

trol of his father's chariot and scorched a fresh circuit in heaven. Manilius reiterates the point in 4.834–40 and concludes that “all things change over a long period of time; then they return again to their old selves: *in semet redeunt* (839).”

Philoponus says the visionary Empedotimus once called the Milky Way “the roadway for the souls traversing the Unseen World (i.e. Hades) that is in the sky” (On Aristotle, *Meteorica* 1.8). Bolton comments:

. . . For Empedotimus the circle of the Milky Way is at the same distance from the earth as the circle of the sun—it is the boundary of Pluto's realm, Hades. This would accord with a Pythagorean belief that the Milky Way marks a former orbit of the sun (Arist. *Met.* 1.8 345<sup>a</sup> 14).<sup>65</sup>

We should surely add D'Arcy Thompson's observation of the swan, cited earlier: “the stellar Swan lies in the Milky Way, ‘the River of Heaven.’” This northerly swan constellation emerges, then, from the wreck of Phaethon's chariot, from the River of Heaven.

At the heart of the swan myth is its astral significance. Phaethon “dirtied up the clean universe with his ashes—*Phaethontea mundum squalere favilla* (*Thebaid* 1.221),” not just the earth. When he died the swan became a star. Perhaps, when things “revert to their previous state,” the swan star will again become the swan sun, much as Plato's fallen soul in the *Phaedrus* will grow its wings and fly again.

### VIII. Amber and the sun

Like Delos before Apollo's birth, the river Eridanus migrates about the map, and, from Aratus' time, becomes a constellation, replacing the older “River” (*Phaenomena* 359–60). In astral terms the Eridanus is a small scale duplicate of the Milky Way. So we must preface any discussion of the Eridanus with the caveat that it leads two existences, like Heracles' wraith in the *Odyssey*, one among the gods.

Ancient tradition generally has Phaethon fall into the Eridanus, but does not agree where the Eridanus is. Aeschylus identifies it with the Rhône (fr. 73 Nauck<sup>2</sup> = fr. 107 Mette); Herodotus knew, but did not believe, the tradition that it flowed into the northern ocean where amber is supposed to come from (3.115). Later writers identify it with the Po, even though there is no more trace of amber in the Po than of

<sup>65</sup> Bolton (note 18, above) 202, note 11 and 151–53; Cicero *Rep.* 6.16.

singing swans on it.<sup>66</sup> Amber was probably traded down from north Europe to the Adriatic via Po and the Rhône. But neither river was the *source* of amber.

Amber was prized for its perfume, warmth, electrical properties, and ability to preserve life in its resin.<sup>67</sup> It was a symbol of the sun itself in parts of Baltic Europe. "In the culture of the ancient Balts," Arnolds Spekke notes, "amber discs are the oldest known symbols of sun worship."<sup>68</sup> To Greeks and Romans amber was also suggestive of the sun. Pliny (*NH* 37.31) says amber is called *electrum* because the sun is called *elector*; and Homer compares an amber necklace to the sun in *Odyssey* 18.296.

The two northern sun symbols, swans and amber, surely met in the Baltic, and along the western "amber shores" of Jutland, the areas producing the traceable amber of European antiquity. For it has been established that most amber in Mycenaean sites is Baltic.<sup>69</sup> The amber sources were reached in antiquity from the Black Sea, up the Bug and Dniester rivers, thence to the Vistula and out into the Baltic; the return route would have followed the Oder or Elbe, then the Rhine to the Saône/Rhône or the Po.<sup>70</sup> And the possibility of seaborne trade between Greece and northern Europe is finally being seriously considered. Harding and Hughes Brock suggest seaborne as well as river trade occurred between the Baltic and Greece in three phases: "about 1600 B.C., possibly also about 1500 B.C., and about 1200 B.C." After that, reduced trade reached Greece via the Adriatic. The Britons, they suggest, may have served as middlemen between the Mycenaean buyers and the

<sup>66</sup> Marseilles, at the estuary of the Rhône/Saône "Eridanus," was founded by Phocaeans who fled from Asia Minor in 540 B.C. Before leaving they threw red hot iron into the sea (Herodotus 1.165). For the Po as an amber source, see Krappe (note 37, above) 354–56.

<sup>67</sup> See Pliny, *NH* 37.30ff; Martial, *Epigrams* 4.32; 59; 6.15. Martial suggests insects preserved in amber have eternity as jewels.

<sup>68</sup> *The Ancient Amber Routes and the Geographical Discovery of the Eastern Baltic* (Stockholm 1957) 3; cf. T. Sulimirski, *Prehistoric Russia* (London 1970) 270–76.

<sup>69</sup> See A. Harding and H. Hughes Brock, "Amber in the Mycenaean World," *BSA* (1974) 145–70, with an appendix by C. W. Beck, pp. 170–72. For Beck's other works, see their footnotes 2, 46–48, and 50.

<sup>70</sup> See Spekke (note 68, above) passim; also C. F. C. Hawkes, *Pytheas: Europe and the Greek Explorers* (Oxford 1975) 4–7; S. Piggot, *Ancient Europe* (Edinburgh 1965) 189–99; J. M. de Navarro, "Prehistoric routes between Northern Europe and Italy defined by the amber trade," *Geographical Journal* 66 (1925) 481–507.

amber harvesters; but they decline to speculate whether the sea-traffic went on Mycenaean or British ships.<sup>71</sup>

For amber the middlemen would probably have traded tin, without which the Bronze Age could not have happened. Experts on ancient metallurgy agree “there is now good evidence for trade in amber and tin between northern Europe and the British Isles, and some evidence for the extension of this trading pattern down the river valleys of Europe into the Mediterranean and Adriatic.”<sup>72</sup> The Greeks either went north for tin or north Europeans brought it to Greece by trade or by southward migration.<sup>73</sup> There is a parallel between the southward migration of the solar swan and the trade in **Baltic amber** and **British tin**.

Greek land and sea contact with north Europe in the Bronze Age must not be ruled out because later generations did not have such contact. This would be like saying that trade between Britain and the Mediterranean before the Arab conquest of Spain and Morocco is

<sup>71</sup> Note 69, above, pp. 152–53. In late Helladic I and II, they note, amber imports were, with the exception of Thebes, restricted to the Peloponnese, and might have come down by a chain of gift exchange.

<sup>72</sup> R. Maddin, T. S. Wheeler, J. D. Muhly, “Tin in the Ancient Near East: Old Questions and New Finds,” *Expedition* 19.2 (1977) 35–47 (p. 42); cf. J. D. Muhly, *Copper and Tin: The Distribution of Mineral Resources and the Nature of the Metals Trade in the Bronze Age*, *Trans. Conn. Academy of Arts and Sciences*, 43 (March 1973) and his *Supplement to Copper and Tin*, *ibid.* 46 (May 1976) (Hamden, Connecticut) 77–136. H. McKerrell, “The Onset of Tin Bronze Usage in the Near East and Western Europe,” in *The Search for Ancient Tin* (Washington, D. C. 1978) shows that the further east one moves from the tin sources in Britain and the Atlantic coast, the lower the percentage of tin in the bronze. Diodorus 5.22 tells of the overland transport of tin in classical times; Caesar *BG* 6.17, says the Celts’ chief god and patron of all arts was Mercury, whose metal was tin; tin is *the* metal of Celtic Europe and the West. In Plato’s Atlantis, set up in concentric circles as ancients thought the planets were, the inner circle around the central island was coated with tin; cf. Proclus on *Timaeus* 14B and Bouché-Leclerc (note 54, above) 315.

<sup>73</sup> “The Mycenaean would not themselves have gone to Northern Europe or the British Isles, but would have become prosperous by controlling the southern—presumably maritime—end of the trade-route,” Maddin, Muhly, Wheeler (note 72, above) 42; cf. Harding and Hughes Brock (note 71, above) 159. On movements of people in the late Bronze Age see *Bronze Age Migration in the Aegean*, ed. R. Crossland and A. Birchall (Park Ridge, New Jersey 1974); J. Chadwick, “The Prehistory of the Greek Language,” *CAH*<sup>3</sup> 2.2, 805–19; F. A. Winter, “An historically derived model for the Dorian Invasion,” *Symposium on the Dark Ages in Greece* (Philadelphia 1977) 60–71, argues that Hellenistic Celtic settlements in Asia Minor may be a model for what happened in the late Bronze Age: “it cannot be assumed that the presence of foreign settlers like the Hellenistic Celts and the Bronze Age Dorians will be manifest in archaeological materials of the kind that have been the focus of study in the past” (p. 65).

unthinkable because it was rare after the conquest. The rise of Carthage, the struggles with the near East, Celtic expansion and bellicosity in the Hallstatt and La Tène periods, would have decreased trade contacts between Greece and the north in Classical times.<sup>74</sup> Further, **the decline of bronze in favor of iron** reduced the critical need for such contact.<sup>75</sup>

When Greeks began to find their way to North Europe as Carthage weakened—or ceased to be hostile—they were quite possibly *rediscovering* old routes, not finding routes for the first time. Past memories were preserved in myth and local tradition, and were regarded with considerable suspicion. One such tradition is found in the myth of Phaethon and Cygnus.

The Hellenistic Greek credited with the (re)discovery of north Europe is Pytheas of Marseilles, who travelled around Britain, into the North Sea and the Baltic. His voyage was made about a century before Apollonius' *Argonautica*—a fact of importance for interpreting the epic—some time between 326 and 265 B.C.<sup>76</sup> Modern scholars accept his voyage as genuine, though they differ as to where he went. Most ancients were skeptical, as Lucian was, of all travellers' tales.

The part of Pytheas' journey that concerns us is reported by Pliny, *NH* 37.35–36. Pytheas reported that a people named Gotones (Goths, probably) live near an inlet of Ocean, named Metuonis, which extends for 6,000 stades.<sup>77</sup> A day's sailing away is an island named Abalus (or Abalum) to which, in springtime, matter is washed up from the frozen

<sup>74</sup> On the later decline of trade between Greece and the north, see Hawkes (note 70, above); R. Carpenter, *Beyond the Pillars of Hercules* (New York 1966) 190–98; P. J. Wells and L. Bonfante, "West Central Europe and the Mediterranean: the decline of trade in the fifth century B.C." *Expedition* 21 (1979) 18–24 do not mention Carthage.

<sup>75</sup> On iron in Greece, see T. Wertheim, "Pyrotechnology: Man's first industrial uses of fire," *American Scientist* 61.6 (1973) 670–82, especially 674 and fig. 5. The earliest iron used seems to have been meteoric, "iron from heaven": see R. Maddin, "Early iron metallurgy in the Near East," *Transactions of the Iron and Steel Institute of Japan* 15 (1975) 59–68, especially 61–62.

<sup>76</sup> See K. G. Sallmann, *Die Geographie des Älteren Plinius in Ihrem Verhältnis zu Varro* (Berlin 1971); Hawkes (note 70, above); Carpenter (note 74, above) 143–98; D. Stichtenoth, *Pytheas von Marseille: über das Weltmeer* (Cologne 1959); cf. F. Kaehler, *Forschungen zu Pytheas' Nordlandsreisen* (Halle 1903). Hawkes argues for the earlier date, around 320 B.C., Carpenter for the later.

<sup>77</sup> Some MSS read *Guionibus*, an otherwise unknown people; A. H. Krappe, "Avallon," *Speculum* 18 (1943) 303–22 (p. 302) suggests *Teutonibus*, which is unlikely and unnecessary. *Gutonibus* or, better, *Gotonibus* is the most sensible, yielding "Goths" who, in Ptolemy's time, were living in Götaland in Southern Sweden, close to where scholars place the amber islands.

sea: *concreti maris purgamentum*. The inhabitants use it as wood for fire—*pro ligno ad ignem*—and sell it to their neighbors the Teutoni. Timaeus, Pliny adds, believes this, but calls the island Basilia. It is certain, he continues (37.42) that amber is created—*gigni*—in the islands of the northern Ocean and that it is called *glaesum* by the Germans. Hence Roman troops called one of the islands *Glaesaria* when Germanicus campaigned there (A.D. 16). In *NH* 4.104 Pliny confirms his report. Across from Britain in the German Sea are the *Glaesariae* which more recent Greek travellers have called *Electrides* because *electrum*, i.e. amber, is born there (*nascetur*).<sup>78</sup>

Pliny uses a lot of Varronian etymologies in his discussion of amber, as the excerpts show. The notion of fire in wood, *ignis in lignis*, which Lucretius (1.891–92) mocks, appears in Pliny's *pro ligno ad ignem*. His odd use of verbs indicating birth, and, in the case of *gigni*, fiery birth, shows his awareness of the myth of amber's "birth." His statement that amber is called *electrum* because *elector* was a name for the sun reminds us that amber is a sun "product."

Pliny correctly identifies *glaesum* as the (Germanic) word for amber. It comes, as does *kyknos*, from a root meaning "shine," whence the English "glisten" and the modern direct derivative "glass." The amber islands, then, are shining islands, appropriately linked with the sun and the swan.<sup>79</sup>

## IX. Cronus and his sea

We have seen that Apollo's mother and his temple, replete with swans, are associated with a Hyperborean island. Is there a northern island, corresponding to Delos, that would explain these Greek legends that seem related to or derived from Northern tradition?

Pliny in *NH* 4.95–96 describes the northern amber coast as extending from the river Parapanisus (which seems to be in the east) to the promontory of Rusbea. The sea on the eastern side of the promon-

<sup>78</sup> For Timaeus see Sallman (note 76, above) 75–84. Diodorus 5.23 helps: opposite Scythia and above Gaul is an island in Ocean called Basilia where amber which occurs nowhere else on earth is found; cf. Pliny, *NH* 4.95 who reports that Xenophon of Lampsacus (see Sallman, p. 85 and note 96) called the island Baltia; Pytheas, Basilia.

<sup>79</sup> On the etymology of *Glas* and its relationship to *OE glaer*, see F. Kluge, *Etymologisches Wörterbuch der Deutschen Sprache* (Berlin 1967) s.v. "Glass"; cf. C. T. Onions, *Oxford Dictionary of English Etymology* (Oxford 1966) s.v. "glass"; cf. the notes on "Schwann" and "Swan" and their derivation from an IE root meaning "sound"; cf. Sanskrit *svanás*, "noise." "Swan" is the singing swan.