

INTRODUCTION



I LIFE OF ARATUS

Ancient evidence for the life and works (other than the *Phaenomena*) is provided mainly by four Vitae preserved in Aratean MSS, with a version of Vita III in the Latin of *Aratus Latinus*, and a fifth Life in the Suda s.v. Άρατος. For the text and full discussion see J. Martin *HT* 137–95, for the text alone *SAV* 6–21. An earlier edition of the four Vitae without the Suda version is that of E. Maass *Comm.* 76–9, 323–4, 146–151, 324–6, and Maass has a full discussion of the lost works in *Aratea* 211–48. W. Ludwig in *RE* Suppl. x (1965) 26–30 gives a brief critical review of the information provided by the five Vitae.

The Vitae are sometimes contradictory, and contain obvious and probable errors, but where most or all agree they suggest a common origin. Martin (HT 196-202) plausibly ascribes this to Theon of Alexandria, a grammarian of the first century BC, who is named as the author of Vita III by Triclinius in cod. Ambrosianus C 263 inf. (SAV 14).

There is general agreement that Aratus came from Soli in Cilicia (cf. Call. E. 27.3 ὁ Σολεύς), that his parents were Athenodorus and Letophila, and that he had three brothers, Myris, Caliondas and Athenodorus. He is said to have studied under the grammarian Menecrates of Ephesus, the philosopher Timon, and also Menedemus (Suda), and in Athens with Persaeus (Vita IV) under Zeno (III). His date is expressed roughly by reference to the reigns of (κατά. ἐπί) Ptolemy Philadelphus (III, IV) and Antigonus Gonatas (1), and more precisely by his association with close contemporaries (συνήκμαζε, συνήκμασε, σύγχρονος, συνεγγίζων κατά τους χρόνους), Alexander Aetolus (III, IV, Suda), Dionysius of Heraclea (II), Antagoras of Rhodes (Suda). Other poets also named are Philetas (II, IV), Callimachus (III, IV), and even Menander (IV). But very little is known about Philetas, there is no evidence that A. ever met Callimachus



INTRODUCTION

(K.O. Brink, CQ 40, 1946, 13–14), and Menander was a generation older.

A. must have spent several years in Athens, associating with other poets and philosophers, especially Stoics, and may well have become acquainted then with the circle of Menedemus in Eretria. He had already made a name for himself as a poet before the year 276, the only reliable date we have for his career, when he was summoned by Antigonus, who had himself been a student in Athens, to his court at Pella, along with the Stoic Persaeus, Antagoras of Rhodes, and Alexander Aetolus (Vitae I, III, IV, Suda). Antigonus had finally claimed his kingdom, strengthened by his defeat of the Gauls at Lysimacheia in 277, and his invitation to A. was probably linked with the king's marriage to Phila, half-sister of Antiochus II of Syria, about the end of the following year. This is apparently the year indicated by the reference in Vita 1 to Olympiad 125 (erroneously 105 in IV, 124 in Suda), to which is added καθ' δν χρόνον ήκμασεν ὁ Άρατος. If we may think of A. as having been in his mid-thirties by this time, his birth could be tentatively placed about 310.

Vita I also gives us the legend of how A. came to write the Phaenomena, τοῦ βασιλέως Εὐδόξου ἐπιγραφόμενον βιβλίον Κάτοπτρον δόντος αὐτῷ καὶ ἀξιώσαντος τὰ ἐν αὐτῷ καταλογάδην λεχθέντα περὶ τῶν φαινομένων μέτρῳ ἐντεῖναι καὶ ἄμα εἰπόντος ὡς "εὐδοξότερον ποιεῖς τὸν Εὔδοξον ἐντείνας τὰ παρ' αὐτῷ κείμενα μέτρῳ." Vita III, however, after telling how Antigonus provided the theme, δοὺς τὸ Εὐδόξου σύγγραμμα καὶ κελεύσας ἕπεσθαι αὐτῷ, goes on to refute the opinion that A. merely copied Eudoxus and was no μαθηματικός himself, a misconception best known from Cic. De orat. 1.69 si constat inter doctos hominem ignarum astrologiae ornatissimis atque optimis uersibus Aratum de caelo stellisque dixisse; cf. Rep. 1.22. The story of Antigonus' command may have been inspired by some fulsome expression of gratitude on the part of the poet to



THE PHAENOMENA

his patron for his encouragement, imitated perhaps by Virgil in G. 3.41 tua, Maecenas, haud mollia iussa. Martin suggests (HT 172) that the legend was invented by A.'s critics. At least the story suggests that the Phaenomena was written at Pella in the years following 276, although A. had probably started to think about it during his sojourn in Athens.

Vita I also derives from an unnamed source (τινές) the tradition that A. later went on to the court of Antiochus in Syria to work on a recension of the Iliad, Vita III Δωσίθεος δὲ ὁ πολιτικὸς ἐν τῷ πρὸς Διόδωρον ἐλθεῖν φησιν αὐτὸν καὶ πρὸς ἀντίοχον τὸν Σελεύκου καὶ διατρῖψαι παρ' αὐτῷ χρόνον ἰκανόν. Hence Gow in HE p. 104 suggests that Meleager's οὐρανομάκευς φοίνικος (3974–5) may have been chosen with reference to A.'s residence in Syria. If the sojourn in Syria is true, it may have been a short one, since the Suda notice records that after A. went to Antigonus συνώκει τε αὐτῷ καὶ παρ' αὐτῷ ἐτελεύτησε. This suggests that A. died before Antigonus, that is, before 239.

II THE PHAENOMENA

- (a) Structure of the poem
- A. I-18 Proem: hymn to Zeus as beneficent fathergod, who designed the constellations as a guide to the changing seasons (I-14), invocation of Zeus and the Muses (I5-18).
- B. 19-461 The constellations and how to recognise them.

 19-26 The rotating sky, its axis and poles.
 26-62 The northern circumpolar constellations: Bears (26-44), Dragon (45-62).
 63-90 The Dragon's head group: the kneeling figure (63-70), Crown (71-3), Serpent-holder and Serpent (74-87), Claws

5

(88-90).



INTRODUCTION

91-146 The Great Bear's tail group: Bootes (91-5), Maiden (96-136), nameless stars (137-46).

147-178 The Great Bear's body group: the Twins, Crab, Lion (147-55), Charioteer (156-66), Bull (167-78).

179-267 The Cynosura group: Cepheus (179-87), Cassiepeia (188-96), Andromeda (197-204), Horse (205-24), Ram (225-32), Triangle (233-8), Fishes (239-47), Perseus (248-53), Pleiades (254-67).

268-318 The kneeling figure group: Lyre (268-74), Bird (275-81), Water-pourer and Capricorn (282-99), Archer (300-10), Arrow, Eagle and Dolphin (311-18).

319-321 Transition to the southern stars. 322-352 The Orion group: Orion (322-5), Dog (326-37), Hare (338-41), Argo (342-52).

353-401 The Sea-monster group: Sea-monster and River (353-66), origin of the constellations (367-85), Southern Fish (386-8), the Water stars (389-401).

402-450 The Altar group: Altar (402-30), Centaur and Beast (431-42), Hydra, Bowl, Raven and Procyon (443-50).

451-453 Conclusion to the constellations. 454-461 The erratic movements of the five planets.

C. 462-757

The passage of time and how to estimate it by observing the constellations and the moon and sun.

462-558 The four celestial circles: introduction, and the Milky Way for comparison (462-79), the northern tropic (480-500), the southern tropic (501-10), the equator (511-24), the ecliptic (525-58).



THE PHAENOMENA

559-732 Simultaneous risings and settings: the time of night, to be estimated by observing the stars on the horizon (559-68), stars that rise and set simultaneously with the risings of the Crab (569-89), the Lion (590-5), the Maiden (596-606), the Claws (607-33), the Scorpion (634-68), the Archer and Capricorn (669-92), the Water-pourer (693-8), the Fishes and the Ram (699-711), the Bull (712-23), the Twins (724-32). 733-757 Days of the month (733-9) and times of the year (740-57).

D. 758-1141

Local weather signs observable in natural phenomena and the behaviour of birds and animals.

758-777 Second proem, on the weather at sea and the value of learning the signs.

778-908 Celestial signs, from the appearance of the moon (778-818), the sun (819-91), the Manger (892-908).

909–1043 Miscellaneous signs of weather conditions: of wind, from birds and natural phenomena (909–32); of rain, from natural phenomena, birds and animals (933–87); of fair weather, from clouds, stars, lamps and birds (988–1012); of storm, from stars, clouds, birds and domestic life (1013–43).

1044-1103 Seasonal signs: from vegetation (1044-63), of winter from farm life, of drought from comets (1064-93), of summer from birds (1094-1103).

1104-1141 Local signs of bad weather from animals.

E. 1142-1154 Conclusion: a summing-up of the principal lessons.

For the modern view of the poem's structure (cf. note on



INTRODUCTION

733-757) see K. Schütze, Beiträge zum Verständnis der Phainomena Arats, diss. Leipzig (1935); J. Martin, Arati Phaenomena (1956) pp. xxi-xxiv; W. Ludwig, Hermes 91 (1963) 429-38.

(b) The Hesiodic genre

The Works and Days is in the first place a model for the Phaenomena as a whole. The genre is didactic epic; its form consists of a proem, development of a main theme, and a conclusion. The basic theme is the problem of how to prosper in contemporary life. Hesiod explains the presence of human troubles by reference to myths, and urges a morality of just dealings and hard work, then gives practical advice on farming and sailing, with instructions on the calendar and weather signs. The Phaenomena follows a similar overall plan. The basic theme is still a concern with problems of contemporary life, and practical instruction is given on astronomy and weather signs for the benefit of farmers and seafarers. But A. aims to improve on Hesiod in many ways, so bringing his genre up to date. The structure of the poem is more clearly organised, and the development from one section to another is more intelligible. With the growth of science the natural world is better understood, and Zeus is now a helpful rather than a hostile god.

Many of the minor themes of the *Phaenomena* are derived from the *Theogony* as well as from the *Works and Days*, and are meant to be recognised as such by Hellenistic readers, who are also expected to appreciate the ingenuity with which the source material is often differently treated. Both Hesiodic proems give pre-eminence to the Muses and then celebrate Zeus. A. gives the priority to Zeus, who is significant for the whole poem, and invokes the Muses only for the sake of the epic tradition. Hesiod's Zeus is celebrated for his power over men, A.'s new Zeus for his helpfulness to men: see notes on 1–18.



THE PHAENOMENA

Myths are used by A. to relieve the technical description of the constellations, and several of these are drawn from Hesiod. From Th. 477-84 comes the story of the infant Zeus hidden in a cave in Crete (Phaen. 31-5). A. deliberately recalls Hesiod's Διὸς μεγάλου διὰ βουλάς (465) with his Διὸς μεγάλου ἰότητι (71), ἐς Λύκτον (477) with Λύκτφ (33), and ἄντρφ (483) with the same word in the same sedes (34). The Theogony also provides a mixed source for A.'s myth of the Horse (216-24): φασι gives a sly hint of Hesiod, Ἦπου κρήνης is taken from Th. 6, and the choice of πηγαῖς for 'water' suggests the naming of Pegasus in Th. 281-2. A. himself does not name the Horse, nor does he give it the power of flight, as Hesiod does in 284. The names Doris and Panope (658) are chosen from Th. 250.

The myths that link the *Phaenomena* most clearly with the Works and Days are those of Dike (Op. 213–85) and the Ages (109–201), which A. combines in 98–136. His ἄλλος λόγος (100) points back to Hesiod's ἕτερον λόγον (106), which introduces the myth of the Ages there. For Dike see note on *Phaen.* 105. For A.'s variations in the characteristics of the successive Ages, and omission of the Heroic Age, see notes on 96–136, 107 θέμιστας, 108 λευγαλέου τότε νείκεος, 109 διακρίσιος, 110 αὕτως δ' ἔζωον and ἀπέκειτο θάλασσα, 112 βόες καὶ ἄροτρα, 113 μυρία πάντα and δώτειρα δικαίων, 115 ἀργυρέω, 118 ἐξ ὀρέων, 123–6, 129–136 and 130. The departure of Dike to the sky (133–5) is modelled on that of Aidos and Nemesis in *Op.* 197–201, with the difference that these abandon men completely, whereas Dike remains at least reassuringly visible.

A major theme of the Works and Days is the star calendar, which gives the background for important times of the year in the section 383-694. Hesiod uses the system of risings and settings (see note on Phaen. 265), referring to the Pleiades (383-4, 572, 615, 619), Sirius (417, 587, 609), Orion (598, 609, 615, 619), Arcturus (566, 610) and the Hyades (615); his reference to Orion and Sirius in 609 is,



INTRODUCTION

however, to a culmination at dawn. He also mentions the solstices as a time reference in 479, 564, 663. A. is mainly concerned with the entire annual movement of the constellations and bright stars, and their use as a guide to the time of night as well as the time of year, but he makes a point of alluding to the use of Hesiod's stars at their risings and settings, the Pleiades (264–7, 1066, 1085), Sirius (332–6), Orion (309–10), Arcturus (745), the Hyades (172–3); he also adds to the list the Goat and Kids (157–9). In associating the (morning) setting of the Pleiades with the beginning of winter and time for ploughing (266–7) he points back to Op. 384 and 616. A. also mentions the solstices three times (286, 499, 508).

Other passages on the farmer's year that are reminiscent of Hesiod are 514 exapos is $\tau\alpha\mu\dot{\epsilon}\nu$ 010 (Op. 569), 733-9 (Op. 765-82), and weather signs (see note on 758-1141). The *Phaenomena* concludes by summing up the lesson on learning the signs throughout the year (1142-54), whereas Op. 822-8 sums up only the section on days.

(c) The Stoic element

While the character and language of the proem are clearly Hesiodic, its content strongly reflects the cosmic beliefs of the contemporary Old Stoa, especially as they are expressed in Cleanthes' Hymn to Zeus. The traditional sky-god Zeus is now presented as the life-giving force that pervades the whole cosmos (Phaen. 2–5; Cl. 1–2, 4–5, 11–13), and since we are a part of the cosmos and derive life from that force, we can still describe Zeus as the father of men (5, 15; Cl. 34). This god is also envisaged as a rational providence that directs everything for the best (5–9, 11–13; Cl. 2), and can therefore be seen as a benefactor of men (5, 11–13, 15; Cl. 32–4). For the purpose of the Phaenomena the most significant act of the cosmic Zeus was to establish in the sky constellations and bright stars to be used as guides to the



THE PHAENOMENA

climate of the ever-changing year (10–13). From time to time throughout the rest of the poem A. reminds the reader of this beneficent Zeus, e.g. in 265 Ζεὺς δ' αἴτιος, referring to the most important of all seasonal risings and settings, those of the Pleiades, and in 771 Ζεύς· ὁ γὰρ οὖν γενεὴν ἀνδρῶν ἀναφανδὸν ὀφέλλει, a general restatement of the helpfulness of Zeus.

But Zeus in the Phaenomena appears in a variety of different characters (see note on 1 ἐκ Διὸς ἀρχ.). Already in the proem the epithet ήπιος (5) suggests an anthropomorphic god of the traditional religion, and is chosen because A. wishes to contrast the new Zeus with the angry god of the Works and Days (47). Similarly in 426 Διός παρανισσομένοιο he is the traditional weather-god responding to human prayers, while elsewhere he can relentlessly send frost (293), storm (886) or rain (936). In other contexts he is the Hesiodic mythological god (31), is slyly hinted at (99), is associated with the Goat and Kids (163-4), and related to Cepheus through Io (181). Again Zeus as the sky itself (224, 259, 756) can suggest both the primitive god and the Stoic god, and in the phrase έν Διὶ πατρί (253) these two extremes are amusingly merged with the mythological god who is known as the father of Perseus.

Wherever Zeus is named, however, there may be an intended reminder of the god of the proem, and the proem's essential message, his establishing of reliable signs for the benefit of men, is illustrated in detail throughout the remainder of the *Phaenomena*. Hence B. Effe, *Dichtung und Lehre* (1977) 40–56, basing his argument on the repeated reference to the signs and the insistence on their usefulness, suggests that A.'s higher purpose was to promote the religious dogma of the Stoics, by showing how the celestial phenomena communicate to men the wonder of the divine providence. But his case is somewhat overstated; see E. J. Kenney, *CR* 29 (1979) 72. In addition to the criticisms made by Kenney several others may be worth considering.