

TRAVEL AND GEOGRAPHY IN THE ROMAN EMPIRE

Edited by Colin Adams and
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THE PRESENTATION OF
GEOGRAPHICAL
KNOWLEDGE FOR TRAVEL
AND TRANSPORT IN THE
ROMAN WORLD

Itineraria non tantum adnotata sed etiam picta

Kai Brodersen

A recent encyclopedia article on land transport in the ancient world¹ surveys the problems associated with travel and transport as realised in classical scholarship. It concentrates on the technicalities of land transport, on harnessing, carts and carriages, on the economic importance of the transport of goods, public transport, travelling, infrastructure and the cost of transport. While this article shows how difficult and expensive land transport was, one problem is not addressed: the simple question of how one knew where to go at all before one even started to travel or transport goods from A to B. It is this – perhaps too obvious – question that we shall try to answer in the following pages: how was geographical knowledge presented for travel and transport in the Roman world?

Successful transport, after all, depends primarily on a knowledge of the world one wants to move in, on the answers to the questions of where one can go and how one can get there. In an age of detailed scale maps (to say nothing about satellite navigation), of geography as a standard school subject, and of modern means of communication, the answers are obvious. But what of Roman times?

THE WANDERINGS OF GALEN

Let us start with the sorry tale of a very learned man in the second century AD, the imperial doctor Galen. He had heard about a special kind of blood-red soil

only to be found in Hephaistias on the Greek island of Lemnos, and, as a true scholar, he wanted to do ‘hands on’ research on this feature personally:

Of course, I did not hesitate to travel to Lemnos, since I wanted to see how much blood is mixed with the soil. When I was on my second journey from Asia to Rome, travelling by land via Thrace and Macedonia, I first went from Alexandria Troas towards Lemnos, taking a boat en route to Thessalonike. I agreed with the captain that we would first land at Lemnos.

He did indeed land there, but not where it would have been necessary – for initially I had not known that there are two cities on the island, but had assumed that, like Samos, Chios, Kos, Andros, Tenos and all the other islands in the Aegean, Lemnos as well had only one city by the same name on the island. When I had gone ashore from the boat, I was informed that the city was called ‘Myrina’ and that it was neither near a (monument for) Philoktetes nor near a hill, which was sacred to Hephaistos, in the environment of this city, but in that of a different one, Hephaistias – and that this city was not close to Myrina.

The captain could not wait for me any longer, so I postponed a visit to Hephaistias until another time, when I would return from Rome to Asia. And this was done by me eventually, as I had hoped and planned. When I had crossed from Italy to Macedonia and when I had travelled through nearly all of it, I got to Philippi, a city in the vicinity of Thrace. From there I reached sea, some 120 *stadia* away, and from there I first sailed to Thasos, some 200 *stadia*, and from there some 700 *stadia* to Lemnos, from there another 700 to Alexandria Troas.

I have written about my journey and the *stadia* extensively, so that anyone, who might – like me – want to visit Hephaistias, knows its location and can arrange for the journey accordingly. On the whole island of Lemnos there are in the part that verges towards sunrise Hephaistias, and in the one towards sunset, Myrina.

(Galen, *De simplicium medicamentorum temperamentis* 9)

A learned man, working for the imperial court, travels from Asia Minor to Rome and back several times, but finds himself short of even such basic information as to how many cities there are on an Aegean island and how to get to the one he wants to find. He simply does not know it. His school and study subjects, of course, might have included, if any, some ‘Homeric’ geography of myth and fable, but never any ‘real’ geography. It was to take another 1,400 years before this was taught at schools at all, by reading ‘updated’ classical geographers, and 1700 before geography became a standard school subject.² And although Galen must have had access to a great deal of learned

information, he does not even consider looking the details up on a map (after all, his contemporary, the astronomer Ptolemy, had, as we know, collected quite a number of geographical data which were later used for the production of a map) – this kind of presentation of geographical knowledge simply does not occur to him (and there is no evidence at all that Ptolemy’s findings were noticed by his contemporaries, or indeed for another two centuries³).

So all Galen can think of is to ask a professional, a captain – who, as it turns out, does not know the details of the geography either and fails to get Galen to Hephaistias. Only after a second, more successful attempt does the doctor write down an itinerary for the benefit of future researchers; he does not assume that they would otherwise have access to this kind of knowledge, and he certainly does not even mention that drawing a map might perhaps be a better alternative of presenting his newly gained geographical knowledge.

BUT THE ‘PRACTICAL’ ROMANS ‘MUST HAVE HAD’ MAPS TO SCALE

Now, of course, this lack of maps cannot be true, or so we are told by modern historians. The Romans, after all, were such a practical people, weren’t they? ‘Considering their highly developed administrative abilities, it is hard to believe that maps were not in common use.’⁴ Indeed, any modern historical atlas will show us scale maps of ‘the world the Romans knew’. And since ‘it may seem surprising that scale maps were virtually unknown in medieval Europe in view of the extremely competent and complex scale maps produced by the Roman surveyors from the first to the third century AD’, the only explanation brought forward for this typically dark medieval lack of good maps is ‘that the Roman tradition of scale maps died out altogether.’⁵ So it is considered inconceivable that ‘the Romans’ in general, and learned high-ranking officials like Galen in particular, travelled without access to detailed geographical knowledge available on maps. Already ‘by the first century BC the knowledge of maps had been very widespread in Rome’, asserts one scholar,⁶ and another takes the title of the *comes formarum* as evidence ‘for what must have been a civil service maps and plans department’.⁷ In fact, the *comes formarum* was only in charge of the aqueducts, as was demonstrated by Mommsen more than a century ago⁸ – and there is precious little evidence for a ‘Roman tradition of scale maps’, or, to be precise (as I have argued in detail elsewhere⁹), no evidence at all: not even the surveyors’ maps are drawn to scale.

So to substantiate this claim for the question of this chapter let us look at the evidence produced for ‘missing links’ between ancient geographical knowledge and the assumption that maps to scale have always (and certainly in classical times) been the best, even the only reasonable way to represent this knowledge.

1. ‘The earliest Greek map to come down to us in any form and the first physical relief map known’ was ‘discovered’ by A.E. Johnston on coins from fourth-century BC Ionia.¹⁰ The reverse of some of a series of tetradrachms show an irregular pattern, changing from die to die, with what looked to Johnston like ‘a map depicting the physical relief of the hinterland of Ephesus, an area of approximately 90 square miles’. The features ‘must have been an attempt to show surface phenomena, almost certainly vegetation’ (note the ‘must have been’ again) and are thus ‘remarkably close to that of a modern map’. Similarly, O.A.W. Dilke has stated that these coins ‘clearly portray, though only in rough form, some sort of relief map of the hinterland of Ephesus’.¹¹ However, the pattern changes significantly from die to die (which would be rather problematic if this really were a map to scale), and the details are indeed far too ‘rough’ to allow any interpretation of this kind. It is not surprising, then, that even the author of this interpretation has since become ‘less sure of her theory’,¹² which should not now be repeated in books on the history of geography and cartography.¹³

2. Both the standard textbook on ‘Greek and Roman Maps’¹⁴ and the monumental first volume of the ‘History of Cartography’¹⁵ present us with a Roman ‘Map of Gaul’, a block of sandstone which can be tilted upwards and then looks a bit like an outline, to scale and with north at the top, of modern France. In addition, three of the many holes are taken to represent ‘the Gallic religious centers of Puy de Dôme, Autun, and Grand’ – which leads to the rash conclusion that the stone dates from the time of Caesar’s Gallic war.¹⁶ The ‘map’ was a stray find, made – or so it is reported – in 1976 by one Pierre Camus in a Roman camp in Mauchamp on the Aisne. It has never been properly published; the details of where the stone was found (and where it is now) are obscure, and the proposed first-century BC date is completely unsubstantiated. So great, however, is the desire to find the ‘missing link’ that the discovery of this ‘Map of Gaul’ was specifically greeted as a ‘besonderes Finderglueck’ (special discoverer’s luck)¹⁷: here, so it was claimed, is ‘one of the few surviving geographical maps of the pre-Augustan period’.¹⁸

However, it has recently been shown¹⁹ that the reported date of the find, 1976, is at odds with the fact that the discoverer, Pierre Camus, has used just this ‘map’ on a drawing of the cover of a historical novel which he published in 1974.²⁰ Given this oddity, and the fact that there is no independent evidence for the find in 1976 at all, let alone for the antiquity of the ‘map’, all this stone proves are dangers for scholarship. This was an example of the fervent quest for the Roman map allaying any reasonable caution: a stone presented as ‘ancient’ was accepted and became a pivotal piece of evidence for ‘the Roman tradition of scale maps’.

3. In the summer of 1999, the French magazine *Archéologie* reported the discovery of an antique mosaic in a rich third- to fourth-century villa in Ammaedara, modern Haidra, in the North African hinterland, some 160 miles



Figure 2.1 Ionian coins with ‘geographical representations’
Source: Head 1892

south-west of Carthage.²¹ In a graphic display which resembles a map, more than a dozen Mediterranean islands are presented, including Cnidus, Cyprus, Egusa, Naxos, Rhodes, Scyrus and – too late for Galen – Lemnos. All these islands vignettes show one important harbour city each (compare Galen’s claim that all Aegean islands ‘have only one city by the same name on the island’) and identify the location by writing down the name of the place. This is important, as the outlines of the islands and their location in the sea are not by themselves recognisable, not drawn to any scale and not representing the ‘real’ geographical position in the Mediterranean. Indeed, not even all of them are islands (Cnidus, for example, represented here as an island, is a peninsula). And there are three separate ‘islands’ named Cyprus, Idalium and Paphus – where we know, of course, that the latter two are cities on the first. Did the artist, like Galen, believe in the ‘one island–one city’ theory so much that this was the only solution he could think of?

So again, while the graphical representation reminds us of a ‘map’, the mosaic does not provide evidence for a ‘Roman tradition of scale maps’. The archaeologist who published the find rightly assumes that it is rather a graphical representation of an itinerary, of stations along the route of a mythical journey of Venus, the *navigium Veneris*. Geographical realities did not matter here, and elsewhere. Neither this map nor any source which the artist might have had access to was useful for travel and transport at all.

4. Perhaps a century later than the Ammaedara mosaic are the graphical representations of islands – like Britain – and regions in the *Notitia Dignitatum*. Again, these graphics remind us of maps, but – like on the mosaic – the outlines of the islands or regions are completely arbitrary, as is the position of the ‘cities’, again marked by vignettes, on them: ‘The presentation is purely conventional and the illustrations were not intended to be maps . . . The disposition of the names on the “island” is conventional rather than geographical.’²²

5. Finally, scholarly literature on geographical knowledge often refers ‘to the best known example of Byzantine cartography,’²³ the sixth-century ‘Madaba Map’, a mosaic in a church in Madaba (Medaba) in what is now Jordan. This map, discovered in 1896 and preliminarily published by Avi-Yonah in 1956, still awaits final publication.²⁴ The mosaic represents the Holy Land from the

Mediterranean shore to the desert and from Tyrus and Sidon to the Nile delta; Jerusalem is – of course – at the centre of the image, while cities and stations – 157 of them are preserved – are marked by vignettes and individually named; most of them are obviously taken from Eusebius' catalogue of biblical toponyms and from an itinerary, a list of road stations, in the Near East; roads, however, are not marked on the mosaic. The graphic is not at all to scale: the coastline from the Nile to northern Syria is a more or less straight line, ignoring the fact that the first portion runs from west to east, the second from south to north, and the 'scale', if one were to measure it,²⁵ oscillates between 1:15,000 and 1:600. So the 'Madaba Map' cannot be used as evidence for a 'tradition of scale maps', let alone for a useful representation of geographical knowledge. Rather, if the Ammaedara mosaic served a 'pagan' interest in myth, the Madaba mosaic fulfils a similar purpose in a Christian context – its subject is not useful geographical knowledge for people 'on the road', but a graphical representation of places important for the reader of the Bible.

To sum up, all five artefacts, which have been adduced by scholars so far as material evidence for a 'Roman tradition of scale maps', fail to prove the existence of this tradition, and resorting to the 'must have been' variety of logic does not solve the problem of how geographical knowledge was presented.

ITINERARIA ADNOTATA (ANNOTATED ITINERARIES)

However, there were other means of representation: itineraries, list of stations along a route, of the kind which Galen found most useful for future researchers, should they want to travel to Hephaistias on Lemnos. There is ample evidence for the use of itineraries,²⁶ not least in military action. Here is how the Roman emperor Alexander Severus enabled his troops to find their way:

The dates of the *itinera* were publicly displayed; two months before the event he published an *edictum*, in which was written: 'on that day, at that hour, I shall go forth from the city and, if the gods allow it, I will stay in the first station', detailing then the stations one after another, then the camps, and then where provisions are to be had, and all that for as long as one arrived at the barbarians' borders. From there everything was silenced, and all went without certainty, lest the barbarians would know the Roman plans.

(Historia Augusta, *Alexander Severus* 45, 2–3)

How common this kind of organisation of geographical knowledge was is evident also from a reference in an unusual context for military questions, St Ambrose's commentary on Psalm 118 (119 in the King James' Bible), verse 33 ('Teach me, O Lord, the way of thy statutes, and I shall keep it unto the end'):

GEOGRAPHICAL KNOWLEDGE IN THE ROMAN WORLD

A soldier who starts an *iter* does not by himself arrange for the order of the march, does not take a way by his own judgement and does not take an arbitrary shortcut, lest he leaves the *signa*, but he receives from the *imperator* an *itinerarium*.²⁷

(St Ambrose, *Expositio Psalmi CXVIII* 5, 2)

We do, in fact, have a number of Roman itineraries, first and foremost the well-known literary *Itinerarium Antonini*, which gives us an idea of what these itineraries looked like: simple lists of stations along a route, giving their names and the distances between them. Similar lists are also known from inscriptions, for example, a large octangular block from Tongeren (Tongres) in Belgia, dating to *c.* AD 200 and detailing lists of stations and distances (in the Gallic unit of *leugae*) along several routes meeting at the place where the stone was posted. Here is what the three legible sides preserve (giving modern placenames):

Cologne 11 leugae
Bonn 9 leugae
Remagen 8 leugae
Andernach 8 leugae
Koblenz 8 leugae
Boppard 8 leugae
Oberwesel 8 leugae
Bingen 12 leugae
Mainz 9 leugae
Nierstein 11 leugae
Worms 11 leugae
—
. . . 15 leugae
Warcq 15 leugae
La Noue Maga {?} 12 leugae
Reims 12 leugae
Fismes 12 leugae
Soissons 16 leugae
Pontoise 9 leugae
Roye 8 leugae
Peti-Hangest .. leugae
Amiens .. leugae
—
equally from Cassel
the region of the Atrebates 14 leugae
Arras .. leugae
equally from Bavay

(*CIL* XIII 9158 = XVIII 2, 675)

Similar epigraphical lists²⁸ are preserved from the same region in Allichamps (*CIL* XIII 8922 = XVII 2, 489), Autun (*CIL* XIII 2681 = XVII 2, 409) and Junglinster (*CIL* XIII 4085 = XVII 2, 676), but also from the African Fedj-Souiod (*CIL* VIII 10118 = 22247).²⁹ The latest discovery of such a list of places and distances was made in Lycia: the so-called ‘Stadiasmus’ from Patara (*SEG* XLIV 1205), as yet only known from a preliminary publication and some recent photographs (see Figure 3.5 below).³⁰ Apparently, here the formation of the Roman province of Lycia was marked not by the public display of a map or anything maplike, but a monumental inscription with the names, and distances, of important places in the new province.

*ITINERARIA NON TANTUM ADNOTATA SED
ETIAM PICTA* (ITINERARIES NOT ONLY
ANNOTATED BUT ALSO ILLUSTRATED)

Presenting geographical knowledge in this form of itinerary was obviously a very successful and practicable method, and evidently useful for travel and transport. It did indeed successfully solve the problem not addressed in the article referred to at the beginning of the essay: how do I get the goods – or myself – from A to B without access to scale maps.

However, this is not the whole story. The Roman military writer Flavius Vegetius Renatus *c.* AD 400 recommends in his work *De re militari* the use not only of annotated, but also of ‘painted’ itineraries: ‘*itineraria provinciarum, in quibus necessitas gerebatur, non tantum adnotata sed etiam picta* [itineraries of the provinces in which the emergency occurred not annotated but illustrated]’ (Vegetius 3, 6).

Given the search for the ‘missing link’, it is not surprising that the Latin term *itineraria picta*, known only from this passage, has been translated as ‘coloured maps’³¹ or ‘proper maps’.³² But as we have seen, there is no other evidence for ‘proper maps’, and there is no need to translate *itineraria picta* as such. What then could an *itinerarium pictum* have looked like?

There are a number of artefacts where a textual itinerary is adorned by graphical elements: the four second-century AD Vicarello goblets, for example, list the stations, and distances, between Cadiz and Rome, on silver beakers in the shape of a Roman milestone (*CIL* XI 3281–4). Two vessels, one from Rudge Coppice near Froxfield in Wiltshire (*RIB* II 2, 2415.53) and one from Amiens (*AE* 1950, 56), set a list of stations on Hadrian’s wall very similar to the one in the Ravenna Cosmography next to images of turrets or crenellations:

Mais Aballava Uxelodunum Camoblannis Banna Esica

Bowness-on-Solway, Burg-by-Sands, Stanwix, Castlesteads, Birdoswald,
Great Chesters

GEOGRAPHICAL KNOWLEDGE IN THE ROMAN WORLD

Visually more attractive is the list of stations on the so-called Dura Shield, a third-century AD leather fragment from Dura-Europas found in 1922 and published soon afterwards (Figure 2.2).³³ The centre of this round leather patch was covered with the images of four boats and surrounded by a circular line, along which we find vignettes of the sort familiar from the mosaics, though less elaborate, the names of stations and the distances between them:

River Panysos .. miles
Odessos (Varna) .. miles
Bizone .. miles
Kallantis (Mangalia?) .. miles
Tomis (Constanza) 33 miles
(Istropolis on the) Istros 40 miles
Danubios (Danube) .. miles
Tyras (Belgorod) 84 miles
(Olbia on the) Borysthenes (Nikolaev) .. miles
Chersonesos Taurike (Crimea) .. miles
Trapezus mountain (Krimskie Gory) .. miles
Ardaba (or Arta) .. miles

(Dura parchment 9)

The preserved portion of the shield, then, presents stations along one coastal route (road) of the northern part of the Black Sea (there are no crossroads); as

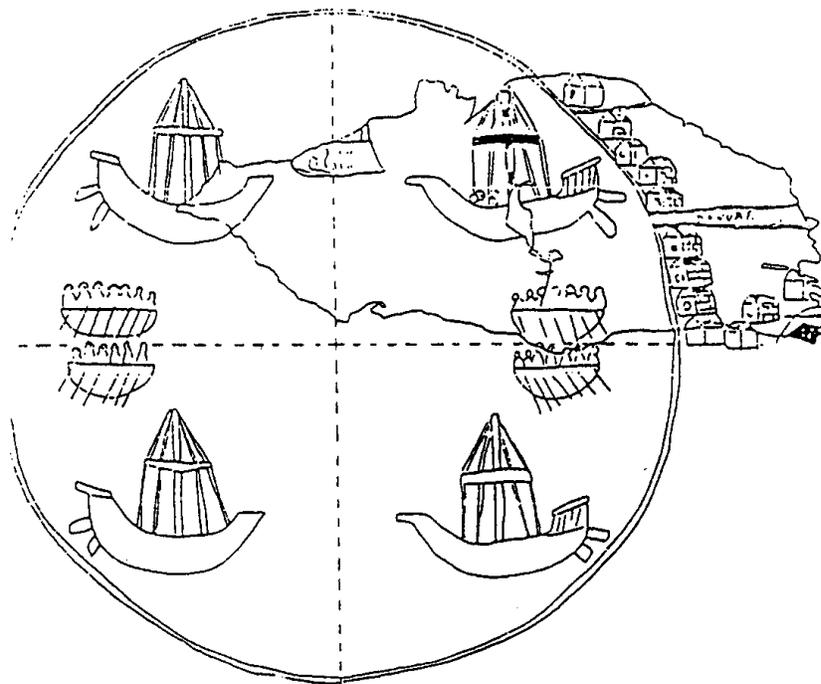


Figure 2.2 Dura-Europas Shield © Kai Brodersen

less than a sixth of the circle is preserved, it can be argued that the original was not limited to stations on the Black Sea coast, but possibly covered the eastern (or even whole) Mediterranean. In any case it is far from an accurate representation of geographical realities (let alone scale): what is in reality a rugged and complicated coastline is represented here as a full circle – a decorative form of *itinerarium pictum*, but not a map.

THE LONDON TUBE DIAGRAM AND ITS ANCIENT PREDECESSORS

There is now even more to ancient *itineraria picta* than the Dura Shield: on 6 December 1999 an article by David Keys in the *Independent* reported: ‘Scholars uncover oldest map in Western World’ (there is a garbled and unacknowledged fake of this article in the German paper *Frankfurter Allgemeine Zeitung* of 8 December 1999, which completely misunderstands Keys, but at least proves how badly news travels even in the age of electronic communication). Not quite: what has been discovered, and published – so far only in part – is what I take to be an *itinerarium pictum*.³⁴

The papyrus, apparently written in first-century BC Antaiupolis in Upper Egypt (the provenance is not proven, and the papyrus is now in a private collection), contains, *inter alia*, a number of highly artful portraits and details of human bodies, studies of animals – birds, fish, and mammals, including a tiger and a giraffe – as well as fantasy beings like a star-dog and a panther-crocodile. It also preserves a more complete text of a geographical work by the early first-century BC geographer Artemidorus that was previously known from quotations by later authors;³⁵ the portion published so far deals with Spain³⁶ – and is accompanied by a drawing of what the editors interpret as a representation of Spain.

This drawing contains a number of intersecting lines obviously representing roads or rivers, and what look like vignettes of the sort familiar to us from the (later) Dura Shield as representations of stations. It does not, however, contain any text, and the editors have argued that the project was abandoned before the names of the stations, and possibly the distances, were added. The whole drawing is rather unalluring, especially when compared to the fine images of the animals – an interesting comment on the state of the art of mapping in the time and country of the papyrus: a draughtsman, who could draw beautiful portraits, elaborate images of fish and fanciful representations of star-dogs, could not think of anything but a schematic diagram of routes and stations when confronted with the task of illustrating a geographical text. What he produces, then, is a diagram, probably correct in the representation of ‘topological’ relations of spaces (of the sort familiar from the London Tube diagram), but certainly not to scale.

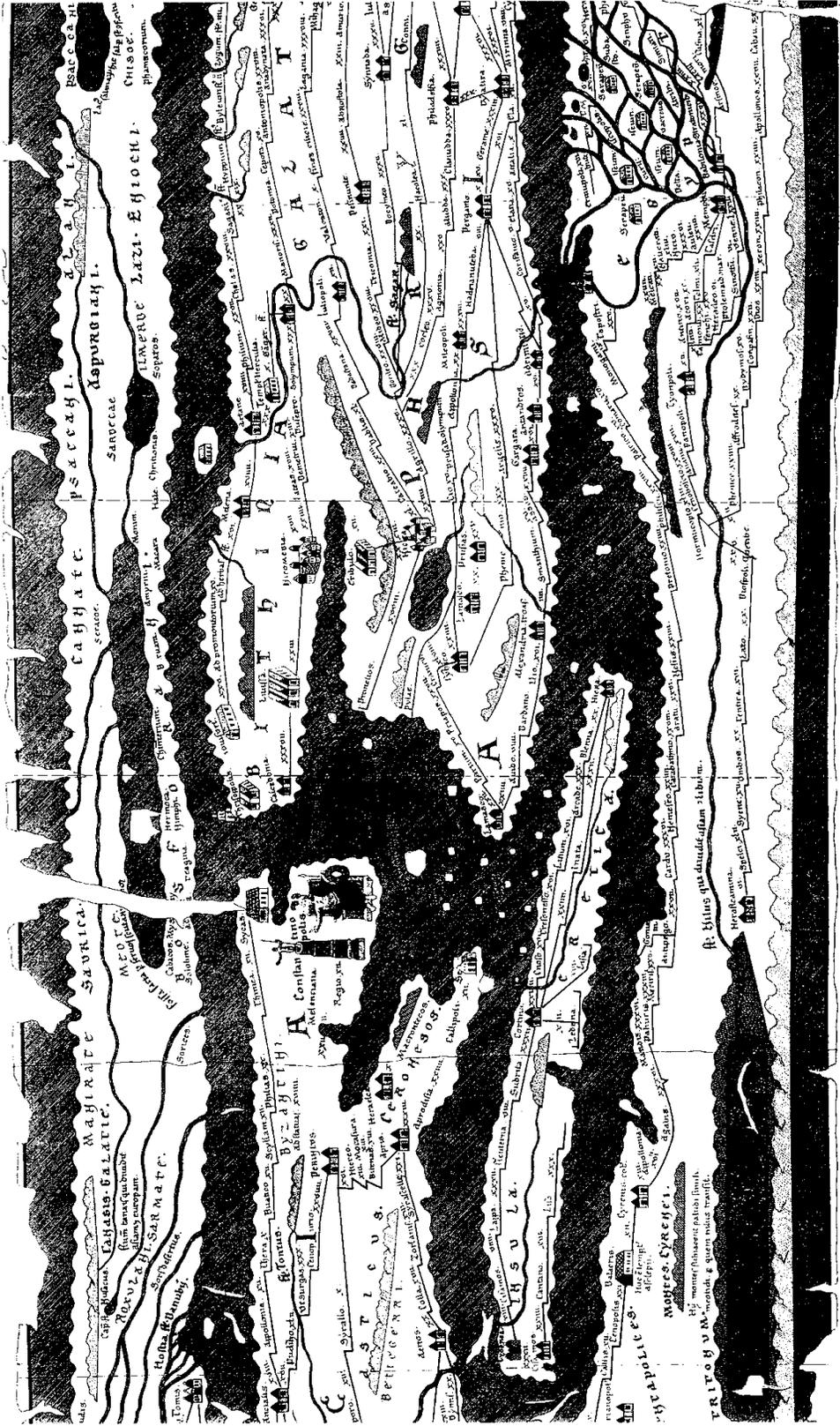


Figure 2.3 Peutingery Table: the eastern Mediterranean, including Crete, the Nile delta, Constantinople and modern Turkey (With permission from the Österreichische Nationalbibliothek.)

In fact, a similar diagram dating to at least Roman imperial times has been known for a long time, if only from a twelfth-century copy: the so-called *Tabula Peutingeriana*, a parchment roll of *c.* 30 cm height and nearly 700 cm width, representing routes through the ancient world from Britain (this portion was lost, though) to India. The age of the Roman original of the *tabula* is unclear: it does list monuments of Alexander the Great (fourth century BC) and Pompeii (destroyed in AD 79), but it also shows Constantinople (founded in the 4th century AD) and a number of pilgrim's stations like the Mount of Olives in Jerusalem and St Peter's in Rome. The new papyrus suggests that the idea of representing space in a diagram was familiar already in the first century BC.³⁷ As on this papyrus and on the Dura Shield, stations along the routes on the *tabula* are marked by hooks or vignettes of stations, and, as on the Dura Shield, the names of the stations and the distances are spelled out and cannot otherwise be deduced from the image; there is certainly no concept of scale. What is more, geographical accuracy is not sought, as the editor of the magnificent facsimile has stated: 'The courses of rivers, if they correspond to real watercourses at all, are far removed from their proper form; they are crossed by roads which in reality run elsewhere altogether, and thus suggest that they were often only drawn so as to enliven the image optically; the same is generally true for the mountain ranges.'³⁸

What is generally correct, however, is the series of stations along a route, and the distances written along the lines representing the roads in between these stations, and it is safe to assume the same sort of only 'topological' accuracy in the relative position of stations to each other for the unidentified stations on the Artemidorus diagram.

To be sure, such diagrams are a very successful way of organising and presenting geographical knowledge – as was discovered in London in the 1930s: Henry (Harry) Beck, a part-time draughtsman for the London Underground Group, suggested in 1931 replacement of the geographically accurate scale maps used as a representation of the network with a radically simplified topological diagram, which gives up the concept of scale altogether and presents all stations as more or less equidistant along routes which know only angles of 90 or 45 degrees. Initially, Beck's suggestion was rejected by his superiors, but two years later a trial run of some leaflets with Beck's diagram proved to be such a success with the travelling public that it replaced all maps³⁹ – and has since become the standard representation of regional transport all over the world (see Figure 2.4), for the simple reason that it organises geographical knowledge in a visually attractive and practical way.

THE PRACTICAL ROMANS, AFTER ALL

To sum up: the question of how, in Roman times, geographical knowledge was presented to those engaging in travel and transport cannot be ignored. There

Region Europa

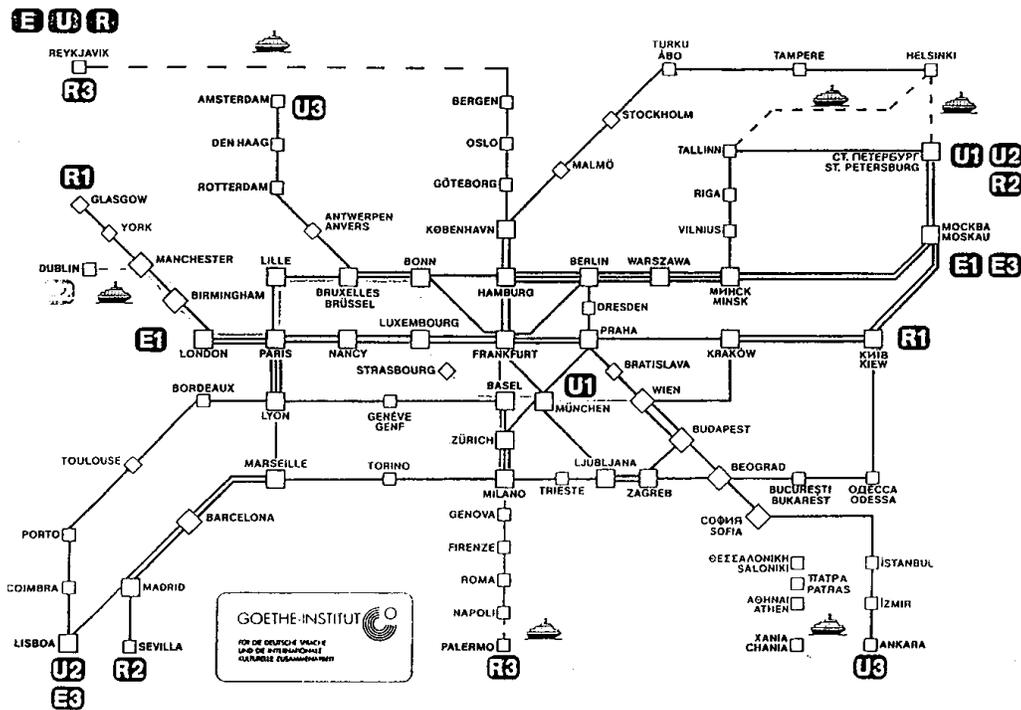


Figure 2.4 The current map of European communications. (Courtesy of B. Luley, Goethe Institute, Munich.)

is no obvious answer, either, as the claim that there simply ‘must have been’ maps to scale for that purpose seems to be wrong.

This, however, does not make the Romans look unpractical: it is certainly no coincidence that the highly redundant information on scale maps cannot even now be read by everyone and that modern ‘routing’ software, which translates the information stored in maps into simple lists of stations and distances, is presently such a commercial success.

Rather, geographical knowledge was organised, and presented, in itineraries. The risks of this method are small (you might admittedly fail to realise that there is more than one city on an island), the gains, however, great: an itinerary allows you to plan travel or transport from A to B successfully, and it is this method which was adopted throughout antiquity. Simple *itineraria adnotata* are enough if there is only one route, but if there is a choice of routes to be taken, the ideal is – from the first-century BC Artemidorus papyrus to the London Tube diagram – an *itinerarium pictum*.

NOTES

- 1 Raepsaet (1999).
- 2 Cf. Brodersen (1996).
- 3 Polaschek (1965) 764–5.
- 4 Moreland and Bannister (1989) 4.
- 5 Harvey (1987) 466.
- 6 Sherk (1974) 559.
- 7 Dilke (1987) 244; note the ‘must have been’.
- 8 Mommsen (1887) 1047; cf. Demandt (1989) 383.
- 9 Brodersen (1995). Salway in this volume attacks my scepticism on the so-called ‘map’ of Agrippa in the Porticus Vipsania at Rome, which I take to be a monumental inscription, as ‘unwarranted on a number of counts’, going on to mention two (and failing to mention that I discuss all of them): first, the ‘venerable tradition associating pictorial illustration with public porticoes’ as witnessed by the will of Theophrastus – on which see Brodersen (1995) 75, arguing that this will rather shows how rare and valuable such depictions were; second, the wording of Pliny, *NH* 3, 17 ‘spectandum’ – a word Pliny uses to refer to texts elsewhere, cf. Brodersen (1995) 277–278 – and two late antique passages – Eumenius, in AD 297, referring to an idea he has for the school in Autun, and *Anth. Lat.* 724, referring to a redrafting of the anonymous *Divisio orbis terrarum* in AD 435 – on both see Brodersen (1995) 106–7. I fail to see how texts that do not refer to the Porticus Vipsania or Agrippa at all, and that are more than three centuries apart from it, are able to prove Salway’s point, while direct references to the Porticus Vipsania never mention the ‘map’: cf. Martial, *Epigr.* 1, 108, 3; Tacitus, *Hist.* 1, 31, 2; Plutarch, *Galba* 25, 9; Dio Cassius 55, 8, 3–4, etc. – all discussed in Brodersen (1995) 275, and not discussed by Salway in his article. To end on a conciliatory note: we both agree, of course, that whatever the portico displayed cannot be regarded, in Salway’s words, as a ‘plausible archetype for the lists in the Antonine Itineraries or the routes on the Peutinger Table and general public knowledge thereof’.
- 10 Johnston (1967).
- 11 Dilke (1985) 146.
- 12 Dilke (1988) 92.
- 13 But see, e.g., Olshausen (1991) 91.
- 14 Dilke (1985) 102–3.
- 15 Harley and Woodward (1987) 206–7.
- 16 Dilke (1987) 207.
- 17 Hinrichs (1987) 666.
- 18 Dilke (1987) 207.
- 19 Brodersen (1995) 143–4.
- 20 Camus (1974); I have used the copy in the BN Paris (8° 50383).
- 21 Bejaoui (1999); cf. now Bejaoui (1999/2000) and Brodersen (2001).
- 22 Jones and Mattingly (1990) 33.
- 23 Dilke (1987) 264.
- 24 Avi-Yonah (1956); a final publication was promised by Donner and Cueppers (1977), but has not appeared; cf. meanwhile Piccirillo (1989).
- 25 Avi-Yonah (1954) 21.

- 26 On itineraries in general cf. Brodersen (1995) 165–90 and Salway in this volume.
- 27 Salway in this volume argues that this *itinerarium* is not a real thing, but a ‘construction of the reader’ – a view that seems to me unconvincing in view of the actual text of St Ambrose (*itinerarium ab imperatore accipit; praescripto incedit ordine; a praescripto itinere*).
- 28 Salway in this volume introduces the term *tabellarium* for these lists – a term for which, in this meaning, there is no ancient evidence at all (whatever *CIL* I² 638 refers to with *tabelarios*, it cannot be the accusative plural of *tabellarium*, and none of the other lists, or references to lists, uses the term) and for this reason should not be used.
- 29 There is no evidence for the assumption that the *miliarium aureum* in Rome carried such an inscription; cf. Brodersen (1996/7).
- 30 Sahin (1994); photos in Isik (1999).
- 31 Milner (1993) 17.
- 32 Stueckelberger (1994) 69: ‘eigentliche Karten’.
- 33 The principal publication is Cumont (1926).
- 34 Gallazzi and Kramer (1998/9); cf. Brodersen (1999).
- 35 Brodersen (1997), published before the discovery, obviously reflects only this earlier knowledge.
- 36 On this see now Kramer and Kramer (2000), who extensively mock the article on *Hispania* in *Der Neue Pauly* as not well-enough researched – a deficiency true for their own article as well: they name a wrong author for the article they poke fun at (K. Brodersen instead of P. Barcelo).
- 37 See Brodersen (forthcoming (b)).
- 38 Weber (1976) 12.
- 39 Garland (1994).