The Date of Hesiod

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THE DATE OF HESIOD.¹

(A Lecture given in November, 1914.)

Ogni strada, we are told, *ogni strada men' a Roma*. The roads which lead to Homer, an older goal than the Shrine of the Apostles, are nearly as many. One of them, not the most followed, runs through the literature of the historical centuries. When I say historical, I must observe that I use a term and make a distinction unknown to antiquity. To the ancients Homer was as historical as Pindar, the people of whom he sang were as historical as Pindar's patrons, often their descendants. The *μυθῶδες* or untrue element which the Greeks noticed in their poetry did not touch the individuals or the events; it was detected in violations of ascertained natural laws, such as the divine interference in ordinary life and the three daily tides of Charybdis. It is the modern world which has set a gulf the other side of Archilochus or Terpander beyond which persons are not found and all we descry is Gods in the making, bloody rites, and commercial movements which have come down to us under a false anthropomorphic and individualistic guise. It is difficult to shake off these modern prepossessions, to realise that the Greek world before 700 was not lit by corpse-candles, a dim field of legal fictions, eponymous and heraldic ancestors, but as human and positive as Phidon with his weights and measures and Solon with his code—as human and positive as the buildings, jewels and vessels which that world has left us. We are reluctant to admit that our ignorance of Lycurgus differs only in degree from our knowledge of Pisistratus, increasing in proportion to lapse of time and such accidental circumstances as the absence of written records.

If it is difficult to realise that the centuries before 700 resembled the centuries after, we may at all events build upon the period which our contemporaries allow to have been peopled by human beings. There are two centuries—going back from Pindar, let us say, of whose flesh and blood existence no one doubts—of written record, in which we do not find Homer. Homer is spoken of, followed, completed, but he is not there himself. He was earlier, he is looked back to. If therefore we define the dates of this younger period we obtain an apparent *terminus ante quem* for Homer.

¹ The best account of Hesiod is the admirable article 'Hesiodos' in Pauly-Wissowa *Real-Encyclopädie*, vol. xv. (1912), by Alois Rzach,

which summarises the literature. Chronological data are collected by Felix Jacoby, *Das Marmor Parium*, 1904, 152 sqq.

The most obvious province of this kind is the literature known as the Epic Cycle, which contained the history of the Heroic Age, that is to say its two great undertakings—for it had no other history—the interstate double Theban wars, ‘for the sheep of Oedipus’ as Hesiod says, and the international siege of Troy, for Menelaus’ wife. I must be allowed to assume the substantial accuracy of the ancient dating of the Cycle;² it depends on the same sources on which all Greek dates depend, local chronicles or *ἄροι, ἀναγραφαί* or lists of kings, priests, *πρυτάνεις*, and victors in games, and on the historical collections and studies of the Peripatetics and Alexandrines. It is an extension, the same in kind, of the system which gives us the aera of Terpander and Stesichorus, who are firmly fixed in history. And apart from the documentary evidence, the period to which this chronology assigns the post-Homeric movement in epos, one of great volume and activity, is the period when according to nature it must have taken place, the period, namely, before the rise and popularity of the iambic, melic and lyric forms of literature—amazing advances upon metrical annals which only differed from one another in being more or less romantic. The new forms rapidly covered the ground; Stesichorus and Alcaeus overwhelmed the Cycle and the Homeric hymns. Hence the inception and production of the Cycle took place in an earlier age, when the old hexameter vehicle was without a rival and still strong enough to tempt new talent. For these Cyclic poems such as they were, some better like the *Thebais*, others insignificant like the *Telegonia*, a wealth of candidates, mostly colonial, is supplied; and their date is pushed well towards the middle of the eighth century.

Consequently, as far back as 750 we find no place for Homer. The Homeric Hymns, though vaguer and all but traditionless, chime in; the oldest of them appears to be contemporary with the greater and older Cyclic poems.³ The same may be said of Eumelus and the Corinthian metrical historians, and of Antimachus of Teos.

I propose now to consider the evidence, in this direction, of Hesiod. Time has dealt hardly with the Boeotian singer, and has blown most of the tradition concerning him to the winds. His lives are Byzantine, and nearly all the statements about him in the old authors are in some way relative to Homer.⁴ He has one marked characteristic. While tradition—

² See *C.Q.* 1908, 64 ff., 81 ff.; 1913, 40 ff.

³ The Hymn to Apollo, work of Cynaethus who, first of rhapsodes, visited Syracuse after its foundation, that is in the eighth century, exhibits Delos and Delphi as parts of one religious system, and in so far agrees with the Hesiodic verses (fr. 265) which represent the Boeotian Hesiod and the Ionian Homer meeting at the Delian agon.

⁴ Beside the greater Alexandrians and Praxiphanes the Peripatetic, Hesiodic literature includes Amphion of Thespiæ (*ἐν Β' περὶ τοῦ ἐν*

Ἑλικῶνι μουσείου Ath. 629 A) *F.H.G.* iv. 301, Cleomenes *ἐν τῷ περὶ Ἡσιόδου* Clem. Alex. Strom. i. 61–3, Nicocles and Nicocrates (*ἐν τῷ περὶ τοῦ ἐν Ἑλικῶνι ἀγῶνος*) *F.H.G.* iv. 464, 465 (perhaps the same), two poets Chersias of Orchomenus and Hegesinous in his *Ἀρθίς*, both extinct in Pausanias’ day and reported by the Corinthian Callippus *ἐν τῇ ἐς Ὀρχομενίους συγγραφῇ* (ix. 29 and 38). Callippus himself has no more mention *F.H.G.* iv. 352. The verses of Chersias remind one of Lyceas the poetical guide (*ὁ τῶν ἐπιχωρίων ἐξηγητής*) Paus. i. 13. 8 etc.

and general belief—represented Homer and his work—Hymns, Cycle, and even parody—as one and indivisible, and only growing intelligence and the dawn of critical method eventually separated the *Iliad* and *Odyssey* from the rest, the authorised view of Hesiod from the beginning⁵ was that the verses were not homogeneous.

When Pausanias came to Thespieae on his Boeotian round, the representatives of the Corporation who owned the land and the *sagri luoghi*, the *συνθῆται μουσῶν* 'Ἡσιοδείων, told him dogmatically that the *Works and Days* alone came from the Master's hand, and shewed him the imperishable *ne varietur* copy on lead, wanting the prooemium which we read at the head of the poem. The great mass, then, of Hesiodic writings, the *Theogony*, *Catalogi*, 'Ἠοῖαι—of which no contemptible amount has been yielded of late by Egypt—and minor mantic lore, was the output of successors and disciples. This agrees with the Homeric circumstances, but the parallel is curiously in-and-out. The works of both schools bore the name of the Master; but whereas the post-Homeric poems were assigned in good time to their real authors, the anonymity of the Hesiodeans was unbroken. There are no claimants for the *Theogony*. At most we find Cercops of Miletus, Hesiod's rival according to Aristotle (*ἐν ᾗ περὶ ποιητικῆς*⁶), put up for the *Aegimius* (Athen. 502 c). The Thespian tradition is borne out by the words of the writer of the *Theogony* when he says 'I begin to sing the Muses of Helicon, who once taught Hesiodos his fair song as he shepherded his sheep under mighty Helicon.' These words can have no meaning but that the speaker and his predecessor were different. The near neighbourhood of the Nine Muses imposed this canonicity on the Hesiodic school; the influence of the Chian guild, if we believe the Homeric poems to have once been in their hands, was less authoritative.

The bulk therefore of the Hesiodic *corpus* is later than the *Works and Days*. Of the portion of this *corpus* which has survived the Aspis has no allusion to determine the date of the *Catalogi* (from which its first portion was taken). The *Theogony* however, in spite of the timelessness of its main subject, dates from a period which may be defined. It belongs to the class of poems which admit the actual world. As the Cycle anachronises with eagerness, and admits into the heroic age the Greek colonies, the Euxine and the Crimean chersonesus, the *Theogony*, without anachronism indeed, recognises the geography of its time. It mentions Aetna (860); Homer does not, unless the Cyclops be Aetna. Homer must have known Aetna, or at least that there was a snow-capped volcano in those parts, even if he did not know its name, for Mycenaean trade with Sicily had existed for centuries, and the argument that the portions of the *Odyssey* where Sicily is mentioned belong to the colonial period is one of the most extraordinary signs of the mental habit of the last generation of Homeric critics. The most unobservant trader must have noted Etna. One passage, the list

⁵ The author of the *Theogony* announces that he is not Hesiod.

⁶ And Diog. Laert. ii. 46.

of rivers 337 *sqq.*, is of much interest and value. I cannot discuss it in all its bearings, but I may say that while Father Nile here makes his entry on the geographical stage—a doubtful entry—and we also find for the first time the Po, the Strymon, the Danube, the Phasis and the Haliacmon, we look in vain for the Halys, the Rhone,⁷ and the Borysthenes. We are in the same world which lies on the horizon of the *Aethiopsis* and the *Cypria*, which allowed Artemis to shift Iphigenia to the Crimea, and Thetis to intern her son on an island at the mouth of the Danube. The Milesian settlements in the Euxine, or some of them, have taken place, but there is no west beyond Aetna, the Latins and the Tuscans. For the writer is the first to utter these famous names. The *Τυρσηνοὶ* are ruled by Circe's three sons, Latinus, Agrius and Telegonus. They live *μάλα τῆλε μυχῶ νήσων ἱεράων*, that is, past Sicily and behind Capri, Ischia and Circeii.⁸ There are no Italians,⁹ no continent and no Tiber.¹⁰ On the whole the writer had the same outlook as Arctinus of Miletus, who wrote ol. 9, '400 years after Troy.' There is nothing in the poem to drag it into the next century—and the same may be said of the fragments,¹¹ most of which doubtless come from the *Κατάλογοι*.

We come next to the *Works and Days*, with the presumption that if its writer was the predecessor and model of the Theogony-poet—and doubtless dead, as he that left untold the story of Cambuscan was when Milton wrote—the model turns the century. His book gives very vague evidence on the point. Neither its witch-wisdom, which Professor Murray has treated with his usual charm, nor his Farmer's Almanac

γῆς ἐργασίας καρπῶν ὄρας ἀρότους

agreeably expounded by Professor Mair, involve history. I return, indeed, to the Almanac, but I say goodbye to the witch-interest. Hesiod's observations also on the necessity for work, and the painful consequences of passing hours in the warm *λέσχη* in the winter, are not in time. The parts of the poem which do however faintly suggest a period are these. I may first remark that in Homer's case we have an extensive field of archaeological evidence by which to control and date his narrative, and it is to be hoped that we may ere long have written evidence also. But in the case of Hesiod the evidence for the early history of Boeotia is—Hesiod. When Strabo (402) sketches the history of the country he has nothing to mention between the Aeolic migration and the Persian war. The moderns have only added the

⁷ This is natural, if Massilia was not founded till 600 B.C. Timaeus, fr. 38, first mentions the river.

⁸ Theophr. *H.P.* v. 8. 3. *καὶ πρότερον μὲν οὖν νήσον εἶναι τὸ Κίρκαιον, νῦν δὲ ὑπὸ ποταμῶν τινῶν προσκεχώσθαι.*

⁹ *Ἀῤῥων* seems to appear first in Pindar, fr. 140 b 60, then in Scymnus 228.

¹⁰ Fick saw in *Ἄγριος* the man of the ager Latinus. But was there such a phrase in the

eighth century? and the place is surely covered by *Λατίνος*. I have thought that *ἄγριος* might = *campanus*, the native behind Cumae. The *Καμπανοί* occur in the Hesiodic parody of Euthydemus (Ath. 116 A) along with the Bruttians.

¹¹ They introduce to the world the Macedonian, the Arab, the Ligurian and the Scythian, the Hyperboreans, the Eridanus again with its amber, and Ortygia.

Boeotian league of the sixth century, from the evidence of coins.¹² Now Hesiod on his own showing is post-Dorian, a returned colonist from Cyme. I hold my hand therefore from the fascinating question of Boeotian origins, as much too early for Hesiod as the sixth century—which can only concern his latest disciples—is too late.

The first passage in the *Works and Days* which we need examine is the famous list of Ages of the World, 109 *sqq.*¹³ This is an evident blend of archaeological memory and a theory of human degeneration. Bronze followed by iron we know to be correct; but Hesiod's memory does not extend beyond bronze; he has no stone. On to this sequence were fitted members of the degeneration-series, gold and silver, and the whole was intended to exhibit the continuous decay of mankind. There is one exception in the downward course. Between bronze and iron Hesiod inserts the Heroes, who have no corresponding metal. The coincidence with apparent fact, that is to say, the civilisation of the heroic age as depicted in Homer, is wonderful, and Hesiod has been used to support the belief that there was a period when both bronze and iron were in use during which the Pelopidae and Aeacidae and other contemporary heroic houses ruled Greece and made war, some on Thebes and all on Troy. I am not averse from believing that Hesiod really meant that the age of Heroes intervened at this exact stage, though it is an inference from his words; but I must observe that if we so believe, there is hardly any limit to the accuracy of the Greek historical memory. The traditional past of the Greeks will have to be accepted in many less difficult cases,¹⁴ and literature, for instance Pindar's statements, will have to receive more respect. This conclusion I accept, as one who has never doubted the essential accuracy of the Greek recollection. Πιστὸν δ' ἀπίστοις οὐδέν, as Pindar says.

Here, however, I am only concerned with the fact that Hesiod knew of a time before iron existed, μέλας δ' οὐκ ἔσκε σίδηρος, when men's armour, their tools, and their houses were of bronze. This emphatic statement must surely date from a period not long after the actual introduction of iron. This distinction between the metals as resources of civilisation does not occur again in live literature. Iron must have been nearly as attractive as when the Suitors' fingers itched for it.¹⁵

Again, the description of the Heroes implies nearness to them. The distinction indeed between Heroes and men was always made. In Pindar human ancestors begin with the return of the Heraclidae. Before that the sons

¹² I refer to the article 'Βοιωτία' by F. Cauer in Pauly-Wissowa iii. 1899.

¹³ Imitated by Aratus Phaen. 108 *sq.* (gold, silver, bronze). I refer to Mr. Sikes' interesting remarks, *Anthropology of the Greeks*, 1914, p. 33 *sqq.*

¹⁴ *E.g.* that the Dorians came from Pindus, and Pelops from Asia.

¹⁵ The anecdote in Herodotus i. 68 which Mr. Sikes adduces *l.c.* p. 34, note 22, shews, it

seems to me, admiration for the process rather than for the metal. The forge is always attractive. The antiquarian Apollonius of Rhodes ἐν τῷ ᾧ τῶν ἐπομνημάτων thought iron was called χαλκός by the ancients (a view we have seen revived): but his commentator was better informed, and quotes Hesiod (schol. Ap. Rh. i. 430). Pausanias, another antiquary, notices Homer's language and confirms it by some evidence (iii. 3. 8).

of Aeacus, or whoever they may be, have a history on which Pindar dilates; but with the incoming of *ἄνδρες* the poet makes one step to the patron's maternal uncle. Hesiod draws this distinction, but in addition is acutely conscious of his own inferiority and that of his age, and of the virtue of the Heroes, a kind of set-back in the degeneration-series Silver-Bronze-Iron, and he trumpets their elevation from man to God. They all attain Elysian fields. Here Hesiod is of his age, the age that worshipped Zeus—Agamemnon, Diomedes and Ulysses. But I see the points flash in the thicket, or rather the periscope in the waves, and like Pindar *κόπαν σχάζω*. It is enough that Hesiod is aware of a once universal use of bronze, and of an essential difference between the men of his own time and their predecessors.

His recollection also is strong of the two exploits which composed the history of the Heroic Age, the two campaigns against Thebes and the one expedition against Troy. (The first Trojan war, when Heracles and Telamon battered down Laomedon's wall, he has forgotten.) Nothing has occurred in his own day to rival them, and the actual conditions are misery. The colony in Aeolis was no success, and justice in Boeotia is administered and property held by superiors who bear the title of *βασιλῆς*. This does not mean 'monarch': the term appears to connote little more than 'gentilhomme.' We find this meaning currently in Homer, but not in ordinary literature. It is therefore another mark of age. The squire of Ascrea belonged to a different order. You might, and did, gild his palm, but he was your better. A political, perhaps racial, distinction is implied. Who were these *βασιλῆς* whom the returned colonist found in Boeotia but the incoming Heraclids? We do not know the name of the baron of Ascrea,¹⁶ but Thebes was the property of the house of Aegeus. I am not aware that there were *πενέσται* in the Boeotian communities, but the wail 'fatigue and misery,' *καμάτου καὶ οἰζύος*, seems to rise from such a class, as the time-honoured lament that the children are not like their fathers may point to a mixture of race. Such conditions are not often long existent; the subject race reasserts itself. Or if they are permanent they are accepted as natural. These laments do not recur in the Hesiodic school. I think it may be fairly argued that Hesiod wrote not long after the catastrophe which turned Agamemnon and Ulysses into objects of worship and produced the economic misery of the Boeotian farmer.

The autobiographical passage (654–662) which is a natural consequence of the mention of the sea, and must not be doubted on the evidence of an aesthetic judgment like Plutarch's, asserts that the Master went across the Euripus to sing at the wake of Amphidamas at Chalcis. The same story, amplified, with Homer as the antagonist, is reported by Plutarch (conv. sept. sap. 153 F) from Lesches. Lesches by the rule of parsimony must, until the contrary is proved, be the Lesbian author of the *Ἰλιάς μικρά*, the contem-

¹⁶ Who is the hawk held out in the apologue 202 *sqq.*? Thebes?

porary of Arctinus.¹⁷ This poet tells us that Amphidamas had been a stout warrior in the Lelantine war with Eretria. So far Hesiod was a contemporary of the Lelantine war. Unfortunately we are no nearer a date, for this struggle cannot be defined by anything later than the Dorian migration.

However we see that the version of this story current in the latter half of the eighth century, that is to say in Lesches' day, is a heightened version of that in the *Works and Days*. The rival is named, and the theme is stated. We must therefore allow time—between the two accounts—for the story to grow, and pass the sea to Lesbos. We gain a second piece of chronological evidence similar to that of the *Theogony* with its mention of the Master by name. Both regard Hesiod at a distance, and in so far push the *Works and Days* considerably back.

We may turn round and say that the Lelantine war also is carried considerably back, and clearly into the ninth century; and who can say that this is unlikely?

I hesitate to invoke Hesiod's horror of the water, as this is a lasting convention, and was sincerely held in late antiquity¹⁸; or his mention, though the first, of 'black men,' *κυανέων ἀνδρῶν* (527).

Here we may consider the traditional dates ascribed to Hesiod. They are fewer than those given to Homer, which vary from the siege of Thebes to the time of Gyges, but they are sufficiently various. The Parian Chronicle, one of the treasures of the University of Oxford, puts him at 936 B.C. Pliny the Elder arrives at much the same date expressed in terms of the aera of himself. The *βίος* which has come down to us through Tzetzes puts Hesiod in the archontate of Archippus, the third Codrid. This would bring him nearer 1,000. There were, however, more moderate estimates. Apollodorus made him live between 846–777.¹⁹ Eusebius and some others put him in the eighth century. We are unaware of the grounds that the original calculators of these dates had for their conclusions. The late dates ascribed to Homer (*e.g.* the seventh century by Euphorion and Theopompus) may be confidently treated as critical conclusions, that is dates arrived at by observations of allusions in poems attributed to Homer (as he was held to be blind on the strength of the Hymn to Apollo), and probably this is the case with Hesiod also. The Parian date, which practically coincides with Herodotus', ii. 53, is explained by Jacoby, who has devoted much labour to these matters, as a reproduction of the views of Ephorus, who as a Cymaeon himself gave his countryman precedence by a generation over Homer,

¹⁷ *J.H.S.* 1912, p. 257 *sqq.*

¹⁸ Aratus Phaen. 110; it was a source of luxury, Greece having too much coast, Dicaearchus fr. 73. See the authorities in Stobaeus, ecl. iv. 17, *περὶ ναυτιλίας καὶ ναυαγίου*. The elder Cato regretted three things—of which the second was *πλεῖστας ὅπου δυνατόν ἦν περὶεῦσαι*, Plut. Cat. maj. 9. Strabo on the other hand,

an Asiatic and a traveller, gives the plain facts: ἀμφίβιοι γὰρ τρόπον τινὰ ἔσμεν, καὶ οὐ μᾶλλον χερσαῖοι ἢ θαλάττιοι. (c. 9).

¹⁹ Apoll. fr. 6, ap. Jacoby, 'Apollodorus' Chronik' (*Phil. Untersuch.* xvi. 1902, 118–120). The dates are an inference from Solinus, xl. 16. 17, part of whose statement is *in auspiciis olympiadis primae obiit*.

as he indicated by the pedigree in his ἐπιχώριος (Plut. vit. Hom. I, c. 2):^{19a}

The coincidence makes this view likely enough, but we do not know what induced Ephorus to choose the period 940–900 for his two heroes. The evidence derivable from the *Theogony* and the anecdote in Lesches justify us in rejecting an eighth century date for Hesiod's birth, but as between the ninth and tenth we are helpless.

This is not all the evidence. Hesiod has given us his apparent astronomical date. O.D. 564 he fixes the time in spring for cutting over vines by the rising of Arcturus, which appears above the streams of Ocean, that is the horizon, in the evening sixty days after the winter solstice. Arcturus' rising now-a-days occurs fifty-seven days after the χειμέρινα τροπαί, and therefore we have the apparent date for an astronomical determination. I am not the first by any means to have recourse to this evidence,²⁰ and my obligation is all the greater to the Radcliffe Observer, who has been at the pains to make a new and elaborate calculation. I am only sorry to have appealed to Dr. Rambaut's skill and labour in a matter where a positive historical conclusion seems to be so uncertain.

For, before we go any farther, is the figure ἐξήκοντα to be taken literally, or is it a round number? This amounts to asking whether a hexameter-writer is likely to express units as well as decads. The contingents of ships in the Catalogue afford some evidence. There are twenty-nine entries; in twenty-three the figures are decads,—100, 90, 80, etc. But the remaining six give us totals of 22, 12, 11, 9, 7 and 3. The Suitors again are reckoned down to the last man:

ἐκ μὲν Δουλιχίοιο δύο καὶ πεντήκοντα
 κούροι κεκριμένοι, ἕξ δὲ δρηστήηρες ἔπονται·
 ἐκ δὲ Σάμης πίσυρες καὶ εἴκοσι φῶτες ἔασιν·
 ἐκ δὲ Ζακύνθου ἔασιν εἴκοσι κούροι Ἀχαιῶν,
 ἐκ δ' αὐτῆς Ἰθάκης δυοκαίδεκα πάντες ἄριστοι,—

and no one will have forgotten the arithmetical machine employed to prove that the Greeks were more than ten times as strong as the Trojans (B. 122 sqq.). It appears then that a hexameter-writer of this period,

^{19a} For this and other pedigrees see *J.H.S.* 1913, 20, or Gruppe in Roscher s.v. Orpheus. In an interesting paper in the *Revue Historique* 1914, vol. cxvii. M. Pierre Waltz makes out the Hesiodic civilisation later than the Homeric, mainly from economic considerations and the greater distinction of trades and

professions.

²⁰ See De Morgan in *Hesiod, the Poems and Fragments*, done into English prose, with introduction and appendices by A. W. Mair, 1908, p. 135; J. B. Pearson, *Proceedings of the Cambridge Philosophical Society*, vol. iii. part iii. (1877).

while perhaps inclining to decads, could when he chose express any two figures without difficulty; and therefore, given Hesiod's practical aim, and that an almanac is hardly literature, we may take 'sixty' literally, and not as a convenience for 61 or 59; though the other possibility must be kept in mind; and with a round figure of course the evidence disappears.

If 'sixty' is taken literally, Dr. Rambaut's calculation disposes of Ephorus' date at once; for he will only admit the sixty days to be possible of B.C. 850, and that with reluctance. I of course accept this conclusion and throw Ephorus overboard. If we next try to utilise the astronomical evidence for a positive date, we must again consider the possibility that Hesiod took his figures from a predecessor, and that they were true of another time and place, not of Boeotia in the ninth century. This objection, which one would apply without scruple to a tragedian or to Virgil, seems less cogent the further we go back. We do not admit without some show of evidence that Hesiod had a predecessor of a different latitude, or a predecessor at all. Statements about the time of year to do something to plants must have a beginning; they cannot be handed on like miracles and descriptions of places from one Saint's life to another; they are not true of distant climes: vines in particular are not widely distributed, the ploughman from the sun his season takes, and the practical tone of Hesiod's calendar, designed to regulate the all-essential duty of periodic labour, inclines one to believe that Hesiod's almanac was correct of his own period. Taking therefore Dr. Rambaut's anterior limit, B.C. 850, as available evidence, I find that this determination agrees with Apollodorus' date of 846-777; Hesiod's *floruit*, when he may be supposed to have written (as his tone is that of an elder to a junior) will be about 800. This date I believe is acceptable to Dr. Rambaut's conscience. Hesiod's birth about 850 does not contradict Herodotus' jealous '400 years and no more before me'; and leaves about the right time to enable the author of the *Theogony* and Lesches to look back to Hesiod as a Master with a growing tradition.

If, on the other hand, it were thought better to consider 'sixty' a round number, which Dr. Rambaut is rather inclined to do, and neglect Arcturus altogether, I should still on the remaining evidence propose this date, as the latest which agrees with the other conditions.

Having dated Hesiod we have next to ask the origin of his school, the Boeotian epos; and its relation, temporal and causal, to the Homeric or Ionian.

Hesiod may be thought to have settled these questions himself, if he returned to Greece from Cyme, the very centre of colonial epos, and began with the help of the Muses to give out good counsel and sound knowledge. He might appear to have brought the old epic art with him and practised it in his new home. This may be the truth and the Boeotian school an escape from the Ionian. But the evidence must be stated. We have to observe that the Muses Hesiod invoked, and the Muses who through the centuries

lived on Helicon, are not the Muses of the Iliad. The Hesiodic Muses, to whom the Corporation did sacrifice through the centuries to Pausanias' days, were Heliconian. In Homer that mountain belongs to Poseidon. The Homeric Muses reside, so far as they have a residence, at Dorion in Nestor's kingdom, in the north of the historical Messenia. They are called 'Olympian' once, it is true, but in the same sense as the Gods generally are Olympian. It was to Dorion that Thamyris, a Thracian, whose last host was Eurytus, baron of Oechalia opposite Tricca, not far from the pass which led to Dodona—himself an innovator, who challenged Apollo with the bow θ 224—it was to Dorion that Thamyris came and defied the Muses to sing, with the results that we know.²¹ By Hesiod's time the Πίερες, southern Thracians—to Homer a mere landmark like Emathia, between Olympus and Athos²²—had sent their Muses, friends of Thamyris, south. Hesiod found these strange maids seated on Helicon, and to them he prays.

The event was not forgotten in tradition. Strabo (471) tells us that 'Helicon was consecrated to the Muses by Thracians who had settled in Boeotia,' and the same Thracians play a part in Strabo's account of the formation of the Boeotian state. Along with Pelasgi they drove the Boeotians north (evidently into the southern basin of the Peneus), where they lived long with the 'Αρναῖοι; eventually they returned to their own land, and 'were all called Βοιωτοί.' This account, taken no doubt from Ephorus (who intended it as a counterblast to Thucydides' story), represents the same people dispossessing the earlier inhabitants of Boeotia and planting their Muses on Helicon. The same story appears in a kind of 'evening edition' in Pausanias ix. 29. A poet, Hegesinus,²³ extinct in Pausanias' day, but quoted by one Callippus ἐν τῇ ἐς Ὀρχομενίου συγγραφῇ, wrote a versified *Atthis*, in which he related the foundation of Ascrea, and how it was Ephialtes and Otus, sons of Aloeus, who first sacrificed to the Muses on Helicon, Muses three; it was the Macedonian Pieros who raised them to nine, if indeed they were not his own daughters. And Mimnermus, in the proem to his lines on the Smyrnaeans who fought against Gyges, *i.e.* in the reasonable times of the seventh century, distinguishes between dynasties of Muses.

So when Hesiod returned from Aeolis to Ascrea he found a school of verse at Thespieae, and under its inspiration strung his thoughts together? This may be, but the further inference is not very clear.

The nature of the singing which came (with other things) from Thrace is quite unknown. It is often supposed to have been Orphic.²⁴ Orphic is

²¹ He continued to expiate his sins, *e.g.* in the Necyia of the Μυρτιάς, fr. 3, 4, along with Amphion.

²² ρ 224 *sqq.* This is the only mention of the word in Homer. B 766; it is a false reading. By the sixth century the Pieres had been pushed as far east as Pangaeum (Herod. vii. 112, Thuc. ii. 99).

²³ Hegesinus, Kinkel, *E.G.F.* p. 208; Callippus, *F.H.G.* iv. 352; Mimnermus, fr. 13.

²⁴ I refer to the formidable article of Gruppe in Roscher, vol. iii. 1. Whether the statement quoted by Frazer (Pausanias v. p. 154), that there was a Bulgarian poet of the name of Orfen is confirmed I cannot say. The name would correspond to the bye-form Ὀρφήν.

a vague term: in the age of Pisistratus, and of his Minister of Religion and Cults, Onomacritus, Orphic and Pythagorean doctrine was embodied in a series of hexameter poems attributed by a pious fiction to Orpheus. But the date of the descent of this kind of creed from the north—if it came from the north—into Greece is unknown, and there is no reason to push it back to the Dorian invasion. Moreover it is improbable that mountaineers descending, whether in one flood or in various streams, from the Haliacmon possessed a form of verse the exact counterpart of the elaborate Homeric hexameter. Hesiod's subject too is separated *toto coelo* from anything approaching Orphism.

The Heliconian Muses are more likely to have brought the paean or the nomos with them. The paean has been lately derived from the Paeonians,²⁵ and in default of any even plausible etymology of the word as a common noun this is likely enough. Its mention in Homer may be called if necessary an anachronism. The nomos orthios, which Homer does not know, is given by one fragment of tradition to Thamyras;²⁶ and its epithet sounds more like the Spartan goddess ΦΟΡΘΙΑ than the undistinctive attribute 'shrill.' Some violent discord of this kind, paean or nomos, must have made the Triphylian Muses blind Thamyras. And when Hesiod was 'excluded from the Delphic agon because he could not sing and play the cithara at the same time,'²⁷ does this mean he was ignorant, as an Ionian, of the new music?—or does it mean the same as Nicoteles' statement, schol. Pind. *Nem.* ii. init., that Hesiod was the first rhapsode to recite without the phorminx?

It seems probable then that we should conceive of the new Thracian music as melic or lyric,²⁸ and of Hesiod as coming from a rhapsode-centre in Asia and adapting that narrative-art to the sad circumstances of Boeotia. This is the usual view,²⁹ and it clearly entails the dependence of Boeotian epos upon the Ionian school, and therefore the priority of Homer, the master of that school, to the ninth century.

We see of course that the language is practically identical with that of Homer; the verse, though rough in places, is the same. The predominance of Ionian epos over the *Theogony* is shewn by the presence alongside of the Nile and the Ister of the absurd Trojan water-courses which had already received the canonisation of the Cremera and the Rubicon. Hesiod here copied his predecessor, as Polybius tells us every writer did till his own day, when πάντων πλωτῶν καὶ πορευτῶν γενομένων people could see things with their own eyes. Moreover we have the palpable imitation of Σ in the

²⁵ C.R. 1912, 249.

²⁶ Ὀρθιον νόμον Θαμύρα. ὁ κιθαρωδικὸς τρόπος τῆς μελωδίας, ἁρμονίαν ἔχων ταυτὴν καὶ ῥυθμὸν ὠρισμένον. ἦσαν δὲ ζ', ὧν εἰς ὁ ὄρθιος: gloss on Herod. i. 24 (Stein. vol. ii. p. 449). Thamyras is omitted in the fragments of this notice which are scattered in Suidas.

²⁷ Paus. x. 7. 3 λέγεται ἀπελαθῆναι τοῦ ἀγω-

νίσματος ἅτε οὐ κιθαρίζειν ἅμα τῇ φῶνι δεδιδαγμένον. Chersias or Hegesinus are probably responsible for the story.

²⁸ πρῶτος ἡρώσθη παιδὸς Ὑμεναίου (Suid. in Θάμυρις) seems a distant way of stating this. The words ὕμνος, ὑμῆν, ὑμέναιος are clearly connected.

²⁹ Rzsch, l.c.

Aspis. Points of contact indeed between the *Works and Days* and Homer are few. They have a proverb in common, to the effect that shame is out of place in a poor man, but probably neither published it for the first time.³⁰ We cannot expect to be able to compare a small Dutch-built craft of 800 lines with two swelling galleons of 15,000 and 12,000. Still, when Hesiod mentions Aulis it suggests to him the winter the Greeks lay there before they sailed for Troy; and the past heroic age possessed equally minds on either side of the sea. Hesiod marks the misery of the present, the Boeotian townships under their Dorian masters. Homer, who was perhaps better off in Ionia, shuts his eyes fast to his own world, and decks his nation's past, the age which had brought down Thebes and set Troy alight, in all the colours of passion and marvel.

T. W. ALLEN.

APPENDIX ON *WORKS AND DAYS*, 564 sqq.

Extract from a Letter by ARTHUR A. RAMBAUT, F.R.S., Radcliffe Observer.

THE problem is not without difficulties arising from the vagueness of the statements and the uncertainty of the data. I am afraid the lines of the poem will hardly suffice to fix the date of Hesiod with any precision; but they may possibly serve to place a limit below which it must lie, and I believe they show that the traditional date, 930 B.C., or thereabouts, is much too early.

I take it that the fourth line in the passage must be translated 'first rises brilliantly shining,' or perhaps I might say 'first rises visibly,' 'at the beginning of night,' i.e. 'in the evening twilight.' Now the first rising of a star in twilight is a most indefinite kind of phenomenon. Had we been given the last time on which it rose in twilight the problem would be more definite. But we must take the statement as we find it.

In the early part of February, say forty days after the Winter Solstice, the star would not rise until twilight was over and the eastern sky would be quite dark when the star appeared above the horizon. Each day the rising would occur about four minutes earlier than on the previous day, until a date arrived when the rising took place before the full darkness of night had set in. But it is hard to say precisely when twilight ends and darkness begins, and in determining this moment a great deal will depend on the idiosyncrasy of the observer.

Ancient astronomers devoted a good deal of attention to this phenomenon, and we are not without indications as to what their views were on the point. The question has also engaged the attention of modern investigators, but in discussing the meaning of the words of an ancient poet it will be best to be guided by the views of the ancients so far as they have come down to us. From a statement of Pliny's it would appear that Posidonius (80 B.C.) considered that twilight lasted till the sun had sunk 19° below the horizon. This, however, corresponds to the last vestige of daylight. The great Alexandrian astronomer Ptolemy (130 A.D.) fixes the appearance of first magnitude stars at the moment when the sun is 12° below the horizon. At this time there would still be a small but perceptible amount of light remaining. Let us call this a 12° twilight.

When a 12° twilight is reached the stars of the first magnitude begin to be visible, according to Ptolemy. But Arcturus is brighter than an average first magnitude star, and at any considerable altitude would ordinarily be seen in a brighter sky. On the

³⁰ ρ 347, 352, O.D. 500.

other hand, in the problem before us the star is by hypothesis close to the horizon, where the increased thickness of the atmosphere would diminish its brightness. Setting one consideration against the other, however, we cannot be far wrong in concluding that when the poet says the star first rose 'at the beginning of night' he may be taken to mean in a 12° twilight. The deeper the twilight we postulate the later will be the date indicated by the passage, whilst, if we assume that a very much brighter twilight is intended, it is doubtful whether the star would be visible at all to the naked eye; it would certainly not be conspicuous to the ordinary farmer. Thus a 6° twilight is, I believe, out of the question.

But we must consider what is meant exactly by the word *ἐπιτέλλεται*. We can hardly suppose, I think, that the true astronomical rising, or even the apparent rising as accelerated by refraction, is here intended. A star would hardly be seen exactly on the horizon even though as bright as Arcturus is and in a clear, pellucid atmosphere like that of Greece. We must, therefore, give it a little margin, and suppose that the word still applies though the star may have reached an apparent altitude of 1° or 2° above the horizon, but I do not think that a star which had reached an altitude of 4° (equal to eight times the moon's diameter) above the horizon could, even in the loosest way of speaking, be said 'to rise.'

The passage with regard to the Pleiades, to which you referred me, while it cannot itself be used for determining Hesiod's date, throws, I think, some light on this point, that is to say, with regard to the height above the horizon at which the star would have been first detected near its rising.

Having computed the position in the sky of Alcyone (the principal star in the Pleiades group) for the year 900 B.C., a star which, being only of the third magnitude, would require a 14° twilight to become visible at all, I calculated its period of invisibility in the latitude of Athens and I find that, in order to account for a period of forty days as Hesiod gives, it must have been possible to follow the star down to within about 1° of the western horizon, and to pick it up again at the Eastern horizon at about the same altitude. Of course I cannot claim any high degree of precision for this result, but if a star of the third magnitude like Alcyone were visible within a degree or two of the horizon it is clear that Arcturus, which is more than ten times as bright, could hardly escape the same observer within the same limit of altitude.

I have, therefore, not contented myself with merely calculating the times of the true, and apparent, rising of the star, but have also computed the times at which it reached the altitudes 1° , 2° , 3° , and 4° , although I think that the last is quite incompatible with Hesiod's expression if I understand it aright. Also, as there may be some doubt as to Hesiod's latitude, I have computed the times for the latitudes $37^\circ 5'$ and $38^\circ 5'$, and from these, by interpolation, have deduced the results for latitude 38° .

I may perhaps say that Mr. Pearson's method of calculating the times of rising of the star and setting of the sun in those early days, as given in the paper you sent me, is of a rather rough and ready kind. He makes what he would probably call a *bold* shot at the change in the obliquity of the ecliptic, *i.e.* the change in the relative position of the planes of the Earth's equator and the Earth's orbit, but he does not appear to have taken any account of the change in the position of the orbit in its own plane, or of the change in the form of the orbit between Hesiod's time and ours. His mode of allowing for the precession of the equinoxes, although primitive, is fairly correct, but he has committed a grave error in neglecting altogether the proper motion of the star in virtue of which it has altered its position relatively to the other stars by more than $1^\circ 5'$ in the interval which has elapsed.

In computing the following table I have allowed for the various changes enumerated in the last paragraph, calculating from modern tables with all needful precision, that is to say, with all the precision necessary to ensure an accuracy of a minute or so in the computed times. I do not think any of the figures given in my table can be in error by as much as two minutes. They are all expressed in apparent solar time, not mean

time, at the place of observation, wherever that may be, so that no question of Hesiod's longitude comes in.

An examination of the table will show that no date down to 850 B.C. will satisfy the conditions as I have supposed them to be. For instance, if we take the latitude of Helicon, about $38^{\circ}5$, then on the given date,—i.e. sixty days after the Winter Solstice,—the sun reaches a depth of 12° below the horizon at 6^h 26^m. But in 850 B.C. the star has reached an altitude of 4° nearly half an hour previously. It had reached an altitude of 2° no less than forty-six minutes before the 12° twilight began. Even if we assume the latitude to have been as low as $37^{\circ}5$, the time of the star's rising, allowing it any reasonable margin, will still precede that of a 12° twilight, nor is it possible, previous to the year 850 B.C., to make the time of the star's appearance follow that of the sun's reaching 12° below the horizon. Even if the possibility of a brighter twilight be admitted in order to make the time of star-rise equal to that of the 'beginning of darkness' we must suppose the star to have reached an altitude of at least 3° when spoken of as rising.

I think it is quite clear, therefore, that down to 850 B.C. this star cannot be said to have risen at the beginning of darkness on the 60th day after the Solstice, and if a later year is inadmissible I am afraid the poet's expression cannot be reconciled with the astronomical facts.

In all this I have assumed that the *ἐξήκοντα* is to be taken as exact. The interval elapsed since the Solstice might possibly have been determined with a fair degree of precision, but if the accuracy of this datum is open to question another source of uncertainty is introduced, and I might point out that an error of one day in this alone would bring about as large a change in the time of rising, or of reaching any given altitude, as an error of half a century in the year.

It just occurs to me that, should you think it worth while to get some one in Boeotia or Attica to make observations for you as to the first rising of Arcturus in twilight at the present time, some light might possibly be thrown on this question. Such observations should be made during the month of March or the early days of April. In the present year (1914) Arcturus will rise on March 13 after the sun has sunk below the horizon to a depth of 18° , when total darkness will have begun. On April 2 the star will have reached an altitude of 4° above the horizon before the sun has sunk 6° below it, and so it could not be said any longer to rise in twilight.

All that such an observer need do is to observe accurately the time at which Arcturus is first seen in the Eastern sky and the time at which twilight ends on as many days as possible between March 13 and April 2. Assuming we know his geographical position we could then compute the positions of the sun and star with regard to his horizon.

SIXTY DAYS AFTER THE WINTER SOLSTICE.

RISE OF ARCTURUS.

Latitude.	37½°			38°			38½°		
	Date.			Date.			Date.		
	950 B.C.	900 B.C.	850 B.C.	950 B.C.	900 B.C.	850 B.C.	950 B.C.	900 B.C.	850 B.C.
True Rising ...	h. m. 5 26	h. m. 5 30	h. m. 5 34	h. m. 5 23	h. m. 5 27	h. m. 5 32	h. m. 5 20	h. m. 5 25	h. m. 5 29
Appt. „ ...	5 22	5 26	5 30	5 19	5 23	5 27	5 16	5 20	5 24
Altitude 1° ...	5 30	5 34	5 38	5 27	5 31	5 35	5 24	5 28	5 32
„ 2° ...	5 38	5 42	5 46	5 35	5 39	5 43	5 32	5 36	5 40
„ 3° ...	5 46	5 50	5 54	5 43	5 47	5 51	5 40	5 45	5 49
„ 4° ...	5 54	5 58	6 2	5 51	5 55	5 59	5 49	5 53	5 57

SUNSET.

Latitude.	37½°		38°		38½°	
	h.	m.	h.	m.	h.	m.
Sunset	5	29	5	28	5	27
6° Below	5	56	5	56	5	56
12° „	6	27	6	27	6	26
18° „	6	57	6	57	6	57

NOTE ADDED LATER.

With regard to the apparent brightness of Arcturus near the horizon and the degree of twilight at which stars of different magnitudes become visible as the twilight increases much valuable information may be obtained from an important paper by Herr J. F. Julius Schmidt, formerly Director of the Royal Observatory, Athens. The paper is entitled “Ueber die Dämmerung” and is published in the *Astronomische Nachrichten*, No. 1495.

In this paper the author gives a table showing the depression of the Sun below the horizon at which stars of the 1st, 2nd, 3rd, 4th, 5th, and 6th magnitudes successively become visible at the zenith, and in another table he exhibits the successive altitudes at which, in consequence of the absorption of light in the atmosphere, the star Arcturus is reduced in brilliance by well defined gradations, until at an altitude of 1°.2 it appears to him no brighter than a star of the 5th magnitude does at the zenith.

This table would, I think, prove useful to anyone studying the question.

A.A.R.