Omnia qui magni *despexit* lumina mundi qui stellarum ortus comperit atque obitus (Catullus 66.1-2)

Πάντα τον έν γραμμαῖσιν ἰδών ὅρον η τε φέρονται (Callimachus 110 [Pfeiffer]¹).

All the manuscripts of Catullus' *Coma Berenices* read *despexit* in the first line, but, as far as I am aware, every printed text for the last two hundred years has adopted not the manuscript reading but John Calpurnius' emendation, *dispexit*, originally suggested in 1481¹). The change does not at first sight seem an unreasonable one. *Despexit* must mean "looked down", an apparently difficult position for one observing the stars; *dispexit*, "saw clearly and distinctly", seems much more appropriate, and has the advantage of a good Lucretian pedigree: *nec tellus obstat quin omnia dispiciantur* (3.26).

Modern editors, however, enjoy an advantage not shared by Calpurnius, as a result of the publication, in 1934, of a papyrus from Tebtynis that preserves the first line of the Callimachean original²). This discovery might have been the occasion for a reexamination of the the reading of the Catullan version; such, however, has not been the case. B. Rehm was among the first to point out what he saw as the inadequacy of Catullus' translation, remarking that "Catulls Wiedergabe: 'omnia qui magni dispexit lumina mundi' entfernt sich nicht unbeträchtlich vom Original"³). But Rehm, and other scholars who have commented on this line, still retain Calpurnius' *dispexit* and judge Catullus' failure to convey the content of Callimachus not by his own words but by Calpurnius' emendation, which has acquired such authority that it has come to be treated almost as the original reading of the manuscripts and not as a conjecture.

1) R.Ellis, Catulli Veronensis Liber (Oxford 1867) ad loc., cites two other early emendations, Bentley's descripsit and Casaubon's suspexit.

2) M. Norsa and G. Vitelli, "Διηγήσεις di poemi di Callimaco in un papiro di Tebtynis", Papiri della r.università di Milano (Florence 1934).

3) "Catull 66.1 und der neue Kallimachosfund", *Philologus* 89 (1934) 385-6. Rehm attempts to bring Catullus closer to Callimachus by the further emendation of *lumina* to *limina*.

The opening lines of Callimachus' poem, we can safely assume, consist of an encomium on the skills of Conon as an astronomer. They state that he looked at the universe ev yoaµµaĩou and (here we must supplement the fragmentary Greek with the aid of the Catullan version) calculated the movements of the stars: $\delta \rho \sigma r \tilde{\eta} \tau \varepsilon \phi \varepsilon \rho \sigma \tau \alpha \iota$... The key phrase is $\varepsilon r \gamma \rho \alpha \mu \mu \alpha \tilde{\iota} \sigma \iota$, since it shows that Callimachus was laying emphasis not so much on Conon's physical observations as on his role as a theoretical and mathematical astronomer. C.A. Tyrpanis, in the Loeb edition of Callimachus, suggests that "on the charts of the stars the sky was divided by lines into sections. This probably is the meaning of $\vec{\epsilon} \gamma \rho a \mu \mu \alpha \tilde{\iota} \sigma i^{\prime \prime 4}$). But one can go beyond this, since $\gamma \rho a \mu \mu \eta$ has an even narrower technical meaning: it refers to the lines used in diagrammatic representations of the constellations, in which stars of major magnitude are joined by straight lines⁵). Thus the scholiast on Aratus 190 says of Cassiopeia (shaped like a giant "W"), ή μέν πρώτη γραμμή έστι τὸ σῶμα, ή δὲ πλαγία τὰ γόνατα. That these diagrammatic representations were as common on maps of the constellations of the ancient world as they are in the modern is indicated by a line of Leonidas, $\tilde{\eta}v \, \delta\pi\delta\tau\epsilon \, \gamma\rho\alpha\mu\mu\alpha\tilde{\iota}\sigma\nu$ $\dot{\epsilon}\mu\dot{\eta}\nu$ goéva $\mu o \tilde{\nu} v o \nu \dot{\epsilon} \tau \epsilon \rho \pi o \nu$ (A. P. 8. 344.1), where he seems to use yoauual as a synonym for astronomy. Their purpose was not merely decorative; they would assist the astronomer to establish accurate star coordinates⁶); it is no surprise that Conon, who was a mathematician of some note⁷), should have used them.

The first line of Callimachus' poem, then, emphasizes that Conon would have studied the constellations in charts and diagrams in order to make his astronomical computations. Latin, however, has no equivalent to yoauµaí and Catullus must use

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7) He wrote a mathematical treatise ' $\Pi g \partial \varsigma \Theta g a \sigma v \partial a i \sigma r$ on the mutual sections and contacts of conic sections, and was a close friend of Archimedes (see Opera Omnia [Heiberg] I.4.14; 168.5; II.2.2,13,19; 262.3,4,9).

⁴⁾ Callimachus. Aetia, Iambi, Hecale and other Fragments (London 1958) 81.

⁵⁾ See E.Bickel, "Die Locke der Berenike", RM 90 (1941) 101-2 and R. Pfeiffer, Callimachus (Oxford 1949) 112, for additional examples of yoaupai. The statement in Dionysius Periegetes 236, that the device was invented by the Egyptians, does not seem to be borne out by modern assessments of Egyptian astronomy, on which see O. Neugebauer, The Exact Sciences in Antiquity (Providence 1957) 91 and R.A. Parker, "Ancient Egyptian Astronomy", in F.R.Hodson (ed.), The Place of Astronomy in the Ancient World (Oxford 1974) 51-65. 6) See W.Gundel, "Sternbilder usw. bei Griechen u. Römern",

two expressions to bring out Callimachus' meaning. That constellations are involved he shows by the phrase omnia lumina; that he conceives of them as being on charts he shows by the word despexit, i.e. Conon looked down on them. Despicere, which usually implies looking down from a height, is a splendid verb to use of an omniscient astronomer who can survey the whole universe merely by looking down at his charts. All in all, given the limitations of the Latin language, it must be conceded that Catullus has made an earnest effort to convey the meaning of his Greek model⁸). Dispexit is undoubtedly an elegant emendation, but the despexit of the manuscripts does reflect the Callimachean original, and there is no reason why it can not be retained.

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⁸⁾ It is interesting that Catullus skilfully maintains the emphasis of $\pi \dot{a} \pi a$ at the beginning of the poem, although his omnia has a totally different syntactical function.