibitorum* Vatican City, 1948 ed., p.190) starting on 1783/9/26, five years before the work’s serial publication was completed, in 1788! The *Index* is no longer published, being such an embarrassingly clumsy expression of the Church’s continued program, of thought-control domination of its subjects, that it has lately been thoroughly Memory-Holed. Indeed, one might say that, today (for now), the only book effectively prohibited to Catholics is: the *Index of Prohibited Books*. (Similarly, see DIO 2.1 ‡3 fn 32.)

D Split-Second: Life's Start as the Most Murderous Moment

D1 On 1994/8/2 (at Brown's Arcade), I lunched with my life-long friend, Mac Plant, who now co-runs his own law firm — and in addition is, e.g., on the board of T. Rowe Price. (Mac & I were in the same 1942 class at Roland Park Country School at about age 5. And we used to spend many a 1955 afternoon chatting over philosophical matters in empty classrooms at Gilman School, where we both graduated that June.)

D2 We soon got on the subject of lawyer jokes (see *DIO* 2.3 ¶8 §D4 for our own gift to this literature), and I mentioned the one I owe to Marcello Truzzi's good cheer: "Why is a lawyer like a sperm?" "Only 1 in 10 million turns out to be a human being."⁴

D3 Mac then raised the serious question: what are the odds on getting born? The very question had long nagged at me, too — and had most recently triggered DR's wonder a few years ago (leading to the writing of §D6, below), reacting to a Ken Burns interview (in his memorable pro-North series on the War Between the States) of a Pickett's⁵ Charge-survivor-descendant's WHEW (about the odds of his getting born). I had then noted the much, much smaller likelihood, of the specific sperm & the specific egg that made any of us, ever getting together. It had to be many millions to one. And then there are the same amazing odds on your parents' getting born, etc. Multiplying all these probabilities: the odds against your ever coming into conscious existence are lower than the odds on the kinetic motion in your chair accidentally joining momenta to kick you five meters high.

D4 It turned out that Mac — who, in an ideal world, would have been one of the great academics — had thought all this out years ago, in connection with a semi-nightmare that appeared during his Princeton undergrad years.

D5 Neither Mac nor I is a mystic, so ensoulment-theories aren't satisfying. (And they explain nothing.)⁶ Some DR comments: [a] There is a *sine-qua-non* aspect, here. You couldn't even ask the question unless you already existed. [b] Every state of the universe's atoms is astronomically unlikely; so we who exist are part of that improbable scenario.

D6 Conception is nowadays commonly spoken of as the time of the beginning of human life (though Aquinas put it 40^d later⁷ for men and 80^d for women — typical for a Church that, even 700^y later, still bars women from its gov't). But it is more accurately described as a moment of mass-death. In a given city, at any moment, thousands of sperm and egg cells co-exist, ready for co-fertilization. (Thus, many millions of permutations are possible.) Each of these cells has the potential, when combined with any cell of the other type, to produce a unique human being. But when the actual combination-moment ("conception") arrives, all but one of these *millions upon millions* of potential persons dies (automatically aborted). Forever. (Subsequently aborting the resulting foetus can add less than a percent of a percent of a percent to the ghastly mass-slaughter total.) In this sense, nature itself (or God, if one is so inclined) is unavoidably more abortively brutal than any social policy mere men have ever devised. The number of sperm-egg couples that are doomed to permanent-splits, in this split-second, would greeneye the busiest divorce-lawyer.

⁴ This also reminds me of the question that has lingered in my mind since about the age of 8: why was I lucky enough to become a human instead of, say, a tree? And not only born a person but: into a kind, cultured family. Going further: why was I so fortunate as to stumble upon scientific-history discoveries that will live (whether or not under my name) as long as man values the remembrance & understanding of our predictive-science intellect's ancient origins (§K3)? And (§K13): why does Now reside in my brief (§P3) lifetime?

⁵ Geo. Stewart *Pickett's Charge* 1.10 (1963 pbk ed, p.32): South Carolinian General James Longstreet (who opposed the suicidal Charge and was as hated in the post-war South as pro-Charge Rob't E. Lee was adored) was "not a quarrelsome man, but a man who created a considerable retinue of enemies, largely because he weighed evidence and therefore frequently committed the unforgivable sin of being right; most of all, perhaps, a realist, trying to base his judgments upon determined fact, and then stubborn to maintain them."

⁶ The following question is posed by Paul Thomas, S.J.: if ensoulment (the moment at which the alleged soul enters the human) occurs right after conception, then, what happens when, in the case of twins, this foetus splits? Does the initial soul go to the left twin or the right one?

⁷ Shorn of its gender-discrimination aspect, Aquinas' ensoulment-weeks-after-conception delay doesn't seem so irrational, upon consideration of Jesuit doubting-Thomas' point, cited at fn 6 here.

E Murder as Life's Most Educational Moment

E1 Conventional criminologico-wisdom on murderers carries an implication hitherto shockingly neglected: *murder is our most under-appreciated educational tool*. Name me another rehab-treatment — *any* treatment — which can *instantly* transform an individual from ineducable to educable.⁸

E2 Keep the Guns In Our Schools: It passes my understanding why misguided softie-reformers want to disarm kids in our bullet-riddled schools. After all, bleeding-heart orthodoxy itself makes it a logical certainty that *ONLY* when a kid commits murder — *ONLY* at that precise, holy, long-sought moment of Educational Miracle (for which gov'ts have fruitlessly spent billions on wasteful follies like universities: ¶8 fn 15), will the poor child magically transform⁹ and thereupon enter into the select brotherhood of: those who can be taught. For, we know from our own higher education (decades of TV 'snews & talkshow shrinks) that, until the golden moment of his act of murder, the shooter is *ineducable* beyond all demonstration. We know to a crim-certainty that, even if we had slowly & consecutively ground 100 of the punk's rôle-model gang-shooter pals into meatloaf before his eyes & ears, this savage, pointlessly punitive, insanely vindictive, & degradingly brutalizing rite-spectacle would have not *THE SLIGHTEST* deterrent effect. (This unshakable wisdom is the foundation-stone of nonkillable TV 'snews antipathy to capital punishment.)

E3 But, even as life passes from the now-anonymous victim, the blessings of Educability descend in a flash upon our former ineducable idiot: long before the body is cold, whordes of defense lawyers, courtroom-shrinks, & social workers flock to the cause of Uplifting him. And so, the very bleeding-hearts who swore — a nanosecond before the murder — that the gunsels was immune to education, now swear he *CAN* be Educated. By them.

E4 And, of course, being idealist-do-gooders, they won't bill the gov't for a penny. . . . [No Lie: It Won't Be a Penny.]

F From Crim to Bert, or: Better Get Your Murder in While You're Still Young&Attractive

F1 Commit murder & claim insanity or abuse-rage (or maybe just acid indigestion) — and you've got a nontrivial chance at beating the rap, not to mention lucrative celebrityhood.

F2 Question: How did the sanity of a murderer ever become a *legal* issue in the first place? (Do execs abrogate business contracts by claiming temporary insanity?) Irony: the current fashion in criminology is non-vindictiveness. Yet, crim's injecting the question of sanity into a murder trial only makes sense if we wish to avoid vengeance against those who didn't know what they were doing. (I.e., the entire argument is squarely based upon vindictive justice, not upon what will produce less later crime.) Actually, if the sanity issue has any relevance to murder trials, it is: we should be even tougher on nut-murderers than on rational murderers (most of whom are less sure to repeat). And, in today's courts, the insanity-defense is simply a hook to hang jury-sympathy on. If jurors fall in love with defendants (e.g., the Menendez & BobIt cases), then courtroom rent-a-shrinks will provide the mumbojumbo justification for anointing the beloved with an Innocent verdict.

⁸ Anti-death-penalty knee-jerks are prone to fret that the state may err & take an innocent life or so per year. I counter-point to the thousands of innocents very *un*-occasionally killed by nondeterred (or released) criminals. To me, these are also state-committed murders. But that (nonparenthetical) argument presumes deterrence & so would loose force if proof appeared, showing deterrence doesn't work. My support for the death-penalty would thus weaken, but would survive, regardless, on two other grounds: [a] Though it's now commonly (& pejoratively) branded "vengeance", demonstration of a society's interest in ensuring a balance-of-justice is salutary to that society's peace & ethics. [b] Murderers too dumb to learn from the example of others' hangings shouldn't be artificially protected, but are best winnowed out. (Self-fulfilling-prophecy dep't: presuming irrationality merely nourishes it.)

⁹ Similarly, after his wife's murder — apparently by invisible-rambo Martians — "actor" O'Simpson rapidly learned to act. About time. (He's innocent of course. Those silly blood tests are easily explained: all Martians share his DNA. Bet you didn't know that. Try disproving it.)

Well, if we're going to turn murder trials into glamour contests, then let's do it right: hire Casablancas & Eileen Ford as jurors. And start each trial, not with alot of boring swearing-in ceremonies, but with a videotape of the inimitable Bert Parks, gargling *There She Is*. . . .

F3 Solution: Turn the obstruction tables on the greedy lawyers & jury-profilers who sell split-juries to rich-enough murderers. How? Simple: Answer each deliberately-hung jury with an endless succession of budget re-trials, using the dumbest, cheapest slob in the prosecutor's office. E.g., given the evidence in the O.Simpson case, a sub-moron attorney, loafing along at \$1/day, could sleep through his prosecution-presentation and still not lose all 12 jurors. [See *DIO* 6 ¶4 §C5.] So, just keep on trying this unrepentant murderer, interminably.

F4 Thus, in future, whenever a rich killer's mout'pieces narrowly finagle out of a conviction by the deliberately-hung-jury ploy, the judge simply states to the defendant:

F5 The sentence of this first-run trial&error farce is that you shall be taken from here to a place of lawful re-prosecution. There, you shall be hung by the jury until you are dead. And may god have mercy on your wallet.
[See *DIO* 6 ¶4 §§B2&C5.]

G Why Does Ethnic Fairness Outrank Ideological Fairness?

G1 TV 'snews is obsessed with ethnic balance, but not ideological balance. E.g., there is virtually (if not exactly) no representation either in Congress or the Medium for socialists or atheists.

G2 What the US needs isn't forced ethnic-mixing. (Switzerland's peace is based on 4 separate live&let-live cultures.) It needs open, unforced ideological mixing: merging the Chas.Dickens-Eleanor-Roosevelt-style kindness of the left with the question-the-long-range-consequences caution of the right. Instead, the US is getting the naïvete of the left grafted onto the anti-pleasure puritanism and viciousness of the abortion-hating right. Result: leftist-style paternalistic subsidizing of an eternal poverty cycle, while the holier-than-God (§D6) wing of the right acts as that cycle's safety-net by killing off abortion, the only remaining hope for cutting the cycle.

G3 But, look on the bright side: at least the druggeddlers are smiling. (Tobacco, booze, etc: *DIO* 2.1 ¶1 §C2.)

H Select Polish Jokes

H1 During a live call-in radio interview on astrology in San Diego c.1980, I was told with mock solemnity by playful emcee Gabriel Angel (after I'd bluntly slammed a few astrological BSitudes): "That's likely to offend some of our listeners." In the spirit Gabe had established, I replied in my most contrite tones: "Well, I certainly do apologize, to anyone out there whom I have not yet offended. Please be patient, and I'm sure to get around to you."

H2 I'm reminded of the night Gabe&I roasted the astro-nuts, as I note the number of politically-incorrect ethnic-lobby-offending comments in this *Scrawlings* entry. So, to set these blows into diffusing contextual cushioning, let's bring on some Polish¹⁰ jokes — typical and non. (All but the last [§H8] are not original with *DIO*.)

H3 Typical ones: [a] Hear about the Polish abortion clinic? Waiting period's 10 months. [b] And the Polish Airlines crash into a Warsaw cemetary? They've already recovered 8000 bodies.

¹⁰ Perhaps Poles tolerate dumb ethnic jokes because: when your tradition can boast Copernicus, Chopin, M.Curie, Paderewski, & Kowal, you get accustomed to encountering unsubtle symptoms of jealousy.

H4 Better than typical: Why does a Polish doctor smack a newborn baby on the bottom? Chastisement: "Don't you EVER crawl in there again."

H5 My favorite Polish jokes are entirely atypical:

H6 In the 1970s, when there were lines (queues) for everything in commie¹¹ Poland, a seething man — waiting in line for hours, for essential groceries — suddenly snapped: "I can't stand this anymore. I'm going to go shoot the President." The others in the line cheered him on as he took out a pistol & strode off on his mission. An hour passed. Another hour. Then, finally, he returned, and the linemembers of course all gathered around him: "Well? Did you shoot the President?" "No." "Why not?" "There was a line."

H7 Question: What do you call a Polish person who lives in a 1000-room mansion? Answer: Your Holiness.

H8 DR-*DIO* follow-up question: What do you call 1000 persons living in one room? Answer: His Holiness' birth-control pupils.¹²

I Sampling

I1 Shark Repellent: If someone recommends a folk-lore method for how-to-ward-off-shark-attacks, consider that there may be a touch of sample-bias here: true, everyone you talk to who tried it says it worked for him, but — if there have been other parties, for whom the same method failed, then: good luck in interviewing them

I2 Why the World Is Going Crazy: A reasonable explanation of the weird turn US fortunes have taken of late (e.g., burgeoning national debt): no person of normal balance would care enough to go through all the strains (of both sorts) required to run for President, merely in order to get a great mansion & chef (not to mention the glory of joining the immortal ranks of Fillmore, Pierce, Arthur, Ford, Carter, and some movie actor). Presidents also get: a 1/10 chance of being shot to death (Omaha Beach style odds), & a 1/5 chance of dying in the harness from all causes. (If only an odd sort would want to be President, then don't be surprised at what Presidents do: ¶8 fnn 4&8.)

I3 Head-Filters: TV 'snews is filtered by the prejudices of whatever talking head is earnestly ladelling it to you, and the networks' censorship of material is similar to the election filter (see Plunkitt at ¶8 §B13 & *DIO* 2.3 ¶6 fn 23): only a politically safe (emasculated) anchor will ever get near a network national desk; his output doesn't need to be censor-filtered, since the very process that got him to his podium has already done all required screening. This journal, *DIO*, is also filtered, not only in the obvious ways, but also: it would not exist if I did not have an essential belief in the fairness of history, in the possibility (probability would be too strong a word) that if enough decent persons will try to get truth to the public, a misguided record can be set straight. In this implicit belief (little supported by the bare facts of the very historical record I wish to render more accurate!), I may be no less detached from reality than the Presidents just criticized above. *DIO* is in large part an experiment upon, an exploration of, that very point. I look forward to observing and experiencing the outcome.

¹¹ Nowadays, even the most demented lefties don't have much kind to say about the USSR anymore, so let's break the monotony by noticing something that drew no US Medium analysis at the time. As part of the usual drumbeat of one-sided propaganda damning Communism, the Medium noted that, as bad off as Poland was in daily meat consumption/capita, the citizens of the pathetic USSR ate even less meat. For contrast: can one imagine a capitalist empire permitting for a moment a situation in which a vassal state was eating better than the enslaver? It is not a blanket apology for Red Russia to suggest that this peculiar Poland-USSR meat-asymmetry hints that some top Commies, even near the end, still actually clung to belief in Communism as a mission, not an exploitation-scheme.

¹² Just as it took until the 19th century for the Church to take heliocentricity off its *Index of Prohibited Books* (see also at fn 3), so we may have to wait until the 22nd century before the Catholic cult condones a birth control method other than rhythm, aka Roman Roulette. (An old joke that is deadly serious: What do you call those who use rhythm? Parents.) Here's a calculation which (numerate) abortion-haters should try for themselves, to experience electric reality-shock: assuming c.20 years of fertility in an average marriage, even a birth-control method which is 95% effective/month will nonetheless produce over 10 children.

I4 The Ultimate Sampling Bias: Suppose that staying alive is irrational. Then all our advice (on work, heroism, suicide, or anything else) will be that of irrational folks . . .

J Tickling Orwell's Shade: Some Races More Equal Than Others?

J1 On 1994/10/28, the Medium¹³ simultaneously announced: [a] the University of Maryland's outrage at a Maryland federal court's strike-down of UMD's B.Banneker black-preference scholarship, and [b] O Simpson attorney R.Shapiro's outrage at prosecutors' alleged nonequal treatment of black potential jurors.

J2 Naturally, TV 'snews treated both these positions straightfacedly or sympathetically (& why not, since both are perfectly-orthodox coin of the TV 'snews realm) — without (as always) ever noting that they are also perfectly contradictory: [a] we must treat blacks differently, and [b] we must not treat blacks differently. As Mencken said in his *On Being an American*¹⁴ (a generation before 1984 coined the term “doublethink”): the only way a person of intelligence can tolerate watching US politics is to relax&enjoy the nation's pompous leadership as a glorious and immensely entertaining three-branch circus.

K Shorts

K1 The shrinking of the number of newspapers & other forums has downsides already noted at *DIO* 2.1 ¶1 fn 38. And the similar attrition in the number of independent nations (as the world has coagulated into a few big blocs) also has obvious negatives for freedom's possibilities. But there is an important positive: as the number of potential inter-nation confrontation-permutations gets smaller, so do the chances of nuclear war.

K2 Years ago (c.1980), DR was involved in a public debate with a prominent Creationist — one of whose surprise tactics was his denial of the existence of vestiges (e.g., the human tailbone). So I asked: “what about the male nipple”? — which drew no coherent response. When I mentioned this incident later to a very bright friend (who prefers anonymity, in a politically-correct age), he responded: “And the female brain.” (This, in the presence of both our extremely intelligent wives, who appeared to take it in the intended jocular spirit.) So now, whenever I get pseudo-sexist with my wife, I just tell her not to worry her pretty little vestige. . . . And she, in the same vein, says that if our friend really *means* there are differences between the male & female mind, she'll scratch his eyes out.

K3 History is to DR what religion is to others. DR grew up with the legends of Archimedes, Aristarchos, Eratosthenes, Hipparchos, & Ptolemy. To be one of those few fortunate scholars, who has solved and revealed glimmers of the truth of their work, is to DR what entering the Ark of the Covenant would be to a Jew or Christian. (See fn 4.)

K4 The great 19th century pioneers of music each introduced or perfected an element that separates the best music from the old soporifics¹⁵ of the 18th century: Beethoven, drama; Berlioz, mystery; Wagner, fire.

K5 How is it that today's Leftists worry (justly) that school prayer (Conservatives' longed-for cure-all grail) will be divisive (fn 25), while remaining (in the fervor of their own crusade) blind to Affirmative-Action's similar effect? And vice-versa for rightists.

¹³ Formerly: the Media. (See *DIO* 2.1 ¶1 fn 38.)

¹⁴ *Prejudices* ed. J.Farrell (ppbk, NYC 1958 pp.89-125). Mencken contends (p.125) that one can't find better entertainment than the US political scene: “this Eden of clowns”. (Mencken erred primarily in his computation of the per-capita expense of the gov't show: it was trifling in his day, but the cost then has turned out to be merely the bill for laying the foundations of the modern-gov't looting-operation, which now siphons off roughly half of the average worker's already-inadequate wages.)

¹⁵ Haydn even put a joke tutti-fortissimo into the Andante of his 94th (“Surprise”) Symphony — just to wake up those listeners who'd dozed off after getting the general idea (of Haydn's intentions) from the previous 93. . . .

K6 Yet-unfamiliar phrase, which you'll be hearing aplenty shortly (as at §R4, *DIO* 1.2 fn 181, & *DIO* 2.1 ¶1 §K1): “The Third Millennium.” Question: will 2002 April 3 be written (as it ought to be) 2/4/3 ? Or will USers read that as Feb 4, 2003 — or, will Europeans read it as April 2, 2003. Will others make it to be March 4, 2002? Answer: now that the last two (indeed, three!) digits of the year number will not exceed 31 (which has been true for most of the lives of most of us), it is time for a universally-agreed-upon dating convention. The best is the first-cited above (2/4/3 = 2002 Apr 3), because the ten-power order of the digits in the units (year, month, day) is the same as the significance-order of the units themselves: namely, descending.

K7 Why can't the US seriously lower net taxes? Simple. All US politicians must raise vast sums to get elected. These pols' benefactors expect a return of manyfold on their investment. There's only one place they're going to find that kind of money. And now you know why your tax form is called a “return”. So, next time you hear that Joe Friendly is spending x dollars a head to get elected in your district, figure [a] just to break even, he's got to get at least that much back by funneling your tax money to his funders (via contracts or whatever); [b] he could really be spending at least $2x$, and [c] $10x$ may be what it will actually cost you in tax increases to pay off the lobbies that kicked in to elect him.

K8 Where one finds the public protected by censorship, one will always find that public being led along a path which can't be defended in open discourse by its insecure navigators. (See §R6.)

K9 A few politically-incorrect reflections on the alleged brilliance of ancient Babylonian astronomy. We tend to forget that virtually all dated Babylonian math-astronomy ephemerides are from the Seleukid period. But, at this time, Babylon's ruling class was Greek. King Seleukos himself was a former Greek general. And the epoch of Seleukid astronomy was 312 BC, the date of Seleukos' restoration by another former Greek general, Ptolemy I, who ruled the Egyptian empire from Alexandria. Question: how many Normans spoke Saxon, even a century after the Norman Conquest? We should understand that, when we examine Babylonian cuneiform texts of the Seleukid period, we are analysing the literature of an ethnic underclass whose political powerlessness made it particularly vulnerable to the superstitious opium of astrologers. (And Babylonian “astronomy” was in truth astrology: *DIO* 1.2 §E3.)¹⁶ To expect high astronomy from such sources is, at best, naïve. (See *DIO* 1.2 fn 73.)

K10 One of the blessings of academe is that one not uncommonly encounters there persons who are both intelligent and decently principled: ideally of the B.Russell-A.Einstein type. (In the US business world, the pattern is instead predominantly: the smart folk exploit the nice folk. Which is why current commercialization of academe is an ominous trend, forcing young scholars into careerism to the detriment of truthseeking: see above at *Competence Held Hostage* #2.) Despite the numerous exceptions to this ideal, it is a cause for gratitude that so many exemplars do exist, and that their strivings continue to uplift our lives — by both their example and their creativity.

K11 Capitalists delight at maintaining a large pool of unemployed, in order to keep job-insecure workers' bargaining powers low, thus slashing that accursed overhead called: wages. That's why, the more capitalist a country gets, the more people end up on welfare — producing the irony that: the very capitalist nations that sneer at socialist “welfare states” have more people permanently on welfare than do the socialist countries. And that's without even including congressmen.

K12 Since I have so often been pleasantly surprised¹⁷ at unpredicted future happenings, I will cite for contrast a case where prediction actually worked out: the 1990s have seen numerous CDs of about 80 minutes, though in the 1980s, it was widely understood that the limit was 75^m. So, where was the 80^m CD predicted (on the basis of microscopic study of

¹⁶ Spelling correction there: for Rochbert read Rochberg. (Amusingly ironic, considering DR's cracks at Graßhoff in *DIO* 1.2 fn 149.) *DIO*'s apologies to Chessie R.

¹⁷ See, e.g., *DIO* 1.1 ¶3 §C.

CD surfaces), as early as 1986? — including the specific prediction that half of Mahler's symphonies would eventually go to one-CD packaging. See the Maryland Library Assn journal (*Crab 16.1* p.11; 1986 Sept). (It should be gratefully stated that DR's predictions only saw print because of the interest of adventurous then-Editor Steve Wooldridge.)

K13 As we know from Archimedes' *Sand-Reckoner*, Aristarchos was the first to propose a vast universe.¹⁸ This proposal was (given stellar parallax's invisibility) *directly due to his heliocentrism* (a connection unappreciated by Muffiosi & other History-of-science anti-whiggists) — a universe thousands of times wider than the geocentrists'. Since such scales render man a trifle with respect to the universe's size, astronomy has tended to dethrone him and to deflate his societal & religious conceits. Many older writers (e.g., Twain in *Letters to the Earth*) have considered this effect — but it is most intensely known to youngsters upon first encountering astronomy. However, there is an overlooked analogy: the equally-deflating temporal briefness of our lives, with respect to the universe's time-span. The chimera of Heaven is popular not merely due to religious anthropomorphism & a social sense of justice. It also expresses our natural reluctance (& perhaps mere inability to comprehend remote death — or even the familiar experience of sleep) to face the awesome, humbling reality that, just as the universe got along (without our perceiving it) for an infinite time before we existed, it will go on without us, after we are gone. Forever. Recalling fn 4: how vanishingly small are the odds that your & my lifetimes' almost infinitesimally tiny spans (in the context of the age of the universe) should happen to include the present? (Recall also the *sine-qua-non* consideration at §D5.)

K14 In a society whose leadership is so obsessed with bandaid-suppressing the very disharmony that its programmed overpopulation (& resultant poverty & unemployment) engenders, one marvels at the frequency with which one encounters mainstream-Medium reports of female pride, black pride, Latino pride, homosexual pride. (Never male pride, white pride, het pride. . . .) According to current (debatable) Medium orthodoxy, membership in even the last of these classes is something one is born with. OK, so: why encourage pride in something *unearned*? (See fnn 41&42.) Especially when such pride is just racism (or sexism) under an assumed name. And if such a pride-group votes as a bloc, how can it call others racist or divisive when they too lump members of that group together? If a group acts as a unit, it invites the reaction of those who call a bloc a bloc.

K15 I will continue (as at §L2) to criticize capitalist-owned TV 'snews for never even hinting that a major cause of the crime wave it ritualistically bemoans is: capitalism. (Additionally, crime ensures nightly street-gore video, which juices TV 'snews ratings, thus boosting ad revenues.) But, on the other side of the ledger, one must in fairness note that capitalism has been the dominant economic religion during the wonderful explosion of computers in the last decade, a cultural event as crucial as Gutenberg's printing press.

K16 Likewise, while I would prefer the US to have a freer, more citizen-sensitive gov't such as exists in N.Europe, it should be noted that the US virtually leads the world in success at lowering tobacco addiction. By contrast, Denmark (the freest of nations) is Europe's chief retard in this connection. Conversely, Denmark is also one of the nations least afflicted by hard-drug-related crime, which is worse in the US now (though newly-capitalist Russia is gaining on the leader) than anywhere in history. (Partly due to the degradation of the lower classes, inevitably caused by cost-cutting industrialists: §K11.) These connections are hard to miss. They suggest several thoughts and questions that relate to longterm hopes' realistic chances of eventual success:

- [a] Can a genuine liberal democracy ever defeat the tobacco plague?
- [b] Can a capitalist nation defeat the hard-drug crime-plague?
- [c] Are many (any?) major nations clearly winning both battles at once?
- [d] If not, does this seeming contradiction tell us something?

¹⁸ Partly based on Aristarchos' half-Moon experiment (*DIO 1.1* ¶7 §C1). DR finds (AAS 1994/11/12) that night-estimates of half-Moon elongation are biased high. But daylight observations (more historically likely, anyway) work better, due to the Pickering Effect: daylight-estimates of half-Moon elongation are lower than night ones.

K17 Instead of eternal GOP-vs-Dem sham arguing over whether or not to increase the military budget, why doesn't the US just take over the world (officially)¹⁹ and end all need for major military weaponry?²⁰ Answer: no lasting²¹ institution genuinely desires accomplishment of the object it claims to pursue, since that event would end its profits. Why should the money-flush Pentagon be any different?

L Crime Thoughts

L1 In recent US history, crime has been highest in areas with the most immigration. Whether border immigration or vaginal immigration: if it's out of control, you get crime.

L2 As noted at §K15, another key cause of crime is never mentioned on TV 'snews, namely: capitalism. While indeed stimulating wealth & technical progress, capitalism simultaneously produces lots of poor citizens: §K11. (See §L1: flooding the labor pool, with both sorts of immigrants, lowers wage-earners' bargaining powers. Capitalists then condemn the poor's perverse immorality in insisting on stealing to stay alive — instead of quietly starving to death like they should.) We can be sure there's no connection between that piece of censorship and the fact that all TV 'snews owners are very rich capitalists.

L3 Whom do we depend upon to stop crime? Judges, cops, pols, parole officers, prison personnel & boards, lawyers, shrinks & other social jerkers, etc. Yet, the more they cast their incantations, the worse crime gets. Another question: who's (legally) making the bigbucks out of the US crime epidemic? Answer: same cast of characters. Small world.

L4 Which smoothly segues us to . . .

M Early Earth-Size Sizeups

M1 In *DIO 2.3* ¶8 §A7, DR noted that ancient use of the dip method of measuring the Earth's circumference C would've led to a result c.6/5 high (due to atmospheric refraction): about 259,200 stades. But that suggestion presumes the experiment is done at low altitude, where horizontal lightray-curvature is 1/6 of Earth-curvature. If the experiment were instead done from a high seaside mountain, the ray's mean curvature would be weaker, thus the result would be a little nearer reality; and the "Eratosthenes" value (252,000 stades, c.230 BC) is so. [See *DIO 6* ¶1 fn 47.]

M2 Reconstructing an earlier era's Earth-size estimate: if Eratosthenes' predecessor Dikaearchos (c.300 BC) used seaside Mt.Pelion and measured 70' of dip (about right), then his slight overestimate of Pelion's height h would've led him to compute Earth-circumference C , by the equation²² $C = 4\pi h / (\theta^2)$ (where h = the mt.hgt and θ = dip in radians), as $C = 300,000$ stades, a value cited by Archimedes in his *Sand-Reckoner* and long ascribed²³ to Dikaearchos.

¹⁹ I.e., in contrast to GATT.

²⁰ After WW2, both Douglas MacArthur and Bertrand Russell (idealists from opposite ends of the political spectrum) urged [also Churchill in '48] that Allied world-takeover be carried out promptly, while the US still had a nuclear monopoly. Instead, Practical Realists made the decisions, and both US & USSR went into huge arms-race-debt, thus: a growing poverty class, drug-crime cyclicality; & so unkillable mafia influence on their gov'ts.

²¹ See *DIO 1.2* §C2.

²² The familiar math-proof of this equation involves deletion of a tiny term (h^2), a step justified by the minuscule ratio of h to the Earth's radius R . Note that when Pliny 2.162 cites Dikaearchos' measure of Mt.Pelion's height as $h = 1250$ paces (6250 Roman feet, Pliny 2.84) or 10 stades, or 1 modern nautical mile (1852 m), Pliny states that this is minuscule compared to the Earth's size. (See also Strabo 2.5.5.) Is this statement a fragment or glimmer of the above-cited math proof's deletion-step? (This deletion occurs between eqs.3&4 in DR's 1979 Feb paper on the double-sunset method: *Amer J Physics* 47.2:126-128.)

²³ At least since H.Berger: see J.Thomson *History of Ancient Geography* Cambridge Univ 1948 p.154.

N The Jackson-Hamilton Bill to Wipe Out Racial Friction

N1 The President and the First Gentleman have concocted a new medical plan, and he says he intends to reform welfare. All right, if the FG intends to spend money in the “smart” way he says he prefers, then we can improve not only US medical & welfare situations but — simultaneously — another pet FG passion: race relations.

N2 A simple bill will do the trick: gov’t medical and welfare plans must henceforth fund Michael-Jackson-style whitification process for all who desire to escape race-prejudice, on which many angry blacks have come to blame all their failures. (And, in case medicine doesn’t help an applicant, we can always have the IRS bleed him white.) Likewise, all caucasians who wish to become Persons-of-Color (in order to qualify for the Affirmative Action that so enrages certain nonparticipants, many of whom blame it for all their failures) will be funded for free entrance into the Geo.Hamilton Darkening Clinic.

N3 Upshot of the Jackson-Hamilton Bill: nobody will be a *born-helpless* Victim of racism anymore, thus: neither redneck-amateurs nor snivel-rites pros will have anything left to whine about — and we can FINALLY drop the rich²⁴ establishment’s diversionary Race Thing, and move on to intelligent issues, such as the increasingly gross fiscal divide between the US’ wealthy exploiters and their so-*easily*-manipulated and balkanized²⁵ poor.

O The Celestial Half Ellipse and Your Eyes’ Bullseyes

Two beautiful physics-phenomena, which many of us suppose require elaborate, laborious production in a college lab situation, are in fact easily visible to all, in the simplest everyday circumstances. (However, neither of the below items [§§O1&O2] appear in any textbook I’ve encountered.) These are: [a] the ellipse, and [b] the Poisson Spot.

O1 The most commonly observed ellipse is the Moon’s terminator. (The “terminator” is the boundary between the sunlit & dark part of the Moon — where the Sun would be rising or setting if one were physically standing there on the Moon.)²⁶ Actually, the terminator is a half-ellipse (with special cases occurring at the half Moon or eclipses).

O2 The “Poisson Spot” is a dramatic proof of the wave nature of light (not established until Thos. Young²⁷ & A.Fresnel, in the early 19th century); the Spot is visible to anyone who will take the trifling trouble to peer at a bright light (the outdoor sky or an indoor lamp will do) through a very small orifice which is held up virtually flush against the eye. (Most convenient: the flexible space in the main inner fold of the index finger when it is squeezed around the thumb’s tip, until the space for light’s passage is nearly as tiny as possible.) As the size of the orifice is pinched to near-vanishment, the dozens of tiny round spots that appear [“floaters”: J.Walker *Sci Am* 246.4:150] are all Poisson Spots — exhibiting the telltale proof by which Fresnel vanquished Poisson’s intelligent objection to the wave

²⁴ Nothing new here: in the 1860s, Wall Street lawyer & intellectual Geo. Templeton Strong (whose son was the firstborn US composer of durable serious music: 1856) was aghast in righteous condemnation of NYC’s Irish anti-black rioting (in which the next-latest NYC cheap-labor wave got enraged at the very-latest). After all, no new scabs were being brought in to flood the Wall Street lawyer market and thus endanger *his* job.

²⁵ The disarray of the left today has been well described as Balkanization. The “ethnic politics” perfected by Michael Novak & Jack Kennedy has not only been poisonously divisive (§§K5, K14, & P4) to the US, but its promoters have nervily covered themselves by accusing critics of: divisiveness.

²⁶ Astronomical conventions: the circular part of the Moon’s image is the “limb”, while the elliptical part is the “terminator”. At the half-Moon (see *DIO* 1.1 ¶7 fn 6), the terminator appears as a straight line — which is simply an ellipse with eccentricity $e = 1$. (For solar or lunar eclipses, e is about null.)

²⁷ This Dr. Thos. Young is the same Thos. Young who established the first step in the decipherment of the Rosetta Stone, which unlocked modern access to ancient Egyptian hieroglyphic inscriptions. Such wondrous versatility should not go unremarked. Nor should the fact that (despite prominent publication: *PhilTrans*) Young was long denied acceptance or credit for his optical discoveries, due to the shortsighted politically-correct Os of his day (most prominently Lord Brougham) — whose memory is now notorious & repugnant, and will be so to the end of time.

theory: there *is* a bright spot²⁸ in the middle of what ought to be a solid shadow if light were (as the Newton-Laplace-Poisson school had held)²⁹ waveless corpuscles. Thus, the proof that light is wavelike had literally been before every non-blind human’s eyes, throughout history — but simply had not been understood previous to Young-Fresnel. (See at *DIO* 1.1 ¶7 §F4 for similarly remarkable eternal availability of heliocentricity’s proof.)

P Germs

P1 Rehab is the alchemy of our times.

P2 The GOP creates³⁰ brutal poverty. The Dems subsidize it.³¹

P3 Life seems short only when it gets long.

P4 Divisive ethnic politics, a 1960s high for the Left, has boomeranged in the 1990s.³²

P5 The best facelift is cutfree&costfree, namely: a genuine smile.

Q OIJBAM & The Law

Q1 Before the homosexual lobby ate very-former Miss America contestant Anita Bryant, she starred in a much-aired, (obviously-)unconsciously-campy Florida orangejuice TV ad (this was years before the equally liberal Rush Limbaugh took up the orangejuice banner), enticing fashionconscious homefolks to start slurping her product at lunch & dinner, not just at breakfast. This promotion so perfectly typified the expand-your-market approach to product-hustling that our family has ever since classified all such schemes under the acronym “OIJBAM”, in honor of Anita’s immortal pitch, which was (verbatim): “Orangejuice isn’t just for breakfast anymore.”

Q2 Some less fruity OIJBAM plans: [a] Hooking Third World countries on tobacco. [b] Bo Jackson’s salivating genius-agent computing how lucrative it would be for a steroid-jock to play football as well as baseball. [c] The Medium & other promoters accustomizing the public to “singing” (E.Merman or rock)³³ that’s as attractive as glass-scratching, because: resting vocal cords for a few days between gigs isn’t as profitable as nightly performances. [d] Recycling criminals back onto the streets so rapidly that lawyers & judges can draw municipal salaries from defending-prosecuting-sentencing each precious criminal as frequently as possible. Perhaps the legal profession’s ultimate vision will yet come to pass: fiscal exploitation of the same crook not just in a morning trial but in 3 court hearings on the same day. And then it’ll be time to Rush a former juice-hustler out of Bimbaugh-Limbo to film a TV spot for the Trial Lawyers Ass’n: “Criminals aren’t just for breakfast anymore.”

²⁸ A close look at each well-defined bright spot will show that it is actually the center of a bullseye diffraction pattern. (This somewhat resembles but is not identical to the Airy disk diffraction pattern cited at *DIO* 2.3 ¶9 fn 51.)

²⁹ The story goes that, when Fresnel announced that the wave theory of light was proven by wave interference, Poisson objected before the French Academy that this was absurd because (as Poisson, a superlative mathematician, first realized & pointed out to Fresnel), if this were true, then coherent light falling upon a circular opaque object would produce a bright spot in the middle of the circular shadow! — which was patently nonsensical. Fresnel’s terse reply was in effect: well, M.Poisson, why don’t you try it? Sure enough, the bright spot was there. And, in delightful recognition of Poisson’s brilliance and priority in deducing this spectacular proof of his own preferred theory’s falsity, the phenomenon has since always been justly known as Poisson’s Spot.

³⁰ See §K11.

³¹ See *DIO* 2.3 ¶6 §G. The Democratic Party is joined (in its approach) by the Church and the Rainbow Coalition. All 3 institutions ensure their eternal fungal durability by eternally failing to shrink the poverty class (their mainstay constituency), systematically opting *strictly* for poverty-fighting approaches which are pre-guaranteed not to work. (See *DIO* 1.2 §C2.)

³² Question that may provide a clue to the fate of the Left (and perhaps the national corporate rulership’s sculpting & selective pruning of the Left’s remains): why do we see a hundred Jesse Jackson interviews for every one of Gore Vidal or Katha Pollitt [who were once (2015 edit)] the left’s brightest idea-people? (Answer: *DIO* 2.3 ¶6 fn 23.)

³³ Littleknown *DIO* pseudofact of etymology. Modern pop is called Rock because: the performers look, act, & sound like they just crawled out from under one.

R The Race Issue: Now, Which Side Is Ill With Prejudice & Hate?

Some partly tentative comments and questions on race theory & policy in the US:

R1 Our 535 congressmen are comprised almost uniformly of leeches who lie, steal, cheat, take bribes (“contributions”), and tax-suck us as near-death as possible (just short of golden-goose-snuffing): *DIO 2.3* ¶6 fn 22. And they do nothing except at the behest & with the permission of the rich & powerful. So why do these same folk suddenly go misty-eyed-mushy-idealist over bills on affirmative action, bussing, welfare, AFDC? — which cater to the poorest, least bribe-affording segment of the population. (One suggestion: see §R8 & *DIO 2.1* ¶1 §C2, fn 5, & fn 9. Another theory: aid is no more than 1 cent/month above what’s needed to buy off armed revolt in poverty areas. Looniest right-wing explanation: leftists run US policy.)

R2 Today, no one³⁴ who dissents from political correctness on race can survive in office or prominence, in either the US gov’t or its network-holy-trinity (TV ’snews, aka The Medium): §R6. In the midst of this ongoing purge, how many Liberals (besides Nat Hentoff) have ever spoken up about the simple question of free speech? Instead, what we get is hand-wringing (about dreaded heresy’s Implications) & fear of Hate-Speech (most of which is now actually coming from blacks). And, no matter how temperate and well-intended, even the most unprejudiced, openminded suggestions of the possibility of racial mean-IQ-inequality will produce some degree of hysterical-censorial smearing of the author as a hate-goader. Yet, the fact is that *every* era has a view that it wants to exempt from free-speech protections: heliocentrism in the 3rd century BC & later in the Christian Dark Ages, Darwinism in the 19th & early 20th centuries, atheistic communism for many recent decades, and now race-IQ theories. (A few years hence, the top heresy will probably be something else, perhaps communism again; or maybe anti-racism, as of yore in the Old South.) Each era thinks the previous one unenlightened — but in its smug conceit fails to see the common thread: in every case, the exception is justified by branding the banned theory *corrupting to morals & social peace*. (Perhaps it is. But that is beside the point: “the truth and beneficence of an idea are two separate issues.”)³⁵ So, does “free speech” really mean: we allow free speech for all views — except those we don’t allow it for?

R3 The standard orthodox newsbite for encouraging the eternal continuation of politically-racist affirmative-action schemes is: a single success-story case of a Liberal program that produced a single wonderful person. Question: does this propaganda-slant not bear an embarrassing resemblance to the standard Conservative ploy of pointing to a single success-story case of a brilliant, hardworking individual triumphing over poverty in a laissez-faire capitalist world? Common-sense common-lesson: it is unwise to found public policy (necessarily aimed at huge aggregates) on statistical exceptions.³⁶

R4 Whites-Ain’t-So-Smart-Either (Part 1): In response to *DIO 1.1* (¶2 §D2) promotion of drastic cuts in poverty-area birthrates, some readers said that this would require a police state, to enforce hypothetical birthrate guidelines. DR comments: [i] Where does it say in the Constitution (or the Bible) that citizens can have as many children as they want, regardless of their ability to support them? This is simply a modernly made-up pseudo-Commandment, with no justification in logic or in historical results. [ii] Evidently, critics of radical demography do not regard the current situation as a police state: middle class citizens being *forced* — at the point of a taxcollector gun — to support other couples’ children, and, secondarily, being forced (at same gunpoint) to support the drug cartel that lives like a mold, off the resulting social-death Hades. What does it say about the US gov’t’s vaunted white intelligence that: [a] this kook poverty-cure was forced upon the US public for decades, without having been pre-tested successfully in any of the 50 states,

³⁴ Except Jesse “Hymietown” Jackson, whose survival of a grossly anti-Jewish statement is simply a higher form of special-exemption affirmative action.

³⁵ See *DIO 1.1* ¶7 §G4.

³⁶ See *DIO 1.1* ¶2 fn 5.

and [b] it took 30 years for (some of) the gov’t to (begin to) realize that the cure isn’t going to work? Indeed, even now, a few light-at-the-end-of-the-tunnel media diehards still keep dishing out propaganda which begs for yet-further no-endtime-certain patience with their cruel Noble Experiment,³⁷ which has succeeded primarily in blighting every major US city with sprawling, degraded slums — the cleaning up of which will take decades.

R5 The US’ previous Noble Experiment, the Prohibition of Alcohol, exhibits two parallels (with §R4):

[a] Slowness to face failure. (Prohibition lingered on from 1920 to 1933: 13 years. Even so, that’s less than half of the term of persistence of the Dems’ Great-Society folly.)

[b] The primary ultimate beneficiary of both these Experiments has been organized crime. Governmental and otherwise.

R6 The nation’s Political-Correctness police continue trying to suppress discussion and to eliminate all those they disagree with (e.g., E.Butts, H.Cosell, J.Snyder, A.Rooney, A. Campanis — none of them defended by ACLU, which is too busy accepting drug money & fretting about tobacco-ad-free-speech), in order to make public figures not just mostly but entirely³⁸ pure of mind. (Reminiscent of HUAC or 1984’s O’Brien.) One should keep ever in memory the wise observation of Ben Franklin on churches: any religion which requires establishment protection must be a logically-feeble one. (See here at §K8.)

R7 The same PC-police are ever on the paranoid alert for “code-words” emanating from anyone suspected of heresy. Unasked question: why are people *using* code-words at all? Answer: because of palpable fear that certain explicit utterances will cause job-loss or worse. Such power-structure-embedded terror is inconsistent with: [a] the US’s image of itself as a free country, and [b] the image of certain groups as powerless victims.

R8 Why do blacks hold more US political offices than women (see *DIO 2.3* ¶6 §D), even though women far outnumber blacks? Such thought-experiments prove the obvious: blacks are not politically prominent in the US because of gov’t concern for justice, or women would be in a far better situation than they are. (And black families are poorer than most, so black wealth’s pull with Congress isn’t the answer, either.) Which leaves us a mystery: why, then, are blacks so politically visible? (Speculative suggestions: §R1.)

R9 Whites-Ain’t-So-Smart-Either (Part 2): Civil Rights started a generation ago as *the* bright focus and hope for social justice, and was understandably seen as such by most of us. The uniform expectation was that, once blacks were given a fair chance, their equal mental attributes would, with reasonable promptness,³⁹ become so evident that conservatives would finally be forced to crawl away in shame at their longstanding error. Instead, civil-rights bogged down & ultimately degenerated into a 30 year exercise in unfalsifiability and alibi-artistry. (Recalling unfalsifiability’s better-perceived pioneers: Astrologers since Ptolemy — 2 millennia ago — have expected proof of their superstition finally to appear. Any day now. The 1882-founded Society for Psychical Research was equally confident that vindication for ESP was right around the corner. And UFOlogists of the 1950s were just as sure that their dream would come true imminently. So were McCarthyists after the Hiss case, when they were certain that hundreds of reds would be flushed out of the US gov’t; yet, not one other suspect was ever convicted.)

R10 Whites-Ain’t-So-Smart-Either (Part 3): The ensuing permanent race-polarization disaster has destroyed: [a] the New Deal, [b] the dream of a socialist-egalitarian US, and [c] the entire left wing here. How many leftists possess humility and lack prejudice⁴⁰ (the

³⁷ See *DIO 2.1* ¶1 fn 19 & §H2.

³⁸ Some years ago (1970s), the public school in the Pimlico area of Baltimore had a single teacher who was deemed offensively overpink. (Even his name was: Rose.) He was finally hounded out of his job. Question: what sort of nation trembles when a school’s teaching staff is merely 99% non-commie — unable to feel safe until that staff is made 100.000% orthodox?

³⁹ This point is driven home to devastating effect in the thought-experiment at p.136 of Charles Murray’s *Losing Ground* NYC 1984.

⁴⁰ In the currently fashionable inversion-lexicon of the politically-correct, “unprejudiced” = one who believes precisely what he is told by the Medium, and will not for a moment reconsider his position in such matters, being

very prejudice which they freely project onto rightists) sufficiently to step back, from the shambles of their long experiment in human transformation (§P1), and ask:

[a] Is it possible that, indeed, blacks are (on average)⁴¹ a trifle lacking mentally (perhaps in either IQ or providence) — even though rednecks say so? (Of course, rednecks⁴² ignore or alibi stats showing Orientals & Jews are distinctly smarter than WASPs.)

[b] Should a society continue on a prejudiced (prejudged) path which *rigidly* assumes⁴³ otherwise (and attempts to destroy those who disagree: §R6)? Key question that should have been carefully thought out 30⁷ ago: What if the idealists are wrong about their policies' implicit assumption of precise mean racial equality? — if so, then where are these policies going to take us? Perhaps the at-the-time-unsuspected correct answer to this question was: said policies will take us precisely where we now are in 1994 — pointless⁴⁴ mass-poverty cycles of perpetual frustration & failure in US inner cities.

S Masochistic Behaviorism: The Third Pigeon

S1 Dropping a food-reward into the cage of pigeon who has access to a lever has been a standard testing technique, enabling modern behaviorists to advance the science of psychology. If one rewards a pigeon (“positive reinforcement”) for pulling a lever, he will learn the connection and is called: a Conditioned pigeon.

S2 But, if a random reward-system is established, some lever-pulling pigeons will nonetheless interpret the situation as correlative. We may perhaps call this: the Religious pigeon. (See *DIO 2.3* ¶6 §C.)

S3 Finally, there is the remarkable ongoing national experiment (*DIO 2.3* ¶6 §G) in which, every time the pigeon pulls his lever, he gets punished (“negative reinforcement”) — but he keeps right on pulling it, anyway. In the US, we call this pigeon: the Voter.

certain that the mean intelligence (among numerous biological factors — many of which exhibit known variations) of all races is precisely equal: a Darwinian-miracle dead-heat. (Without exception, college presidents will swear [with S. Jay Gould] that this is [beyond-question] — meanwhile scorning other fundamentalists for not accepting Darwin.)

⁴¹ It goes without saying that one must accent the word *average*. Given that numerous individual whites (e.g., Muffios) & Orientals are dim, while plenty of blacks are brilliant, it is stupid & wrong (and offensive) to judge any individual's intelligence by group skin color or gender or any other nonmental index. *Even if it be true* that there is a mass-statistical-correlation of that index to IQ, the point is irrelevant to a particular person if that individual is an achiever. (Analogously, see *DIO 1.1* ¶2 fn 5.) Indeed, the injustice of applying mass-stats to individuals is precisely why DR opposes Affirmative Action. Incidentally, even aside from black intellectuals, I have 2 favorite little-known black-smarts references to pass along: [a] Butterfly McQueen (whose filmic portrayal of Prissy in *Gone With the Wind* so enrages Liberals) is a Lifetime Member of the Freedom From Religion Foundation. (This information due to Barbara Rawlins.) [b] Jackie Robinson (whom I am lucky enough to have seen in action at Ebbets Field) was such an original that his intelligence had to be specifically banned by a special rule; he was the player who thought of the now-outlawed ploy in which a runner intentionally kicks a sure-double-play grounder, accepting 1 out instead of 2. [Note added 1994/12: The Cabinet officer I most admired was the courageously honest Jocelyn Elders.]

⁴² Due to his skepticism of US race-orthodoxy (a skepticism science encourages in less volatile areas), DR sometimes facetiously calls himself the world's only redneck-leftist. But the pose is undone by the fact that realization of the mediocrity of the genes of one's own group is not classic redneckism — nor is agnostic uncertainty. DR (of mere UK origins) notes: while black mean IQ may perhaps be below whites', Orientals' mean IQ is very likely higher — so why would anyone be proud of white skin? (Race-pride is as ridiculous and sometimes as dangerous as any other group-pride: §K14. Historically, only nationalism has proven more lethal.) [Note added 1994/12: For a fresh-viewpoint, nondogmatic article skeptical of Jensen-Murray, see B.Rensberger *Wash Post* 1994/11/16 pp.H1&6.]

⁴³ Again, the key question here isn't whether races' mean IQs are equal, but rather: why found decades of divisive public policy upon the chiseled-in-stone presumption-certain that they are equal? (See *DIO 2.1* ¶1 fn 19.)

⁴⁴ At this juncture, I don't understand what is the purpose of continuing the affirmative-action Noble Experiment. If the intent is to stamp out poverty, that can be far more painlessly accomplished in the race-blind manner cited at §R4. Why instead decree that a laborious, tedious, expensive, race-preferential, divisive, so-far-ineffectual, & still-unproven mass-rehab social-experiment is the sole permissible option? (I.e., why insist on fighting poverty *strictly the hard way*? — additionally risking possibly carrying on forever a hopeless, pointless, counter-natural-selection fight against genetic limits?) Unless there is an unstated, strangely racist requirement, demanding that, regardless of a long track-record of (mean) difficulty-in-coping (whatever the cause — cultural, providential, or IQ): a large fraction of the US positively must remain black. (Environmentalists — mostly leftwing — object to keeping dolphins in tanks or bears in zoos, yet fail to see that subsidizing ethnic ghettos is just as artificial-unnatural.)

T So, Who's Speculating?

T1 The Ivy League royalty, which *DIO* calls the “Muffia”, privately condemn *DIO*'s ancient-astronomy researches as entirely-worthless speculation. The irony of the situation could not be more extreme: §B19. Such behavior would be discreditable enough if *DIO* were merely a second-rate periodical. (Where would be the harm in recognizing some occasional merit in second-raters? *DIO* frequently shows the Muffia such simple courtesy. And upgrading.)

T2 However, the hideous truth (which even a few Muffios are beginning to get an awful inkling of) is that the articles appearing in *DIO* include some of the most important scientific-historical analyses published in their respective fields. It is amusing to see how deeply the Muffia and many of the appropriate organs of History-of-science have invested — and even now continue to invest ever more irrevocably — their reputations, in the demand that *DIO* [i] be uncited and [ii] be classified as of null value.

T3 Putative intelligent officers of Hist.sci institutions should long ago have gauged the risk⁴⁵ such an investment entails: as scholars now realize how grossly wrong the Hist.sci center has been, what will universities think of continuing to support departments so censorially dominated by inverse-evaluation dim bulbs?⁴⁶ (Given the level of scientific expertise in History-of-science, one might entertain the analogy of asking what universities would make of establishing French Lit departments staffed by professors who don't understand French very well.⁴⁷ Even the level of *historical*⁴⁸ expertise in Hist.sci often leaves one wondering, especially in the Muffia-Ptolemy affair. And: what kind of historians care so little about what will be posterity's history of the technical & dictatorial lows⁴⁹ of the Ptolemy Controversy?) Thus, with this terrible vision before it, nervous Hist.sci archonduum has become mired more&more deeply in a self-created trap of attempting an indefinite staving off of the day of reckoning. Investors of the late 1920s had a similar problem: the short-term profits were so tempting that speculators just couldn't resist being drawn ever further into a situation where, the longer the process continued, the worse the eventual Crash.

⁴⁵ *DIO 1.2* §D4.

⁴⁶ In reaction to *DIO*'s findings & exposures, Hist.sci archonduum's facial expression remains frozen in speechless, gape-jawed horror, largely because, in a rather heavily BS&brainkissing field such as Hist.sci, archons have no experience with the coldwater-douse-shock of being confronted with scientific contradiction. It simply *does not happen* in the very best social circles of Hist.sci. To borrow CSICOP bored-member Ray Hyman's insightful 1980/1/12 comment (on CSICOP's catastrophic sTARBABY attempt at scientific experimentation: *DIO 1.1* ¶8 §A8): “It's like plumbers trying to do hairdressing”. One is reminded of fellow-CSICOPer Martin Gardner's astute remarks (*Fads & Fallacies* 1957 p.252) on another fishie-out-of-water, Wilhelm Reich, who had left shrinkoanalysis for a fresh career, selling “orgone-box” pseudo-physics: “From this point onward, you may take your choice of one of three possible interpretations of Reich's development, (1) He became the world's greatest biophysicist. (2) He deteriorated from a competent psychiatrist into a self-deluded crank. (3) He merely switched to fields in which his former incompetence became more visible. Critics who favor the last view point out that psychoanalysis is still in such a confused, pioneer state that writings by incompetent theorists are easily camouflaged by technical jargon and a sprinkling of sound ideas borrowed from others. When Reich turned to biology, physics, and astronomy — where there is a solid core of verifiable knowledge — his eccentric thinking became easier to detect.”

⁴⁷ See ¶7 §B25.

⁴⁸ See *DIO 1.2* fnn 92 & 116.

⁴⁹ See ¶7 fn 11.

‡10 The “Theft” of the Neptune Papers, or: Does the Astronomer Royal Merit an Amnesty?

In Which We Learn When & Why the RGO Neptune File Vanished

A The Disappearance

Among astronomers of historical bent, it has been rumored for years that the Royal Greenwich Observatory’s Neptune Papers were removed decades ago from the RGO by the well-known & well-connected astronomer Z. This file contained not only the 1845-6 Neptune correspondence of Astronomer Royal Geo. Airy, but also John Couch Adams’ famous & crucial original handwritten summary of his computation of then-undiscovered Neptune’s orbit, based upon the unknown planet’s perturbations of Uranus’ motion. The computation’s alleged date, 1845 October, has been put in question¹ by Rawlins 1992W.

B The Papers’ Nonavailability Is Publicly Admitted

Finally, Britain’s *Popular Astronomy* (1988 January p.5) even printed an advertisement [emphases added here&there by *DIO*]:

Who stole the Neptune papers?

B1 One of the greatest treasures of the Royal Greenwich Observatory’s archives is missing, believed stolen — the 140-year-old correspondence of Sir George Airy concerning the discovery of the planet Neptune. These lost papers would fill in one of the most controversial chapters in the history of British astronomy. [*DIO*: For fine summaries, see Turner 1904 Chap.2 or Smith 1989.]

B2 The Neptune story began in 1845 when John Couch Adams, a young Cambridge mathematician, calculated that an unknown planet was disturbing the motion of Uranus, and worked out its position. He sent his results to the Astronomer Royal, Sir George Airy, who failed to organize a search. Similar calculations were *later* made in France by Urbain Leverrier, and led to the discovery of Neptune in 1846 at Berlin.

B3 In the ensuing controversy, Airy was severely criticized² for his lack of action on Adams’ calculations. Airy’s correspondence on the matter, *which has still not been fully studied by historians* [*DIO*: this after 140 years . . .], *would be vital in explaining what went wrong.*

B4 The Neptune papers are believed to have *gone missing* in the 1960s [*DIO*: see below at §E13], when supervision of researchers in the RGO archives was less strict than it is now. Historians have known about the loss for some years, but the first public announcement was made by RGO’s archivist Adam Perkins to this year’s convention of the Federation of Astronomical Societies at Herstmonceux on October 3.

B5 Janet Dudley, librarian at RGO from 1978 until last year, told *Popular Astronomy* that she had searched for the papers without success. “I think they have been removed,” she said.

B6 So who took them? Janet Dudley’s predecessor, Philip Laurie, suspected an eminent astronomer who is currently based overseas. “His suspicion could well be right,” says Janet. “If so, hopefully the papers still survive. The Observatory would be delighted to have them back.”

B7 Anyone who knows the whereabouts of the missing papers is invited to get in touch with RGO, where archivist Adam Perkins is offering an amnesty for their return.

C Background

C1 However, in “The Neptune Conspiracy”, DR noted (Rawlins 1992W §C5, or here at §H6): [a] Z was a top figure at RGO, [b] RGO was a major living gainer from the file’s disappearance if it revealed (as DR proposed) that Brit-hero Adams’ claim of discovery-priority (ultimately promoted by longtime Astronomer Royal Geo. Airy) would be compromised by publication of this critical file, which had, remarkably, *been kept from public view for over a century* before its odd disappearance. (An earlier RGO Chief Assistant, H. Turner, saw it: “The letters . . . pinned together just as Airy left them”, Turner 1904 p.48. Yet even Turner had to use the published M16 account, not the originals.)

C2 When, on 1992/10/30, *DIO* hurriedly published the Rawlins 1992W analysis, DR had not yet taken the trouble to check his own long-neglected correspondence with the RGO. However, DR finally looked it out, because he had long been a little uneasy about a faint memory-impression that: the RGO Neptune file had seemed to evaporate at about the time he had asked to see it.

C3 When reading this correspondence now, one must remember that, in 1966, DR was in his twenties and — though critical & suspicious of 1846 British behavior (because of the nonsensical British version of the Neptune legend) — he was rather naïvely trusting of those he was dealing with a century later, and also implicitly shared an attitude which some readers will initially come in with: why, at this late date, would the British astronomical establishment wish to continue to cover up the truth about the Neptune affair?³ (In fact, there is no doubt at all that RGO suppressiveness has far outlived the Neptune story’s participants: see Rawlins 1992W fn 34. Remember, too, that a memorial to Adams is in Westminster Abbey,⁴ near I. Newton’s tomb, physically symbolizing a public trust in an astronomical legend — a legend whose shakiness British astronomy will therefore not be eager to acknowledge.) Also, DR was perhaps overextrapolating, from David Dewhirst’s forthcoming attitude, to the implicit supposition that all modern British astronomers were honest. (DR has since been enlightened in this connection by M. Hoskin & D. Hughes. Indeed, said enlightenment materially assisted in triggering a fresh DR look at the Neptune legend, an investigation which grew into Rawlins 1992W.) On 1967/3/2, David sent DR photocopies of the entire hitherto-unplumbed Cambridge Observatory file on Neptune [CON] (a precious gift and prime source, for which DR will always remain grateful).

C4 Final key background fact: at the time of the quarter-century-old DR-RGO correspondence we will review below, the RGO was just entering into the massive project of microfilming all its historical files, to make them available to scholars internationally. Thus, if the RGO Neptune file did not disappear promptly, it could no longer be kept secret — and scholars all over the world (including already-suspiciously-inquiring DR) would soon be plumbing its long-secreted data.

¹ Rawlins 1992W (*DIO* 2.3 ‡9); e.g., §C7 & §H1 item [4].

² Rawlins 1992W (§§A3&E7) argues for granting much-abused Astronomer Royal Airy a partial amnesty.

³ E.g., an intelligent British astronomer raised this point in a 1993/1/24 letter to DR.

⁴ This cements official commitment to the legend. (Similar to R. Peary’s Arlington Cemetery memorial.)

D Open Records & Open Disagreement

To: DR, 3120 St.Paul Street, Apt.413-F, Baltimore, MD 1966/12/21
 From: David W. Dewhirst, Univ Cambridge
 The Observatories, Madingley Rd, CB3 0HA, U.K.

D1 The Librarian of St.John's College has referred to me (as astronomer and librarian here) your letter asking about the MSS of Airy, [1846 Cambridge Observatory chief James] Challis, etc., relating to the discovery of Neptune.

D2 We have here the greater part of the relevant correspondence addressed to Challis. That part addressed to Airy *I have never seen* [emph added], but I suppose it to be in the archives at the Royal Greenwich Observatory. . . . I have written to Mr. P.S. Laurie at the RGO to confirm my suspicion.

D3 The three particular letters Airy to Challis of 1846 July 9, 13 and 21 are all here. The letter numbered 15 (in [M16]) lacks the phrase "a possible shadow of" in the printed version. [DIO: David was the first to reveal this censorship, as noted at Rawlins 1992W §B2.] Letter 16 [of M16] is printed in entirety: we also have Airy's MS of the "Suggestions".

D4 *I believe all the relevant MSS are extant; I have no reason to believe that anything important was fortuitously or purposefully destroyed.* [Emph added for hindsight irony.] You may know that Airy most carefully preserved *even his trivial papers.* [Emph added. See Turner 1904 p.48, Smith 1989 n.37, or Rawlins 1992W fn 36.] Nor do I believe that there is much of crucial import that has not already been published in substance

To: David Dewhirst 1967/1/1
 From: DR

D5 I am deeply grateful for the trouble to which you obviously went in order to reply so fully to my letter on the Neptune manuscripts. I can only hope that you found such rummaging as intrinsically enjoyable as [do] I and my [librarian] wife . . . and that it is not too awful an imposition to request [photocopies] of a few of the letters that you found. . . .

D6 I realize that you feel there may be nothing of value in the unpublished portions of the correspondence — and your familiarity with the period leads me to expect that indeed there *is* nothing of great import. But unlikely material does occasionally give surprising yield, and I've tried enough new viewpoints on the Neptune affair that perhaps I would see (or maybe just think I see) something of significance in what has hitherto been laid aside. The letters to Challis about which I am still hopeful are: Airy's "Suggestions" (enclosure with letter of July 13), Airy's letters of July 21 and October 14, and [Rob't] Main's letter of August 8 (all 1846). If Mr. Laurie can place the Challis letters [RGO Neptune file] to Greenwich of July 18, August 7, September 2, and October 12 (and perhaps the Airy-to-Leverrier letter of October 14), I would hope to make the same arrangement concerning copies. Indeed, there may be other letters . . . that have never even been noticed in the literature, much less quoted from. So I wish you would, if possible, [add to] the above [DR] list of manuscripts anything you find that looks unfamiliar to you on (for example) the reasons for the fiasco at Cambridge, or the lamentable fact that Adams was so totally unknown before the discovery outside of a small circle of Englishmen, or on Airy's or Challis' reaction to the various French accusations.

D7 Needless to say, I will be happy to cover the costs of reproduction. . . . [almost any fee for this] would come to less than [paying for] a trip to England (i.e., if in doubt [about a letter's value], reproduce)

D8 It turns out that the 1846/10/12 letter (requested by DR at §D6) was indeed bowdlerized (before Airy published it in M16). See §H12 & Rawlins 1992W §D7. The embarrassing uncensored text of this letter was later published by O.Eggen at *DSB* 3:186-187.

To: DR 1967/3/2
 From: David W. Dewhirst

D9 Further to your enquiries about the Neptune letters, etc., I enclose some material that you may find of interest. [DIO: This is understatement at its finest.] That part of the correspondence that was received by Airy is in the archives at the Royal Greenwich Observatory (Herstmonceux Castle, Hailsham, Sussex) and Mr. P.S.Laurie may be able to help you.

D10 There then follows David's chronological summary of his new catalog of Cambridge Observatory MSS on the Neptune history, a copy of which was enclosed — along with photocopies of all the major items in the file! David had laboriously compiled this catalog in response to DR's 1966-7 pleas for assistance; it has become the official record of the Cambridge Observatory Neptune file [CON], and this catalog has now been printed verbatim (cited to 1967 January, the date of the DR letter triggering the catalog's creation) at pp.110-113 of Patrick Moore's *The Planet Neptune* 1988 (Ellis Horwood *Library of Space Science & Technology*). The letter continued with some temperate advice, much of which DR agrees with (a circumstance which may surprise David, given the revolutionary nature of Rawlins 1992W) and all of which DR appreciates — both for the wisdom displayed and for the kind intent implicit:

D11 I hope you will forgive me if I make a few unsolicited remarks about the "strange history of the discovery of the planet", "the reasons for the fiasco at Cambridge", "the lamentable fact that Adams was unknown . . ." and so on (I quote from your recent letters). . . . I may be thought biased to the defence of Airy, Challis and Adams, since I write this letter in the house in which they successively lived. But whilst the history has been worth the writing I think that further speculations into motives, and the search for hidden meanings in turns of phrase, in some recent studies, have gone beyond what the evidence will bear. It has seemed to me (and re-reading these letters now confirms my opinion) that the courses the several individuals took arose from the reasonable and on the whole proper decisions of able and responsible men in the light of the evidence available to them at the time. It is so easy to say what they *ought* to have done for the greater glory, in hindsight, but most of us (if we flatter ourselves that we had their intelligence and bore their responsibility anyway) would have done what they did in the circumstances. I would not agree, for example, with your judgement that it was a "lamentable" fact that Adams was totally unknown outside a small circle of Englishmen. It was simply a fact. Consider a rather shy graduate student in the University of Maryland today, who has taken a brilliant first degree but not yet got round to writing up his first piece of research and trotting it off to the first available international conference. He is known only to his teachers and a small circle of friends: there is nothing lamentable about it — it is just the way things are, and were more so in a small English University town 120 years ago and when there were no international conferences.

D12 . . . I think there is a case for moderation in pursuing the strange history of the Planet Neptune.

E Approaching the RGO

To: P.S. Laurie, Herstmonceux Castle, Hailsham, Sussex, England 1967/4/1
From: DR, 3120 St.Paul Str, Apt.413-F, Baltimore, Maryland 21218

E1 Dr. Dewhirst has very kindly referred me to you. He may already have told you of my hope for [photocopies] of some of the manuscript material in the Greenwich archives relating to the discovery of Neptune.

E2 The materials I am anxious to see are:

1. Challis' letters to Airy: July 18, Sept.2, Oct.12, 1846.
2. Challis to Main: Aug.7, 1846.
3. Hansen to Airy: all letters from beginning of July, 1846 through June, 1847.

4. Every letter or note sent by Adams to Greenwich from Sept., 1845 through Jan., 1847.

5. Airy to Challis: Aug.6, Oct.14, Nov.3, 1846.

6. Airy to Hansen: July, 1846 through June, 1847.

E3 Also, *if there is a catalogue of the Neptune manuscripts at Greenwich, a copy might be useful for reference purposes.* [Emph added.] And if I have left unmentioned any unpublished material which, in your judgement, merits notice, don't hesitate to include it. I will be more than happy to cover the cost of [copying] both our selections (much that Dr. Dewhirst sent was reproduced entirely on his option and was of great value to me). . . .

E4 . . . do you know at what library J.R. Hind's correspondence is kept? [DIO: for what DR later discovered Hind had revealed, see Rawlins 1984N & Rawlins 1992W §B5.]

To: DR, 3120 St.Paul Str, Apt.413-F, Baltimore, Maryland, 21218 1967/5/24
From: P.S. Laurie, Royal Greenwich Observatory
[private stationery; RGO Ref: 1513B]

E5 I am sorry to be so long in replying to your [4/1] enquiry about the Neptune papers. We are, unfortunately, experiencing great difficulty in finding the manuscripts you require, but *shall be forwarding a list in the near future.* [Emph added.]

To: P.S. Laurie, Royal Greenwich Observatory 1967/6/3
From: DR

E6 My thanks for your note of the 24th — and, in advance, for your search. . . .

To: P.S. Laurie, Royal Greenwich Observatory 1967/9/8
From: DR

E7 I hope you won't think me pesty for writing you. But your May 24 letter on the search for Neptune manuscripts implied that *a list* was imminent [emph added,] and I haven't heard anything since. If this is due to the normal delays of library work, I quite understand (my wife is a professional librarian, too), but I have no way of knowing whether perhaps you sent something long ago which just never arrived. . . .

E8 So this note is sent merely to re-establish contact, against the outside possibility of [a mishap] neither of us could have known of.

To: DR 1967/9/13⁵

From: P.S. Laurie, Royal Greenwich Observatory
[private stationery; RGO Ref: 1513B]

E9 Thank you for your letter of September 8th.

E10 Just after I wrote you at the end of May, Mr. Rickett, who was dealing with the [Neptune] manuscripts, suffered a stroke from which he has not yet recovered.

E11 He *had drawn up a list of letters for examination* [DIO note: were there letters in this file that were *not* "for examination"?] although these, I fear, *do not appear to contain any new material.* [Emph added.]

E12 I shall try to give these my undivided attention *in the near future* and send you *notes on their contents.* [Both emph added.]

E13 So the file *and a fresh* [§E11] *RGO list of its contents* (not sent!) is attested as having existed as late as 1967/9/13. Note that, at §§D6, E1, & E3: DR had requested *photocopies of original documents*, not Laurie's 2nd hand notes-on-contents (§E12). This procedure and the restriction-redolent phrase "for examination" (§E11) both suggest that RGO was considering filtration of original data before they got to DR. (Barbara Rawlins comments: this sounds like Nixon in the latter stages of his compromise-attempt to offer selected peekaboo-glimpses at his Watergate tapes, rather than full public scrutiny. Note that RGO's very next ploy was: nearly two years of persistent nonresponse on the Neptune file.) Two days later, Laurie wrote DR on some particulars regarding the brothers Breen (one of whom assisted Challis in the 1846 Summer secret Cambridge Obs search for Neptune) and on Airy's doings — but this 1967/9/15 letter had nothing to do with the promised details on the contents of the RGO Neptune file. (By contrast to Laurie's previous letters, this one was on official RGO stationery: also RGO ref 1513B: "*Please address any reply to THE ASTRONOMER ROYAL quoting: 1513B and the date of this letter*".) Another period of noncommunication passed. During this long silence (which was to go on for many more months), DR wrote to the "Mr.Rickett" mentioned in Laurie's 9/13 letter:

To: Mr.Rickett, c/o RGO 1967/10/30

From: DR

E14 Mr. Laurie has told me that you had a rather bad stroke during the period while you were working on some of the Neptune manuscripts I'd inquired about for my researches. I want to thank you first-hand for the work you did and to wish you better health as well. . . .

E15 A month later, DR wrote another letter to RGO, mainly on Flamsteed & his accidental 1714 observation of Uranus, recovered by DR (*Science News* 95:96). But no reply was received from either Rickett or Laurie.

⁵ Note that the US-UK mails were quicker in 1967 than today, just as the UK-France mails were quicker than now back in 1846 (see Rawlins 1992W §D5). (But modern internal UK mail can be admirably swift. See ¶7 §A: 1994/1/13&14.)

F The RGO Keeps Bobbing & Weaving

F1 After more months of RGO silence, DR wrote again:

To: Philip S. Laurie, RGO 1968/3/6 [RGO ref: 1513B]
From: DR

F2 Please forgive another little reminder about the Neptune manuscripts. I've been working at a different project lately, so the delay hasn't mattered too seriously. But shortly I'll be starting work on the final draft of [my projected] Neptune book.⁶ It was originally completed some time ago, but I'm revising and re-checking it very scrupulously. Dr. Dewhirst can perhaps give you some idea of its novel rendition of the events. . . . [DIO note: Besides DR's open suspicions regarding the British version of the Neptune history, there was also, e.g., the DR discovery — imparted to David in early correspondence — that in 1846 July, Challis possessed a Berlin Starchart containing Neptune's position. See Rawlins 1984N, Smith 1989 p.406, Rawlins 1992W fn 70.]

F3 Still no reply. After yet another half-year passed, DR persisted.

To: Philip S. Laurie, RGO 1968/9/2 [RGO ref: 1513B]
From: DR

F4 Hello again. I know you've probably had terrible delays and inconveniences from the move out of Greenwich; but I thought, still, that I ought to keep in touch regarding the Neptune manuscripts I was hoping for.

F5 In that vein: do you know if the minutes survive for the 1846, June 29th, meeting of the Board of Visitors of the [RGO]?

F6 Incidentally, I have an article in the April number of *P.A.S.P.* that was constructed in part out of my November letter to you.

To: DR, 3120 St.Paul Str, Apt.413F, Baltimore, Maryland, 21218 1968/9/9
From: M. Berry [?], for P.S. Laurie, Royal Greenwich Observatory
[official RGO stationery; RGO Ref: 1513B]

[“Please address any reply to *THE ASTRONOMER ROYAL* quoting: 1513B and the date of this letter”]

F7 Thank you for your letter of September 2nd.

F8 It happens that, for once, I can supply you with some information. The minutes for 1846 June 29 do survive and so I am able to enclose a copy for your information.

F9 This was indeed of assistance to DR's researches. (See Rawlins 1992W §19 item [c].) But the letter *did not even mention* the matter of the long-secreted RGO Neptune mss requested at the outset of the very letter it was explicitly replying to.

G The File Goes Permanently “Missing”

G1 Yet another half-year went by, with, again, no word on the RGO Neptune Papers. So, DR tried again (naïvely treating the file as unlocated, contra §E10-§E11):

To: P. S. Laurie, RGO 1969/4/17 [RGO ref: 1513B]
From: DR

G2 About two years ago, I wrote you asking for [photocopies] of some manuscripts [relative to] the discovery of Neptune (letter 1967 April 1). Apparently there was some difficulty in locating the material, and I have not heard anything for a long time. Just the other day, I mentioned this to Joe Ashbrook [Editor, *Sky & Telescope*], whom you've been helping out on the Pond era, I gather, and he suggested [that the problem] might have something to do with the [RGO] microfilming project or . . . your move out of Greenwich. In any case, I thought I should write again, just on the chance that the documents sought have finally turned up. . . .

To: DR 1969/6/4
From: P.S. Laurie, Royal Greenwich Observatory
[private stationery; RGO Ref: 34/01]⁷

G3 I'm sorry about the delay in replying to your letter of April 17th, but, in spite of a prolonged search, the missing volume has not materialized. . . .

To: Philip S. Laurie, RGO 1969/6/24 [RGO ref: 34/01]
From: DR

G4 Thank you for your note of the 4th — and for your care in searching so thoroughly for the Airy 1846 correspondence [i.e., the RGO Neptune Papers]. I'm very sorry to have put you to so much trouble for no result — one hopes that the material is not lost forever. (Fortunately, some of it has been published.) . . .

G5 Allow me to broaden my [1969/4/17] enquiry regarding Airy's possible attendance at the 1846 [April] meeting of the R.A.S. . . .

To: DR 1969/7/16
From: P.S. Laurie for Astronomer Royal, Royal Greenwich Observatory
[official RGO stationery; RGO Ref: 34/01]

[“Please address any reply to *THE ASTRONOMER ROYAL* quoting: 34/01 and the date of this letter”]

G6 Thank you for your letter of June 24.

G7 I have examined Airy's official⁸ diary over the period 1845 October to 1846 June

G8 This letter provided the revealing historical information that Airy & Adams both attended the 1846/2/13 R.A.S. meeting — a fact which (as DR noted in his 1969/7/24 reply — see also Rawlins 1992W §16 item [2]) guts one of the traditional alibis for Adams (that he wasn't good at writing letters): he could have spoken directly to Airy regarding his Neptune work (and satisfied Airy's famous radius-vector question: see Rawlins 1992W fn 37).

G9 However, the 1969/7/16 RGO letter did not even mention the RGO Neptune file.

G10 The next time DR asked Laurie about it was during the visit by DR and his wife to RGO in 1970. Again: the story was that the records were mysteriously missing.

⁷ No reason was given for the shift in RGO ref# in this correspondence.

⁸ Question in passing, given the publicly-accessible Airy diary's non-mention of Adams until 1846 Xmas (!) (Rawlins 1992W §19 item [e]): is there a difference between Airy's “official” diary and another Airy diary?

⁶ See *DIO 1.1* †1 fn 10 & Rawlins 1992W §B5.

H Chile Nonreception

H1 Let us now remark the hitherto-unrevealed complexity & oddity of the RGO's story: [i] Missing, not missing, hide-for-2-years — and then missing again (for DR, anyway). See §I1 (especially item [f]). [ii] None of these stories are on official RGO stationary, while all the other RGO letters are.

H2 Over twenty years passed before DR wrote to an able US astronomer, who has worked at the RGO, and who shares an interest in the Neptune history.

To: Olin Eggen, Cerro Tololo Interamer Obs, Casilla 63-D, La Serena, Chile 1993/2/15 eo92f8[27,28]

From: DR, *DIO*, Box 19935, Baltimore, MD 21211-0935
(phone: 410-889-1414)

H3 Have you any comment upon the *DIO* 2.3 article [¶9] on the Neptune affair . . . ?

H4 I especially draw your attention to two sections, which I have extracted (from my \TeX file, slightly revised) for printing below.

H5 From fn 2 at the bottom of p.115:

Grosser . . . presumes . . . that the 1845/9 Adams solution was the same as that of “1845/10” = Hypothesis 1. . . . I note that O.Eggen (familiar with the lost RGO Neptune file), in a 1970 bio of Airy (*DSB* 1), vaguely remarks that Adams “called unannounced to present one of his early predictions” (p.86); and, in a 1971 bio of Challis (*DSB* 3), Eggen just says (p.187): “Adams presented Challis in September 1845 with some predictions as to where [Neptune] might be found.”

H6 From [*DIO* 2.3 ¶9] §C5 (atop p.125):

Among scholars today, the widely rumored belief is that the RGO Neptune file was borrowed (& never returned) by the astronomer Z, who used material from it in several publications. Missing from the “missing”-rumor is the fact that, around the time the file disappeared, Z was the Chief Assistant to the Astronomer Royal at RGO. The most likely gainers from this file's disappearance are not Z but: [1] a British legend, and [2] the RGO's reputation.

cc: R [Ian Ridpath]

H7 Receiving no reply, DR wrote again (about 3 months later), as follows.

To: Olin Eggen, Cerro Tololo Interamer Obs, Casilla 63-D, La Serena, Chile 1993/5/12 eo95c8[27,28]

From: DR, *DIO*, Box 19935, Baltimore, MD 21211-0935
(phone: 410-889-1414)

H8 I have no response to my earlier 2 mailings . . . (*DIO* 2.3 1992/12/28 & letter of 1993/2/15). So I again write, requesting information on certain matters relating to peculiar blanks in the history of the 1846 British search for Neptune, a subject on which you have written a number of intelligent articles.

H9 Your illustrious career includes 1940s service at the Lick Observatory, and you claim an association with the OSS (father to the CIA). Later, you were (1956-61 & 1964-5) Chief Assistant to Astronomer Royal Richard Woolley, as well as a CalTech prof at Mt.Palomar (1961-1966), before taking over at Mt.Stromlo (1966).

H10 In your 1970 *DSB* article on Airy, you say (p.87), “The extensive [Airy] biographical data are housed mainly in the new Royal Greenwich Observatory at Herstmonceux Castle, Sussex. Some of those covering Airy's pre- and post-Greenwich careers are in the hands of the writer”

H11 Questions:

[1] At the time this article appeared, you had been at the Australian National University for 4 years (despite continuing close relations with RGO and intermittent travel to England), as Director of its Mt. Stromlo Observatory (where Woolley, still an ANU hon.prof, had been Director some years earlier). I presume you did not transport any Airy mss to Australia. The superficial contradiction here must have a simple explanation.

[2] Why did you become a prime public defender of the RGO's Neptune-affair behavior? Your areas of astronomical specialization are not particularly relevant to this controversy.

[3] You were in the UK at precisely the moment in the late 1960s [specifically 1967/4/24; DR's first request of RGO was 1967/4/1: §E1] when the question was raised (to Astronomer Royal Woolley) of making available to researchers photocopies of letters in the RGO Neptune file, i.e., 1846 Astronomer Royal George Airy's critical Neptune correspondence, which soon after disappeared permanently from RGO's archives (a loss which also occurred during the RGO tenure of your sponsor, Woolley). At this time, you were Woolley's confidante as well as the leading public spokesman (1963-1971) for RGO's side of the Neptune controversy. Thus, I request that you now provide an account of internal toplevel RGO discussion regarding:

[a] how to deal with the palpable threat of imminent public scrutiny of this embarrassing file, and

[b] how it came to be decided that RGO would neither make photocopies available nor explicitly refuse⁹ to do so, but rather would keep putting off inquiries and thereby postpone [§F] carrying out the task — until

[c] a more permanent strategy for handling this delicate problem was decided upon.

H12 You are the last scholar to make verbatim use of previously-unpublished material from the “lost” RGO Neptune file. Your 1971 *DSB* article on Challis quotes from the full original texts of Challis' 1846/10/12 letter to Airy [§D8] and from Schumacher's 1846/10/24 letter to Airy. The words you quote were available nowhere else but in the RGO file.

H13 Questions:

[a] Why is there no bibliography attached to your Challis *DSB* article? (Of the thousands of bios published in the *DSB*, I doubt that more than ordmag 1% lack a bibliography. And, among this atypical microsample, probably not a single article quotes from original mss.)

[b] Why has the RGO's complete list (of the letters in its Neptune file) never been made publicly accessible? (If you have a copy of this list, would you please send me a [photocopy] of it?)

[c] Why was no microfilm (or official photocopy-set) ever made of the precious Neptune file — aside from the wellknown 19th century photo of Adams' “Hypothesis 1” document (the date of which, as shown in *DIO* 2.3 §C7, was added later by Airy)?

[d] When did you make copies of the letters you quote in your 1971 *DSB* commentary?

⁹ But, was the RGO going to say, straight out & unslimily: we prefer an RGO-approved, politically-safe scholar to have access instead of DR? (See §I1 item [f].)

[e] Can you specify an archivist who oversaw these transactions?

[f] Do you have any opinion to offer regarding the identity of the party who removed the RGO Neptune file? Britain's *Popular Astronomy* printed a notice at p.5 of its 1988 January issue, citing 1960s RGO archivist Philip Laurie's long-widely-rumored naming of "an eminent astronomer who is currently based overseas."

[g] The *Popular Astronomy* piece noted incidentally that (in the period from 1846 until the file's modern disappearance), "Airy's correspondence on the [Neptune controversy] has still not been fully studied by historians". Have you an opinion as to the reasons for this?

[h] Would you please send me (& bill me for) photocopies of all the RGO Neptune letters you have the texts of?

cc: C [Charles Kowal]

H14 No reply has ever been received. Which in itself answers some of the most interesting of the letters' questions.

I Reckoning

I1 Concluding comments: It is not credible that an individual stole the Neptune Papers on his own initiative. (See Rawlins 1992W fn 32 & fn 33 on previous cases of "missing" & filtered data in British-science institutional history.) And, don't fail to appreciate the RGO story's sinuous oscillations: [a] Great trouble finding papers (§E5). [b] Found them but — hold on — there's illness in the family, and [c] we're busy making a list (§E10-§E13). [d] Hide&duck for nearly two years (§E12-§G3). [e] Oops, that darned file (no mention of list now) is lost *again* (§G3). [f] In 1971, an RGO-related scholar publishes (§§D8&H12) new material from the very Neptune Papers which RGO has since 1967 (§E5-§G3 & §B4) repeatedly stated it cannot locate (fn 9).

I2 Some questions: Does anyone seriously believe that a genuine thief would suppose these letters to be especially worth money? (We note that none has been asked for.) And why would this hypothetical party also wish to steal the only copy of the list of the file's contents? And why was there only one copy of this list? — as if, indeed, any of these erratic tales deserve the slightest credence

I3 The documents in this article have been published here precisely because, from them, even a naïve reader will swiftly induce the identity of the real "thief".

I4 In conclusion, *DIO* asks that British astronomy finally:

[a] Acknowledge Leverrier's primacy in the discovery of the planet Neptune.

[b] Unshelve the deliberately-suppressed RGO Neptune Papers.

[c] Determine whether the RGO is permitted to confer an amnesty upon itself.

[d] Cease repeating the Adams legend until item [b] is accomplished.

References

CON = Cambridge Observatory Neptune mss file.

DSB = *Dictionary of Scientific Biography*, Ed: C.Gillispie, NYC.

M16 = MemRoyAstrSoc 16:385 (Airy), 415 (Challis), 427 (Adams).

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B. L. van der Waerden (world-renowned University of Zürich mathematician), on *DIO*'s demonstration that Babylonian tablet BM 55555 (100 BC) used Greek data: "*marvellous*." (Explicitly due to this theory, BM 55555 has gone on permanent British Museum display.)

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British Society for the History of Mathematics (*Newsletter* 1993 Spring): "fearless [on] the operation of structures of [academic] power & influence . . . much recommended to [readers] bored with . . . the more prominent public journals, or open to the possibility of scholars being motivated by other considerations than the pursuit of objective truth."