into account the insuperable practical difficulties of making any meaningful measurements of the enormously elongated and blurred shadows that would be obtained near sunrise and sunset—difficulties that Kahn and his advisers completely ignore.

No, my thesis remains unshaken; an equinox, unlike a solstice, cannot be determined by simple observation 'on the day when it occurs' (Kahn 114-his italics), until the theory of the celestial sphere and the relationships between its great circles and the horizon are known (cf. JHS lxxxvi [1966] 32 and especially n. 34). This is what all the factual evidence suggests (loc. cit. 33-5), and what anyone acquainted with the real problems would expect. For the rest, in those parts of his article in which he is not concerned with misrepresenting my views (for a true picture of which, see Early Greek Astronomy to Aristotle), Kahn devotes his efforts to rehashing the familiar 'evidence' for an advanced state of astronomical knowledge in sixth century B.C. Greece. He finds this 'evidence' convincing-I do not. I am content to have drawn attention to the very cogent reasons for rejecting it.

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The Neatherd's Progress in 'Theocritus'

'Theocritus'' *Idyll* xxvii describes how a neatherd progressively undresses a girl and then makes love to her. The progress of the neatherd's hand is accurately and humorously depicted. First the maiden says (19):

μή 'πιβάλης τήν χεῖρα' καὶ εἰσέτι; χεῖλος ἀμύξω.

The neatherd performs then a strategic withdrawal, but returns to the victorious attack in lines 49 ff. The girl exclaims (49)

τί ρέζεις, σατυρίσκε; τί δ' ενδοθεν άψαο μαζῶν;

at which the neatherd is undeterred, so that she has to repeat her request (51)

. . . τεὴν πάλιν ἔξελε χεῖρα.

The neatherd's hand proceeds to the garment of paramount importance, i.e. the $\mu i \tau \rho \alpha$ (55), and finally tears away the $d\mu \pi \epsilon \chi or or$ (59):

τἀμπέχονον ποίησας ἐμὸν ῥάγος·1 εἰμὶ δὲ γυμνά.

I shall now put right line 55. The ms. reads

φεῦ φεῦ, καὶ τὰν μικρὰν ἀπέστιχες· ἐς τί δ' ἔλυσας;

Everybody agrees that $\mu i \tau \rho a \nu$ must be restored: this

¹ I think it would be wrong to alter the ms. reading: 'Theocritus' evidently wanted to reproduce the spelling $\hat{\rho} \dot{\alpha} \gamma \rho_{\varsigma}$ which is in fact attested in papyri (cf. e.g. LSJ, s.v. $\hat{\rho} \dot{\alpha} \gamma \rho_{\varsigma}$).

is shown by the verb έλυσας (cf. Ap. Rh. i 288, Mosch. ii 164, Call. Hymn. i 21, Nonn. D. i 347, etc.), by the statement that the $\mu i \tau \rho a$, being the crucial article, will be dedicated $\pi \rho \acute{a} \tau \iota \sigma \tau \sigma \nu$ by the grateful neatherd to Aphrodite (56), and by the fact that the context is concerned with the girl's clothes² ($\varepsilon i \mu a \tau a$ 53,³ $\pi \epsilon \pi \lambda ov \leq 54$, $d \mu \pi \epsilon \chi ov ov^4 \leq 59$). On the other hand, Scaliger's anéoyioas is not convincing: it is palaeographically violent and, moreover, semantically inappropriate, because $d\pi \sigma \sigma \gamma i \zeta \omega$ (literally 'cut away from') is never used of loosening a $\mu i \tau \rho \eta$.⁵ The best discussion of the problem is in Meineke, Theocr.³ 392 (Gow, Cholmeley and Fritzsche-Hiller are unfortunately silent on the question): Reiske desperately tried to support $d\pi \epsilon \sigma \tau \eta \epsilon c$, but his defence failed in that the verb is intransitive and cannot in any case be made to mean 'remove'; Wordsworth, correctly seeing that Scaliger's $d\pi\epsilon\sigma\chi$, would be semantically incongruous as well as otiosely repetitive in company with έλυσας, proposed και ταν μίτραν από στήθεσφιν $\tilde{\epsilon}\lambda\nu\sigma\alpha\varsigma$, which is of course too violent.

Considering that the neatherd's hand, in line 55, has proceeded to, has reached the all-important piece of clothing,⁶ as emphasised by the girl's desperate $\varphi \varepsilon \tilde{v} \varphi \varepsilon \tilde{v}$, and remembering that confusion between

² On $\mu i \tau \rho a cf$. Bühler, *Eur.* p. 117 ff. (add Schrader-Schaefer, *Mus.* p. 244 ff.) and p. 200.

³ Cf. h. Ven. 164 λῦσε δέ οἱ ζώνην ἰδὲ εΐματα, Nonn. D. xii 387 f. μ(τρης...εΐματα.

⁴ The opposition between $d\mu\pi\epsilon\chi$ ovov in line 59 and $d\mu\pi\epsilon\chi\delta\nu\eta$ in line 60 is the obverse of 'pointless,' as Gow (ad xxvii 59) strangely says. Since the άμπέχονον appears to have been worn by 'vilioribus personis' (Thes., s.v. ἀμπέχονον, 160 B), it follows that it must have been a cheaper version of the $d\mu\pi\epsilon\chi\delta\nu\eta$. If this is so, the neatherd's words are very much pointed: he shrewdly (cf. xxvii 61) promises the girl $d\mu\pi\epsilon\gamma\delta\nu\eta\nu$ $\mu\epsilon\ell\zeta\sigma\nu\alpha$ (60), i.e. a garment bigger $(\mu\epsilon i\zeta ova)$ and better (as opposed to the cheaper $d\mu\pi\epsilon\gamma$ over which he has just torn). My explanation shows that the notion 'better,' which Cobet, Naber and Platt wanted to introduce into the text (cf. Gow ad loc.), is in fact already contained in the text. The 'solecism' $\tau \partial d\mu \pi \epsilon \gamma o \nu o \nu \epsilon \mu \delta \nu$ is not only paralleled by xxvii 38 and 72 (as Gow notes ad xxvii 59), but also by other examples in Theocritus (listed by Ameis, De art. usu apud poet. graec. bucol. [Prgr. Mühlhausen 1846] 41).

⁵ The notion 'cut away from' is inappropriate to the context, because a $\mu i \tau \rho a$ is untied, loosened, not cut; the verb $\dot{a}\pi \sigma \sigma \chi i \zeta \omega$, when not expressing the notion 'cut away from', entails the idea of '*tearing* off' (material in Thes., s.v.), which is equally inappropriate to the context: the maiden herself specifies that the neatherd has loosened ($\tilde{\epsilon}\lambda v\sigma a_{\varsigma}$), not 'torn off', her $\mu i \tau \rho a$.

⁶ On this motif cf. Call. fr. 75.45 ήψαο μίτρης. In the Idyll, the hand's progress starts with άψαο μαζῶν (49). Cf. Nonn. D. xii 387 ήψατο μίτρης and xvi 268 ff. δεσμὸν λύσατο μίτρης ... παλάμη. a and ε is common,⁷ it will become evident that the poet wrote

φεῦ φεῦ, καὶ τὰν μίτραν ἐπέστιχες· ἐς τί δ' ἔλυσας;

'Eπιστείχ ω + accus. means 'arrive at', 'reach' (cf. A. Eu. 906 à $\eta\mu\alpha\tau\alpha$. . . $\epsilon\pi\iota\sigma\tau\epsilon(\chi\epsilon\iota\nu\ \chi\theta \delta\nu\alpha)$ and belongs to the poetic language, whereby it fits with the high-flown diction used in the Idyll (the girl's $\varphi \varepsilon \tilde{v} \varphi \varepsilon \tilde{v}$ is of course tragic in tone: the neatherd's hand has ominously reached the $\mu i \tau \rho a$; on the shades of meaning of $\varphi \in \tilde{v}$ —tragic or mock-tragic—cf. Rumpel, Lex. Theoer., s.v.). My restoration is not only palaeographically, semantically, stylistically and syntactically consonant, but also contextually apposite. The neatherd first reaches the $\mu i \tau \rho a$ with his hand, and then proceeds to loosen it: the sequence is clearly expressed in line 55. $E\pi\epsilon\sigma\tau\nu\chi\epsilon\zeta$ is followed by a full stop denoting a pause; after the pausewhich indicates the time used by the neatherd to loosen the $\mu i \tau \rho a^8$ —the girl asks him $\dot{\epsilon}_{\zeta} \tau i \delta' \ddot{\epsilon} \lambda v \sigma a \zeta;$ Once the $\mu i \tau \rho a$ has been loosened, the maiden's fate is sealed: she tries to stop the neatherd's progress $(\mu i \mu \nu \varepsilon 57)^9$, but to no avail.

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⁷ Cf. e.g. Thes., s.v. a, 7A7 f., quoting Schaefer.

⁸ In the same way, the pause between $\mu\eta$ ' $\pi\iota\beta d\lambda\eta\varsigma$ $\tau\eta\nu\chi\epsilon \bar{\iota}\rho a$ and κai $\epsilon i\sigma\epsilon \tau\iota$; in line 19 denotes the interval between two attempts made by the neatherd's hand.

⁹ Míµve means literally 'mane ubi es' (Rumpel, Lex. Theor., s.v. µíµvw: cf. e.g. Ap. Rh. i 304,833), i.e. in the context, 'stay where you have arrived with your hand' and do not proceed to remove the $åµ\piéxorov$.

Parmenides' Sexual Theories. A reply to Mr Kember

In an article entitled 'Right and left in the sexual theories of Parmenides' (JHS xci [1971] 70-9) Mr Owen Kember challenges my statement (Polarity and Analogy [Cambridge, 1966] 17) that 'Parmenides probably held that the sex of the child is determined by its place on the *right* or *left* of the mother's womb (right for males, left for females)'. In his article Kember draws attention, usefully, to the confusions and contradictions of the doxographic tradition. He has, however, in my view, misinterpreted one crucial piece of evidence. This is the testimony of Galen, who quotes Parmenides Fragment 17 ($\delta \epsilon \xi \iota \tau \epsilon \rho o \tilde{\iota} \sigma \iota v$ μέν κούρους, λαιοίσι δέ κούρας) in the course of his commentary on [Hippocrates] Epidemics vi ch. 48. Kember notes, correctly, that the meaning of the fragment by itself is quite unclear: 'the only deduction which can be safely made from the actual fragment is that Parmenides thought right and left were somehow connected with sex, and even here we must rely on Galen's judgement that the passage did in fact refer to sex in the first place' (op. cit. 76). But

Kember also maintains that Galen's own introductory comments and interpretation of the fragment are ambiguous: 'when he]Galen] says that "the male is conceived in the right part of the mother" he might well mean that a F^1 [first generation] male offspring is actually conceived in the right of the womb, i.e. that the sex of the offspring depends on position in the womb, or alternatively, he could be arguing that an offspring which is already male is conceived in the right of the womb, i.e. that position in the womb is determined by sex' (*ibid*.).

Now so far as the statement of Galen that Kember actually quotes goes, one may agree that by itself this is unclear. But Kember neglects the context in which Galen's remark occurs. All that Kember gives of Galen's introduction is the single sentence that is quoted in Diels-Kranz. But this is embedded in an extended discussion and commentary of Epidemics vi ch. 48 running, in Wenkebach's edition (CMG v 10, 2, 2) from 118 20 to 121 11. This Hippocratic text is, as Galen himself remarks, obscure. Galen observes that if this book of the Epidemics had been a treatise prepared for publication, Hippocrates would have made his meaning plainer, but this does not stop Galen himself from stating quite clearly what he takes to be the Hippocratic doctrine in question. First he quotes and amplifies a text from the Aphorisms $(v \text{ ch. } 48)^1$ to the effect that male embryos are generally found on the right side of the womb, females on the left, adding that it is *eikóc* for what is hotter to be formed in the hotter part of the womb and going on to say that the male is hotter, as the size of his veins and his colour (males being generally darker than females) show. Later in the same chapter (1203) he refers to his work On Mixtures for proof of the truth of the opinion that the constitution of males is hotter than that of females. Finally (120 22) he states that the fact that males are mostly conceived in the right-hand side of the womb is proved by anatomical dissection, and he refers to his treatise On Anatomical Procedures for the cause (airía) of this. And when at 1214 ff. he summarises the cause of this supposed fact (that male embryos are on the right), he refers to the difference between the two sides of the womb, in particular to the purer quality of the blood on the right side. It is fairly clear that what Galen has in mind here is an

¹ Cf. Galen's remark in his Commentary on the Aphorisms (xvii B 840 f. Kühn): θερμοτέρα δὲ ή κρᾶσις γίγνεται τοῖς ἐμβρύοις οὐχ ἥκιστα καὶ διὰ τὸ χωρίον, ὅπερ ἐστὶ τὸ δεξιὸν τῆς ὑστέρας μόριον. The scholium of Theophilus shows that he, too, was in no doubt as to the meaning of the Aphorism: ή αἰτία ὅτι τὰ ἄρρενα θερμότερά εἰσι καὶ διὰ τοῦτο ἐν τοῖς δεξιοῖς ὡς ἐν θερμοτέροις δημιουργοῦνται (ed. Dietz, ii p. 469). Before Galen, too, Soranus had interpreted the view of 'Hippocrates' in a similar sense: ϣετο γὰρ ἐν μὲν τοῖς δεξιοῖς μέρεσιν τῆς ὑστέρας συλληφθέντος τοῦ σπέρματος ἄρρεν ἀποτελεῖσθαι, ἐν δὲ τοῖς εὐωνύμοις θῆλν (Gyn. i 13 45, CMG iv 32).