

Surviving Sources of the Classical Geographers Through Late Antiquity and the Medieval Period

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The canonical texts through which Greek geographical knowledge passed into the Latin world belong to the first century A.D.: they are the *Chorography* of Pomponius Mela¹ and the geography books (3-6) of Pliny the Elder's *Natural History*. Neither Mela nor Pliny can be called geographers in the modern sense of the term, for their geography was acquired from books and destined for school use or to satisfy the encyclopedic curiosity of the erudite. This conception of geography lasted a very long time. It was only much later, beginning in the ninth century, that a new conception of geography developed, based not only on the classical tradition, but also on accounts of voyages rich in elements of fantasy, and on the direct experience of the narrator which, again, was not always free of marvels and the supernatural. The aim in this paper is to follow the evolution of this thread of classical geography from late antiquity through to the mixture of tradition and innovation which succeeded it in the medieval period, without any pretensions to being exhaustive in the naming of authors, and limiting the geographical region discussed to the north.

The northern coasts of Europe and Asia were imagined by the ancients as being almost rectilinear, interrupted only by the Chersonesus Cimbrica (Jutland) and by two gulfs: the Gulf of Codanus (the Baltic Sea), rich in islands of which Scandinavia was the biggest; and the Caspian Sea. Between the Gulf of Codanus and the Caspian Sea were the Rhiplean Mountains and the mythical Hyperboreans. Beyond the Caspian Sea data became sketchy. The ancients knew only that at a certain point the coast slanted towards the south, skirted by the eastern ocean, until it reached India.

The theory in which the Caspian Sea was imagined as a gulf of the northern ocean goes back to the Greeks. It is certainly found in Eratosthenes (Berger, 1964 [1880]:94ff., 323-327)² and was perhaps already present in Hecataeus of Miletus.³ Herodotus thought the exact opposite⁴ but his opinion, which was afterwards found to agree with geographical reality, was probably supported only by Ephorus⁵ and later Ptolemy.⁶ Mela,⁷ Pliny,⁸ and Strabo⁹ affirmed that the Caspian Sea connected with the northern ocean, and this was believed for several centuries. The theory was upheld by Denis the Perihetege¹⁰ and his translator Avienus,¹¹ by Solinus,¹² by Orosius,¹³ in the *Cosmography* of Julius Honorius,¹⁴ by Martianus Capella,¹⁵ Isidore of Seville,¹⁶ and by Cosmas Indicopleustès (sixth century), the bizarre author of the *Topographia Christiana*.¹⁷ In the ninth century Mela (1, 9-13) was transferred by Anonymous of Leyden in his *De situ Orbis* (2, 1, 5-8) (Quadri,

1974:46). Even at the beginning of the fourteenth century this tradition was being carried on by Paulinus of Venice. In the planisphere annexed to his treatise *De Mapa Mundi*,¹⁸ the Caspian Sea is shown in its actual location by the "sea of Sara", but near a gulf in the northern ocean one finds *Mare Caspium*. This is not really surprising, given that he cited among his sources Pomponius Mela, Solinus, Orosius, and Isidore (Almagià, 1944:4).

I shall now dwell for a moment on the islands of the northern ocean, first of all on Ireland, which demands thorough study. In Latin, Ireland is generally called *Hibernia*, *Hybernia* (or *Ybernia* according to later writings). Mela (3,53) and Juvenal (2,160) put *Iuverna*, in keeping with the Greek *Ἰουερνία*, which is vouched for by Ptolemy (2,2 etc.; in Greek the usual form is *Ἰέρωνη*). The form *Hiverne* is isolated, known only by the Claudians (fourth consulate of Honorius 33: "*glacialis Hiverne*"). Perhaps this author felt the etymological link with the adjective *hibernus*.¹⁹ The name "Ireland" appeared for the first time, to my knowledge, with Adam of Bremen in the eleventh century.²⁰ As for its orientation, according to Caesar and Tacitus, Ireland was west of Great Britain in the direction of Spain.²¹ For Pomponius Mela (3,53) Ireland was, in a general way, "*super Britanniam*" (above Great Britain); *super* here probably means "to the north", and the same meaning is found in Pliny's *Natural History* (4,103): "*super eam [that is to say Britanniam] haec [Hibernia] sita*". I am well aware of the relative meanings of *super* to the writers of geography, and that *super* in the two passages quoted from Mela and Pliny could also mean "to the west" (Sturenburg, 1932:30), but I think that Mela and Pliny had before their eyes a source similar to that used by Strabo (2,115) when he wrote: [*Ἰέρωνη*] *πρὸς ἄρκτον πρόκειται τῆς Βρετανικῆς πλησίον*. Subsequent authors appear to have been little interested in localizing Ireland. Orosius (1,2,39, p.66 in Riese's edition of *Latin Geographers*) repeats Tacitus: "*Hibernia insula inter Britanniam et Hispaniam sita*", and he was compiled in turn by Paulinus of Venice: "*Ybernia autem insula est inter Britanniam et Hispaniam versus occasum*" (Vaticanus Latinus 1960: f°21^r). Between the twelfth and thirteenth centuries Giraldus de Barri (called *Cambrensis*²²) restricted himself to saying "*Hibernia . . . in occidentali oceano sita est*".

As for the extent of the island, Caesar states that the surface of Ireland is half that of Great Britain: "*Hibernia, dimidio minor ut existimatur, quam Britannia*" (*Gallia Wars* 5, 13, 2). Tacitus also thought that Ireland was smaller than Great Brit-

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ain: *spatium eius [Hiberniae] si Britanniae comparetur, angustius*" (*Agricola* 24, 2). Orosius followed Tacitus (1, 2, 39, p.66 in Riese's *Latin Geographers*): "*Haec [Hibernia] spatio terrarum angustior*", and Paulinus of Venice followed Orosius: "*Ybernia... Britannia angustior*" (Vaticanus Latinus 1960:f°21^r).

On the other hand, Pomponius Mela (3,53) thought the surfaces of the two islands to be almost equal ("*super Britanniam Iuverna est paene par spatio*"). Mela's account came, perhaps, from Agrippa (in Pliny's *Natural History*, 4,102; p.5 in Riese's *Latin Geographers*: "*Agrippa longitudinem DCCC esse [Britanniae], latitudinem CCC credit, eandem Hiberniae, sed longitudinem CC minorem*"). As one can see, Agrippa perceived the length of Ireland to be less than that of Great Britain by 200 000 paces, whereas the breadth was thought to be identical. Pomponius Mela, in synthesizing the data and leaving out the numbers, which he often did,²³ could therefore easily say that the surface of Ireland was almost equal to that of the larger island.

Solinus (22,2) repeated Mela: "*Multis insulis nec ignobilibus circumdatur (Britannia), quarum Hibernia ei proximat magnitudine*." Solinus was in turn taken up and repeated by Dicuil (8,21),²⁴ as Mommsen showed in his edition.²⁵

Mommsen did not say that this passage on *Hibernia* from Solinus was later collected by Anonymous of Leyden (1,13,28) and later still by Giraldus (*Topographia Hibernica* 1,3). Both of them, however, misunderstood their source, and in an unworkmanlike fashion, for it continued thus: "*inhumana incolarum ritu aspero*". In fact, Anonymous wrote: "*Hibernia ei [Britanniae understood] proximat incolarum ritu aspero*"; Giraldus wrote "*insulam [i.e. Hiberniam] inhumanae magnitudinis esse testatur [i.e. Solinus]*".

Giraldus made another gross error when he confused the width of the arm of the sea separating Ireland and Great Britain with the width of Ireland. Solinus (22,6) in effect established the distance by sea between the two islands as 120 000 paces (for Pliny in his *Natural History* [4,103], the minimum distance is 30 000 paces) but Giraldus misunderstood this and thought that the number quoted concerned the width of Ireland. Solinus wrote (22,5-6): "*mare quod inter hanc [i.e. Hiberniam] et Britanniam interluit undosum inquietumque toto in anno nonnisi pauculis diebus est navigabile, idque in centum viginti milia passuum latitudinis diffundi qui fidem ad verum ratiocinati sunt aestimarunt*." How can one explain Giraldus's confusion? He probably had one of Solinus's manuscripts in front of him in which, instead of *idque*, he read *itaque*, as is the case in Solinus's Heidelbergensis MS and in Anonymous (in the passage quoted above), but not in Dicuil (8,22) who, on the contrary, has *idque*. With *idque* it is not possible to make a mistake but the reader who read *itaque*, especially if he read it carelessly or rapidly, could be led to think that the subject of the complementary clause was *Hibernia*, the island which is the principal subject of the chapter. To conclude, Giraldus, combining the two errors, wrote: "*Solinus vero in centum viginti milia passuum satis exquisitae latitudinem Hiberniae diffundi describit: sed de longitudine*

tacet. Quam et ob hoc arbitror ipsi incognitam, quoniam insulam inhumanae magnitudinis esse testatur." Elsewhere it is clear that he knew that the surface of Great Britain was double that of Ireland by linking it with the tradition that goes back to Caesar and Tacitus (*Topographia Hibernica* 1,2: "*Britannia... duplo in quantitate Hiberniam excedit*").

Mela observed (3,53) that Hibernia has an elongated shape ("*utrimque aequali tractu litorum oblonga*"). This information survived with Orosius (1,2,39, p.65 in *Latin Geographers*): "*Hibernia... longiore ab africo in boream spatio porrigitur*", and was compiled in the work of Paulinus of Venice (Vaticanus Latinus 1960, f°21^r): "*Ybernia... ab africo in boream extenditur*".

Concerning the fertility of Hibernia, Tacitus (*Agricola* 24,2) thought it was not inferior to that of Great Britain: "*solum caelumque et ingenia cultusque hominum haud multum a Britannia differunt*" (in his *Life of Agricola* [12,5] Tacitus had defined the soil of Great Britain as "*patiens frugum, fecundum*"). Mela before him (3,53) had amplified the information concerning fertility by a *topos* which was used by other authors similarly about Spain (Justin 44,4,14), Catania (Strabo 9,269), and Mesopotamia (Quintus Curtius 5,1,12): the pastures of Hibernia are so fertile that small cattle would burst if they were not prevented from stuffing themselves with fodder ("*caeli ad maturanda semina iniqui, verum adeo luxuriosa herbis non laetis modo sed etiam dulcibus, ut se exigua parte diei pecora impleant, et nisi pabulo prohibeantur, diutius pasta dissiliani*"). This information is in Solinus (22,2): "*Hibernia... ita pabulosa, ut pecua, nisi interdum a pastibus arceantur, ad periculum agat satias*." From Solinus this devolved on Anonymous of Leyden (1,13,28) and Dicuil (8,21). There is no trace of this notion in Giraldus (1,3) who, however, knew through Orosius (1,2,39, p.66 in Riese, *Latin Geographers*), Isidore (*Etymologies* 14,6,6), and Bede (*Ecclesiastical History* 1,1) that even if Ireland was smaller than Great Britain, it was favoured by a better climate and more abundant crops.

As for the character of the Irish, Mela (3,53) took up an old *topos* which is also found in Strabo (4,201). To Mela, the *cultores Iuvernae* were "*inconditi... et omnium virtutum ignari (magis) quam aliae gentes, pietatis admodum expertes*".²⁶ To Solinus also (22,2-3), Hibernia was "*inhumana incolarum ritu aspero*" and its inhabitants an ignorant and warlike people who did not know how to distinguish justice from injustice ("*gens inhospita et bellicosa... fas et nefas eodem loco ducunt*"). This unfavourable judgment about Ireland is also found in the *Cosmography* of Aethicus Ister (25: "*Inperitos habet [Hibernia understood] cultores et instructoribus habet destitutos habitatores*"), but it is not said that this passage came down directly from Mela as Billanovich (1958:82) assumes.²⁷ Nor did Giraldus show more goodwill towards the Irish: their customs were "*barbarissimi*" to him (*Topographia Hibernica* 3,10) and the people themselves were "*gens spurcissima, gens vitiis involutissima, gens omnium gentium in fidei rudimentis incultissima*" (3,19). It is interesting to note here that in Vaticanus Latinus 4929 from the second half of the ninth century (which is the archetype of the

Pomponius Mela tradition), after the negative judgment on the Irish, one reads: “*aliquatenus tamen gnari*”. It is clear that this is a gloss that the copyist of the Vatican manuscript must have transcribed from his model, thinking that the gloss belonged to the original text. The manuscript on which Vaticanus Latinus 4929 depends was written in Ravenna in the sixth century. Between the sixth and ninth centuries, it must have fallen into the hands of an Irishman or someone well-disposed towards the Irish.²⁸ An analogous attitude is found in Dicuil (8,21), who quoted Solinus but omitted this negative judgment on the Irish, probably through a spirit of patriotism (see Tierney, 1967:121).

In contrast with Anonymous of Leyden, who was a clumsy compiler (though it is remarkable that the work of an author such as Pomponius Mela (Quadri, 1974:XIII) survived into the ninth century), Giraldus discussed the classical sources he used, and brought up to date or corrected information founded on tradition. Bede had claimed that Ireland was not without vines (*Ecclesiastical History* 1,1: “*nec vinearum experts*”), whereas Giraldus put forward the opinion that the island had always been without vineyards but not without wine. Moreover, the wine was imported in such great quantities that the absence of vineyards was scarcely noticed.²⁹ However, Giraldus excuses his source by saying that perhaps in Bede’s time vines were cultivated.³⁰ Solinus (and Isidore, who repeated him) stated that not only were there no bees in Ireland, but the soil was so harmful to them that Irish earth distributed around beehives in other places dispersed them.³¹ Giraldus, on the contrary, stated that it was possible that there were no bees in Ireland at all in Solinus’s time, but that they were imported later; he even gave the name of the person who was reported to have introduced them.³² It seemed to him less excusable for Solinus and Isidore to have believed in the noxious effects of the Irish soil on beehives.³³ After contradicting Bede about the existence of deer and goats in Ireland, Giraldus concluded with a surprisingly modern reflection: these *auctores* often made mistakes because they did not base their information on direct personal experience but on the evidence of others, and in the sphere of geography it is better for the author and witness to be one and the same person (*Topographia Hibernica* 1,6: “*nec mirum si a tramite veritatis interdum deviaverint [i.e. Isidore and Bede], cum nihil oculata fide, nihil nisi per indicem et a remotis agnoverint. Tunc enim res quaelibet certissimo nititur de veritate subsidio, cum eodem nititur relatore quo teste*”).³⁴

It might be expected, after this, that Giraldus was unlikely to include *mirabilia* in his work, but it is just the opposite. The *distinctio secunda* of the *Topographia Hibernica* is given over to accounts of the miraculous and incredible (*De mirabilibus Hiberniae et miraculis*), which, however, to cover himself against possible objections, Giraldus qualified as being things he had seen with his own eyes or knew from trustworthy witnesses. He must have already been attacked by his contemporaries for this incoherent or naive approach, for in the preface to his *Expugnatio Hibernica*, he defended himself against the charge of inventing false stories by inviting his detractors to condemn the sacred texts on the same grounds, as

well as the texts of such classical authors as Pliny, Valerius Maximus, Trogus Pompeius, and Solinus.³⁵

It is clear, therefore, that Giraldus, between the twelfth and thirteenth centuries, felt that he still belonged to the geographical tradition going back to Pliny. Yet he preached an exigency that foreshadowed a new outlook—that of the need to base geographical narration on eyewitness accounts—even though he did not always have the means to practice it. While it is true that Giraldus’s knowledge of Ireland was very limited and his contact with the Irish people very superficial (Dimock, 1867:LXII), his desire to investigate the truth of his sources, to replenish the tradition he understood, but to interpret and reexamine it in light of his own culture, was remarkable in his epoch.

Let us now consider the Orkney Islands. We know from Tacitus that they were first explored and subjugated by Agricola.³⁶ They were already known to Mela and Pliny, but there was strong disagreement as to their number. For Mela (3,54) there were 30; for Pliny (*Natural History* 4,103) followed by Martianus Capella (6,666) there were 40; for Orosius (1,2,37, p.65 in Riese’s *Latin Geographers*), Isidore (*Etymologies* 14,6,5), Jordanes (*Getica* 1,8), Anonymous of Ravenna (442,4 in the Parthey-Pinder edition—where, however, they are called “Dorcades” — as in Honorius of Autun [1,31]),³⁷ and Paulinus of Venice, who quoted Isidore (Vaticanus Latinus 1960, f°21r) there were 33; for Ptolemy (2,3,14), there were about 30 (περὶ τριακοντα τὸν ἀριθμὸν). In complete disagreement with this number were Solinus (22,16) and the *Antonini Itinerarium* (508,5 Wesseling), for whom there were only three Orkney Islands. Orosius, followed by Isidore (compiled by Paulinus) added that of the 33 islands, 20 were uninhabited and 13 inhabited.

Adam of Bremen cited as his sources on the Orkneys Martianus Capella and Solinus, but in reality he was quoting Orosius and Martianus (4,34): “*De quibus [Orcadibus understood] Romani auctores Martianus et Solinus ita scripsisse videntur: A tergo Britanniae, unde infinitus patet oceanus, Orchadae sunt insulae quarum 20 sunt desertae, 16 coluntur. Orchades insulae paene 40 iunctae.*” Compare this with Orosius’s text (quoted above), which says: “*a tergo autem, unde oceano infinito patet [Britannia understood], Orcadas unsulas habet, quarum XX desertae sunt, XIII coluntur*”, and with Martianus (passage quoted): “*Orcades quadraginta paene iunctae.*” As one can see, these two quotations have been completely changed by Adam. For Orosius, the subject of *patet* has been changed and the inhabited islands have become 16. For Martianus, the changed order of the words alters their meaning completely. In fact, for Martianus the Orkneys had “*paene iunctae*” between them (as in Pliny, the passage quoted: “*modicis inter se discretas spatii*”), while for Adam they were “almost 40”.

What vestiges of ancient geographical tradition remained in the work of Adam of Bremen? A few fragments, known indirectly perhaps,³⁸ badly passed on or badly put together and of uncertain meaning, yet Adam—like Giraldus—fell for the charm of Romanism. What he had to say is found in the Roman authors, which was enough to authenticate it and add

prestige to his learning. But Adam, like Giraldus, was not content merely to repeat data gathered in a rather clumsy way from tradition. He was not just an unsophisticated collector of the incredible and miraculous. His work is very important to our knowledge of the northern regions in the eleventh century. For example, he was the first to speak of Greenland (4,36: "*Sunt autem plures aliae in oceano insulae, quarum non minima Gronland, profundius in oceano sita*"), and he was the first to speak of the mysterious island of Vinland (4,38), which some scholars recognize as a part of North America.³⁹ He told of a polar expedition undertaken 40 years earlier by the Frisians who left Bremen *causa pervagandi maris*. The accounts of these voyages were often pure fantasy (the polar explorers landed on an island inhabited by giants similar to the Cyclops and had difficulty in escaping the bites of their dogs (4,40), but they were based on historical fact and the sources are viable: "*certa comperimus relatione Danorum*" (for Vinland) (4,38), "*nobis retulit beatae memoriae pontifex Adalbertus*" (for the polar expedition) (4,39). A reading of the classical geographers and of reports on the voyages, the traditions, and the spirit of a new age all converged in Adam's work. The results are often uncertain or contradictory and they do not always correspond to their logical premise, but it is still striking that an eleventh-century geographer could combine a feeling for the heritage of the past and remain open to new geographical experience founded on actual exploration and data.

Ancient geographers knew of the Scandinavian peninsula as a large island in the Baltic Sea of which they knew only the southern part (see Pliny, *Natural History* 4,96): "...*sinum, qui Codanus vocatur, refertus insulis, quarum clarissima est Scatinavia, incomptae magnitudinis, portionem tantum eius, quod notum sit, Hillevionum gente quingentis incolente pagis: quare alterum orbem terrarum eam appellant.*" Pliny's passage may help to correct the corresponding passage in Pomponius Mela (3,54), which is badly written, in Vaticanus Latinus 4929: "*in illo sinu, quem Codanum diximus, ex iis Codannovia, quam adhuc Teutoni tenent, et ut fecunditate alias ita magnitudine antestat.*" According to Svennung (1963:12), we should above all read *Scadinavia* in place of *Codannovia*. The error probably occurred in two ways: 1) by haplography of the initial *s* in *Scadinavia*; and 2) by modification of the name with *Codanum* which precedes it,⁴⁰ and the addition of *-ovia* which was a common termination for Celtic names (cf. *Gergovia*, *Segovia*, etc.). It also seems to me that *ex iis* can be corrected as suggested by Frick (1967 [1880]) to *eximia* in comparing it with Pliny's *clarissima* (passage quoted), whereas Ranstrand (1971), the most recent editor of Mela, resorts to a cross for the passages beyond hope. In any case, it seems impossible to uphold the solution of Grienberger (1921) who suggested "*exit*" for "*ex iis*". Two more points should be made: after "*tenent*" one should, with Svennung (1963:12) omit "*et*"; and it appears very unlikely that the Teutons ever lived in this region.⁴¹

Mela was copied by Jordanes (*Getica* 3,16) who, however, wrote "*Scandza*". According to Svennung (1963:24, note 6) this could be because Jordanes-Cassiodorus had in his hands a

text of Mela different from our own. One should also bear in mind that Jordanes used a text in very bad condition.⁴²

Scandinavia was also an island to Paulus Diaconus (*History of the Lombards* 1,1) and to Dicuil (7,22), who quoted Pliny (passage cited), but to Adam of Bremen (4,7) it was almost an island ("*ferè insula*"): he knew it was attached by a spit of land in the east to the continent.⁴³ Sweden and Norway were to him, however, almost unexplored regions.⁴⁴ His knowledge went north as far as Hälsingland (4,24); to the east, he said, were the Rhipian Mountains, a desolate region buried in snow and inhabited by legendary creatures and monsters which prevented people from going beyond.⁴⁵ These were the Amazons, Hyperboreans, and griffins of the northern wastes, well known to classical geography,⁴⁶ but also peoples that geographical tradition placed in completely different regions, even at the opposite end of the world in the torrid zone of Africa, such as the Cyclops, the Cynocephales, and the Himantopodes.⁴⁷ According to Adam, the Cynocephales had their heads on their chests (4,19: "*in pectore caput habent*"), a characteristic which classical sources attribute to the African *Blemmyae*.⁴⁸ A similar case to this is that of the *Scritefini*, a northern people on the borders of Sweden and Norway, of whom Adam said that they could run faster than wild beasts (4,24: "*Scritefini, quos aiunt cursu feras praeterire*"), an ability that Solinus (56,9) and Martianus Capella (6,702) attributed instead to the Troglodytes of Africa.

In these instances classical geography is like a deep well into which the medieval geographers could dip at fancy for their own ends.

East of the *sinus Codanus*, opposite the Sarmatian coast, Pomponius Mela (3,56) knew of islands which occasionally joined the mainland because of certain tides. They were inhabited by fabulous people, amongst whom were the *Oeoniae* who fed exclusively on the eggs of marsh birds and on oats ("*Oeoniae, qui ovis avium palustrium et avenis tantum alantur*"). Caesar had spoken before him (*Galic Wars* 4,10,4) of islands peopled by eaters of fish and birds' eggs ("*qui piscibus atque ovis avium vivere existimantur*"), but he situated the islands opposite the mouth of the Rhine and gave no name either for the islands or the inhabitants. Apart from the *Oeoniae*, Mela spoke of other people with equally strange characteristics: the *Hippopodes*, with horses' hooves for feet, and the *Sannali*, who could do without clothing because their ears were so big they could completely cover their bodies with them. It is instructive to read the whole of this passage:

...*quae Sarmatis adversa sunt ob alternos accessus recursusque pelagi, et quod spatia quis distant modo operiuntur undis modo nuda sunt, alias insulae videntur alias una et continens terra. in his esse Oeoniae [oeneas in the MS] qui ovis avium palustrium et avenis tantum alantur, esse equinis pedibus Hippopodas et Panotios, quibus magnae aures et ad ambiendum corpus omne patulae, nudis alioquin, pro veste [the MS has vecti] sint, praeterquam quod fabulis traditur (apud) [added by Wachsmuth] auctores, quos sequi non pigeat, invenio [the MS has invento].*

These data also appear in Pliny (*Natural History* 4,95) but with some notable changes. One can deduce that the position

of the islands is the same from the order of the periplus, but no mention is made of the phenomenon of the tides; and *Oeoniae* is the name of the islands themselves and not of the inhabitants. In addition, the people with the big ears are called *Phanesii* and not *Sannali*, and finally, a clear distinction is drawn among the three groups of islands, each of which is inhabited by a different population: "*feruntur et Oeoniae, in quibus ovis avium et avenis incolae vivunt, aliae, in quibus equinis pedibus homines nascantur, Hippopodes appellati, Phanesiorum aliae, in quibus nuda alioqui corpora praegraves ipsorum aures tota contegant.*"

Pliny's information passed in its entirety to Solinus (19,6-8) and partly through Solinus to Isidore of Seville (*Etymologies* 11,3,19) and Dicuil (7,21). A similar fate to that of the *Oeoniae* befell the *Hippopodes*, who in the *Cosmography* of Julius Honorius (29, p.41 in Riese's *Latin Geographers*) and in that of Aethicus (29, p.85 in Riese), became islands in the northern ocean.⁴⁹

The *Sannali* of Mela became the *Phanesii* of Pliny and Solinus, and *Panotii* in Isidore, who explained the etymology of the name: "*Panotios apud Scythiam esse ferunt, tam diffusa magnitudine aurium et omne corpus ex eis contegant. Πᾶν etiam Graeco sermone omne, ὦτα aures dicuntur.*" In Müllenhoff's opinion (1870:492, note), Isidore could have corrected the name *ex ingenio* or have found it already put right in his source. The *Sannali* of Mela could be "ein Wort der epichorischen Sprache, der die griechische Umsetzung bei Isidor entspricht" as Diehl believes.⁵⁰ In any case I do not think it is necessary to correct *Panotios* in Mela on the authority of Isidore, as Ranstrand (1971) does. Müllenhoff (1870), followed by Much (1928), thought it possible that all the data were derived from a unique source; that of Pytheas of Marseilles, who was the first person to be able to furnish details about these regions.

Further, it is significant that a population with the same characteristics as the *Sannali-Phanesii-Panotii* was known to Strabo in India: Ἐνωτοκοίτας τε ποδήρη τὰ ὦτα ἔχοντας (15,711; see also 2,70 and *Real Encyclopädie*, passage quoted). Thus the fanciful imagination of the ancient as well as of the medieval geographers peopled these unexplored far northern regions with fabulous beings transposed from the traditional repertoire of prodigious physical monsters, of strange customs in the eyes of the civilized world, and of the *topoi*, to brighten the story and fire the reader's imagination.

As is known, Pytheas of Marseilles was the first person to speak of Thule.⁵¹ In Pomponius Mela's opinion this island was situated opposite the coast inhabited by the *Belcae* (3,57). By this name, unknown to other sources, Mela meant, in general, the Scythian population east of the Vistula (3,36: "*nisi ubi perpetuae hiemes sedent et intolerabilis rigor, Scythici populi incolunt, fere omnes et in unum Belcae appellati*"). Thus to Mela *Thyle* was much farther east than in Pytheas's description, where the island was six days' sailing to the north of Great Britain near to the frozen sea (Strabo and Pliny). Pytheas's placing seems to agree better with Tacitus (*Agricola* 10,4: "*Incognitas ad id tempus insulas, quas Orcadas vocant, invenit domuitque [Agricola understood]; dispecta est Thule,*

quia hactenus iussum et hiems appetebat").

Mela (3,57) took more time to describe the phenomenon of the six months' daylight characteristic of *Thyle*, also mentioned by Pliny (passage cited and 4,104, in the edition of Mette F 11b), Solinus (22,9), Martianus Capella (6,666), Isidore (*Etymologies* 14,6,4), Honorius of Autun (1,31), Paulinus (f°21^r), who quoted Isidore, and for the Greeks, Denis the Perihegete (*Perihegesis* 588 et seq., p. 141 in Müller's *Géographes Grecs*, vol. II) translated by Priscian (*Perihegesis* 588 et seq., p. 195 in Müller's *Géographes grecs*, vol. II). Pliny, Isidore, and Priscian were present in Dicuil (7,7-9), but the latter added much that was new about Thule using eye witness accounts that came to him (7,11: "*Trigesimus hunc annus est a quo nuntiaverunt mihi clerici*"). It seems clear that Dicuil identified *Thyle* with Iceland (Letronne, 1814:389), as was the general belief in the Middle Ages (see Adam of Bremen, 4,35: "*Haec itaque Thyle nunc Island appellatur, a glacie quae oceanum astringit*") (Müllenhoff, 1870). Dicuil claimed that Iceland had been explored by the Irish 30 years before the composition of *De mensura orbis* in A.D. 795, whereas we know that the composition of *De mensura* was in A.D. 825. The inference is that the Irish must have discovered Iceland 65 or 70 years before Naddod, the Scandinavian pirate to whom northern tradition ascribes the discovery of this island (Letronne, 1814:139-142).

Thus it can be seen that during the whole of the late period of antiquity and throughout the Middle Ages right up to the dawn of modern times, the writers of geographical treatises were greatly influenced by classical geography. The continuous chain stretches from Pomponius Mela to Pliny the Elder, from Solinus to Isidore of Seville, to Anonymous of Leyden, to Dicuil, Adam of Bremen, and Giraldus Cambrensis. We have seen in a few examples how this chain is weakened at certain points so that the names of some classical geographers are linked with false or completely absurd information. Tribute must, however, be paid to the geographers of late antiquity and of the Middle Ages for taking on the inheritance of a long tradition even when the reflections of that tradition at their disposal were pale, and for understanding the need to stand back from that tradition and innovate under the influence of new interests aroused by new sources of information.

In this way, little by little, bookish and erudite geography gave way to a geography founded on real knowledge of the areas described. Our modern conception of geography owes its existence to this slow but continuous evolution through the ages.

NOTES

¹On the chronology of *Chorographia* (most probably written in the time of Claude) see my remarks in *Rivista di filologia e di istruzione classica* (1979) 107:165, note.

²See *Real-Encyclopädie* X:2280.

³See *Real-Encyclopädie* X:2276.

⁴See Herodote 1,202,4: "*ἡ δὲ Κασπία θάλασσα ἔστι ἑπ' ἑωπῆς, οὐ σμμίθουσα τῆ ἑτέρῃ θαλάττῃ*". See also Diodore (17,5,4) and Aristotle, *Meteorology* 354 a.

⁵See *Real-Encyclopädie* X:2278.

⁶See *Real-Encyclopädie* X:2280.

- 71,9: "ex Scythico [actually oceano] Caspium recipit [add Asia]"; 3,38: "mare Caspium... terras quasi fluvius inrumpit".
- ⁸Natural History 6,36: "inrumpit [add Caspius] e Scythico oceano in aversa Asiae"; 38: "Inrumpit [add Caspius] autem artis faucibus etc."
- ⁹11,507: "Ἔστι δ' ὁ κόλπος (actually ἡ Κασπία θάλασσα)."
- ¹⁰Perihegesis 729 (in *Géographes grecs* by Müller, II:149: "στόμα Κασπίδος ἁλμης."
- ¹¹Descriptio orbis 903 (in *Géographes grecs* by Müller, II:185): "Gurgitis [actually Caspii] oceanus pater est".
- ¹²17,3: "Caspium mare, quod dilapsum per Asiaticae plagae terga Scythicum inrumpit oceanum".
- ¹³1,2,19 (p. 62 in Riese, *Latin Geographers*): "Mare Caspium sub aquilonis plaga ab oceano oritur".
- ¹⁴2 (p. 24 in Riese, *Latin Geographers*): "Ergo oceanus orientalis haec maria habet: mare Caspium etc."
- ¹⁵6,665: "Caspium mare, quod in confinio ortus aestivi Scythicum perumpit oceanum".
- ¹⁶Etymologies 13,17,1: "Sinus dicuntur maiores recessus maris, ut in mari magno Ionius, in oceano Caspius" etc. *De natura rerum* 44,3: "Sinus maiores recessus dicuntur ut Caspius, Arabicus, Indicus" etc.
- ¹⁷4,7: "τὸν Ὀκεανὸν περὶ αὐτῆς (actually θῆς) καὶ ἐν αὐτῇ τοῖς τέσσαρας κόλπους εἰσβάλλοντας τοὺς πλεομένους, Ῥωμαϊκόν, Ἀράβιον, Περσικόν, Κασπίον, ἦτοι Ἐρκανόν" (ed. Wolska; Paris, 1962). See C. Stornajolo (1908:pl. 7).
- ¹⁸Vaticanus Latinus 1960:f°264v. The *De mapa mundi* appears in this manuscript (from which I extract the quotations) on pages 13^r to 21^v. See Almagià (1944:3ff, pl.I); *Manoscritti cartografici e strumenti scientifici nella Biblioteca Vaticana (Mostra organizzata in occasione della IX Conferenza internazionale di storia della cartografia. giugno-dicembre 1981)*; Biblioteca Vaticana 1981, p. 11.
- ¹⁹See *Real-Encyclopädie VIII*(2):1389.
- ²⁰4,10: "Hyberniam, Scotorum patriam, quae nunc Irland dicitur." The fourth book of *Gesta Hammenburgensis Ecclesiae* of Adam of Bremen, entitled *Descriptio insularum aquilonis*, is, as is well known, a real treatise of geography on the septentrional ocean islands. The quotations come from the Lappenberg edition in *Monumenta Germaniae Historica, Scriptores VII* (Hanover, 1846), pp. 367-389. The synonymy between *Hibernia* and *Scottia* is quite frequent in the late antique period and in the Middle Ages. Before Adam it can be found also in Dicuil (7,6; 15); on this topic see Letronne (1814:7). It can even be found at an earlier date in *Ravenna Geography* (440, 1, Parthey-Pinder) and in Ysidorus (*Etymologies* 14,6,6). On Dicuil see further note 24.
- ²¹Caesar, *Guerre des Gaules* 5,13,2: "Alterum [add latus] vergit [add Britannia] ad Hispaniam atque occidentem solem; qua ex parte est Hibernia"; Tacitus, *Agricola* 24: "Hibernia, medio inter Britanniam atque Hispaniam sita".
- ²²*Topographia Hibernica* 1,1. I have been using the J.F. Dimock edition, V (London, 1867).
- ²³For instance, the *Meroe* Island is *late patens* for Mela (1,50) whilst Strabo (17,821) gave its dimensions: length 3000 stadia and width 1000 stadia. On this topic see my contribution in *Rivista di filologia* (cited above), p. 162, note 4.
- ²⁴The Irishman Dicuil wrote his *De mensura orbis terrae* in 825, as we can conclude from the verses which are placed at the end of this little pamphlet (9,13). See Parthey (Berlin, 1870) and also the Tierney edition (with contributions by M.L. Bieler) (Dublin, 1967), from which I have taken the quotations.
- ²⁵C. Iulii Solini *Collectanea rerum memorabilium, iterum recensuit* Th. Mommsen, Berlin 1895 (= 1958), p. 100.
- ²⁶To understand why it was necessary to add *magis*, see my remarks in *Rivista di filologia* (cited above), p. 167, note 4.
- ²⁷Out of this alleged dependence: Billanovich draws also some other conclusions (see note 28).
- ²⁸The author of this gloss is, of course, unknown. Some authors did attempt to identify him with the author of *Cosmographia Aethici Istri*, actually Saint Virgil of Salzburg (see Billanovich, 1958:82; Wilson, 1974:92). It is assumed that Aethicus Ister derived his unfavourable judgment on the Irishmen directly from Mela (see note 27) and more precisely from the most precious manuscript of the sixth century, on which he wrote, as a mark of his reading, the above-mentioned gloss.
- ²⁹*Topographia Hibernica* 1,6: "Vineis enim et earum cultoribus semper caruit et caret insula. Vina tamen transmarina, ratione commercii, tam abunde terram replent, ut vix propaginis proventusque naturalis in aliquo defectum percipias."
- ³⁰*Topographia Hibernica* 1,6: "Verisimiliter autem dici potest, tempore Bedae nonnullas forsitan in insula vineas fuisse."
- ³¹Solinus 22,4: "apis nusquam: advectum inde pulverem seu lapillos si quis sparserit inter alvearia, examina favos deserant." Ysidorus, *Etymologies* 14, 6, 6: "apis nulla, adeo ut advectos inde pulveres seu lapillos si quis alibi sparserit inter alvearia, examina favos deserant" was also compiled by Paulinus of Venice (Vaticanus Latinus 1960, f°21^r: "In Ybernia... nulla apis ita ut si advectos pulveres seu lapillos quis alibi inter alvearia sparserit favos deserant."
- ³²*Topographia Hibernica* 1,6: "Solinus vero et Ysidorus apibus eam [understand Hiberniam] carere asserunt... Verisimiliter autem dici potest... longe post Solini tempora, sanctum Dominicum Ossiriensem, ut asserunt quidam, apes in Hiberniam detulisse."
- ³³*Topographia Hibernica* 1,6: "Ceterum ipsos [actually Solinum et Ysidorum] in hoc excusabiles vix invenio, quod adeo apibus inimicam hanc terram asserunt, ut advectos etiam inde pulveres seu lapillos si quis alibi intra alvearia sparserit, examina favos deserant."
- ³⁴See also what Giraldus stipulated in his preface to his *Distinctio secunda: Sed ita me Dii amabilem praesent, ut nihil in libello apposerim, cuius veritatem vel oculata fide, vel probatissimorum et authenticorum comprovincialium virorum testimonio, cum summa diligentia non elicuerim.*"
- ³⁵*Expugnatio Hibernica*, preface: "Legat [he was addressing a hypothetical critic] Valerium Maximum, Trogum Pompeium, Plinium et Solinum. In quibus omnibus, quae in hunc modum livido dente demordeat, multa reperiet. Legat haec, inquam, et propter prodigiosa quaedam inserta nobilium auctorum opera universa condemnet."
- ³⁶*Agricola* 10,4: "incognitas ad id tempus insulas, quas Orcadas vocant, invenit domuitque"; see also Juvenal 2,160: "modo captas Orcadas."
- ³⁷See Honorius Augustudunensis, *Mundi Synopsis sive de imagine mundi libri tres* (Spire, 1583). Honorius of Autun is part of the twelfth century.
- ³⁸The confusion between Orosius and Solinus might also be a mere *lapsus* but it seems more probable that the wording "scripsisse videntur" indicates a lack of certitude on this specific information that the writer himself did not want to hide entirely from the reader.
- ³⁹See, e.g., *Adamo di Brema* (F. Schneider) in *Enciclopedia Italiana* I:474.
- ⁴⁰In the *Die Heimat der Kimbern* (Uppsala, 1960), p. 33 B. Melin believes also that "Codannovia might have easily derived from the preceding Codanum".
- ⁴¹Melin (1960:39ff.); see note 40.
- ⁴²For example, only such a hypothesis can explain the confusion of Jordanes (*Getica* 46) when he attributed to Borysthenes information in Mela (2,6-7) which is pertinent to the rivers *Hypanis* and *Asiaces*.
- ⁴³4,7: "Sconia est pars ultima Daniae, fere insula; undique enim cincta est mari, praeter unum terrae brachium, quod ab oriente continens Sueoniam disternit a Dania."
- ⁴⁴4,21: "Transeuntibus insulas Danorum alter mundus aperitur in Sueoniam vel Nordmanniam, quae sunt duo latissima regna aquilonis et nostro orbi adhuc fere incognita."
- ⁴⁵4,25: "Ab oriente autem Ripheos montes attingit [add Suedia], ubi deserta ingentia, nives altissimae, ubi monstruosi hominum greges

ultra prohibent accessum."

⁴⁶For the Amazons see Mela (3,34ff.), Solinus (17,3), and Martianus Capella (6,665); for the Hyperboreans see Mela (3,36), Pliny, *Natural History* (4,89 and 6,34), Solinus (16,1ff.), and Martianus Capella (6,664); for the griffins see Mela (2,1), Pliny, *Natural History* (7,10), and Solinus (15,22). The Arabic geographer Idrisi (about 1099-1162) also mentioned two islands attributed to Amazons (Tallgren-Tuulio and Tallgren, 1930:38; Tuulio (Tallgren), 1936:23).

⁴⁷The presence of the Cyclops has been imagined in Sicily (Mela 2,119; Solinus 5,14), the Cynocephals in Ethiopia (Pliny, *Natural History* 8,216; Solinus 27,58), the Himantopodes also in Ethiopia (Mela 3,103; Pliny, *Natural History* 5,46; Solinus 31,6; Martianus Capella 6,674); in relation to the Himantopodes from Mela, see my writings in *Rivista di filologia e di istruzione classica* (1976) 104: 417-419.

⁴⁸See Mela (1,47): "*Blemmyis capita absunt, vultus in pectore est*"; Pliny, *Natural History* (5,46): "*Blemmyis traduntur capita abesse ore et oculis pectori adfixis*"; Solinus (31,5): "*Blemmyas credunt truncos nasci parte qua caput est, os tamen et oculos habere in pectore*"; and Martianus Capella (6,674): "*Blemmyae sine capite sunt atque os et oculos in pectore gerunt*".

⁴⁹See also Jordanes, *Getica* 6: "*in orientali plaga et Indico oceano Hyppodem [add insulam]*". Ptolemy (3,5,10) cited the *Hippopodes* as people of the European part of Sarmatia.

⁵⁰See *Real-Encyclopädie XVIII*(3):870.

⁵¹See Strabo (1,63) (corresponding to F 6a Mette edition), and Pliny, *Natural History* (2,186ff.) (corresponding to F 13a Mette edition).

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