

Historiography of Space in Homer and Herodotos

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This thesis is my own work. All sources used have been acknowledged.

All translations are my own unless explicitly stated otherwise.

Susan Elizabeth Ford

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Abstract

The Homeric poems and the *Histories* of Herodotos are crucial to our understanding of the intellectual life of the ancient Greeks. They are the earliest extant poetry and the earliest extant prose; they have never been lost and have always been read. Knowledge of the external world and of other peoples, though far from formalised as the study of ‘geography’ in this period, is prominent throughout the poems and the *Histories*: most readers of the *Iliad* get a very strong impression of place from their interaction with the text: the plain before the great citadel of Troy where the battle is fought, and the homes of the Trojan allies. Similarly, the *Odyssey* persuades many that they know and can recognise Ithake and surrounding islands. The *Histories* are an encyclopaedia of geographical knowledge of fifth-century Greeks which, conspicuously, includes knowledge of Skythia, Egypt and Persia as ‘other’ lands. In spite of this strong impression of place enduring even into the modern world it is not easy to know exactly why and how it arises and what narrative structures and strategies create it.

The Homeric poems and the *Histories* are fundamentally about people and places (not cosmologies, or plants, or machines). Their completeness and length make it possible to study the spatial concepts held by their creators in detail. The thesis offered is that there have been three largely independent approaches to understanding the thinking about space in these texts and that by studying these approaches we can learn more about what categories of space are presented, thus avoiding a *petitio elenchi*.

The three approaches discussed with this purpose in mind are autopsy, or retracing of steps, graphic demonstrations, and linguistic analyses (for which I present a number of case studies).

Contents

Abstract.....	v
Introduction	1
1. Motivation	1
2. Historiography	2
3. Overview	11
4. Recapitulation.....	21
Part I Autopsy.....	22
Chapter 1 Historical Autopsy	22
1.1 Geographical description	22
1.1.1 Recognisability	26
1.2 Naïve Geography	28
1.3 Identifying landscapes	29
1.4 Autopsy by Leaf.....	30
1.5 Autopsy by J. V. Luce.....	38
1.6 Summary	42
Chapter 2 Autopsy by Homer and Herodotos	44
2.1 Text and landscape	44
2.2 Motivation for autopsy	45
2.3 Herodotos' Labyrinth Description.....	54
2.4 Goat Island	56
Part I: Summary	58
Part II Visualisation	60
Chapter 3 Visual Forms	60
3.1 Setting up the problem: Ancient Greek cartography (or not)	60
3.1.1 Ancient Greek cartography	60
3.2 The intention of graphics	66
3.3 Visualisation research	71
Chapter 4 Pseudo-maps.....	74
4.1 Introduction	74
4.1.1 Origins	75
4.2 Nineteenth-century	77
4.2.1 Rennell's Geographical system of Herodotos.....	77
4.2.2 Spruner-Menke, Müller, Smith & Grove.....	80
4.2.3 Müller.....	83
4.2.4 Edward Bunbury	85
4.2.5 Myres and the two maps available to Herodotos	87

4.3	Twentieth century.....	92
4.4	A continuing tradition?	96
4.5	Summary	97
4.5.1	The hermeneutic problem	102
Chapter 5 Schematic Representations.....		103
5.1	Schematic history.....	103
5.2	Nineteenth century.....	104
5.3	Agathe Thornton’s scheme of the plain	107
5.4	Hartog’s Herodotos.....	108
5.5	HESTIA network maps.....	109
5.6	Jenny Strauss Clay’s position of combatants graphics.....	110
Part II: Summary		117
Part III Cognition		124
Chapter 6 Spatial cognition and spatial language.....		124
6.1	The existence of the cognitive model of space.....	124
6.2	Ontological diversity of the spatial mental model.....	126
6.3	Determining the nature of the spatial mental model by experiment	127
6.3.1	Determinate and indeterminate descriptions	127
6.3.2	Topological space and metric space	128
6.3.3	Routes and surveys	131
6.4	The spatial mental model and language.....	133
6.5	Frame of reference	135
6.6	Gaze tours	136
6.7	Perspective.....	138
6.8	Summary	141
6.9	Viewable space in the <i>Odyssey</i> : Alkinoos’ Garden	141
6.9.1	Analysis	141
6.9.2	Alkinoos’ garden – conclusion	148
Chapter 7 A controversial passage: Herodotos’ Egyptian labyrinth description 2.148		151
7.1	Preliminary – a short passage of survey description	151
7.2	The labyrinth description.....	153
7.3	Analysis of Language.....	161
Chapter 8 Large-scale space in the <i>Odyssey</i> : Kirke’s Island.....		171
8.1	Principles of the Analysis	171
8.2	On Kirke’s island.....	172
8.3	Haptic Space.....	176
8.4	The large-scale space	177

8.4.1	Landmark 1: the ship	178
8.4.2	Landmark 2: the lookout.....	178
8.4.3	Landmark 3: Kirke’s house	180
8.5	Identifying a spatial framework.....	185
8.6	On being lost: Book 10.190–2.....	189
8.7	Kirke’s island - Conclusion.....	190
Chapter 9 Odysseus and Nausikaa episode (<i>Od.</i> 5.452 to 6.317).....		191
9.1	Odysseus and Nausikaa meet in space	191
9.2	Analysis	195
9.2.1	Extending the field of view: the meaning of ἐπ’ ἡμίονας προύχουσας	197
9.3	Interpreting indications of space	201
9.4	Summary – Space in the Odyssey	204
Conclusion.....		208
Abbreviations.....		215
Bibliography		216
Texts, commentaries and translations.....		216
Secondary sources		217

Introduction

1. Motivation

This thesis presents a new way of understanding the historiography of spatial concepts in the Homeric poems and the *Histories* of Herodotus by offering a simultaneous critique of the multiple modes—autopsy, graphic presentation, and linguistic analysis—of understanding space. The enquiry was motivated in the first instance by the observation that fundamentally different arguments can still be made about the representation of space in the *Iliad* and the *Odyssey*, and that a similar schism appears in commentary on the *Histories*.¹

The Homeric poems probably had their current form by the end of the eighth century and the *Histories* probably reached final form by 420s BC.² The historical distance between them corresponds to the transition from archaic to classical Greece: during that period there was a change from poetry to prose as the medium of authority.³

This distance itself was an invitation to a thematic study which placed the poems, as the first extant Greek literature, and the *Histories*, as the first extant prose work, side by side. Their ‘first extant’ status and the consequent lack of substantial directly comparable material means that both the poems and the *Histories* present special challenges not only of source criticism but of thematic study. The powerful sense of place which most readers take from the poems is a strong invitation to ask where this

¹ Two and a half millenia of scholarship have produced consensus on many parts of the Homeric question, but not on whether, or what kind of, geographical knowledge can be extracted from the poems. For a recent, succinct, summary of the issues which have constituted the ‘Homeric question’ see Martin West, ‘Homeric question’ in Margalit Finkelberg (ed.), *The Homer Encyclopedia*, 3 vols, Chichester, Wiley-Blackwell, 2011, vol 1, pp362–364. Although in that article West remarks that ‘it no longer seems appropriate or convenient to roll them up into a package labelled the Homeric Question’ (p364), I use the term here because I am not primarily discussing the separate issues.

² See the cautious comment on date of ‘publication’ by David Asheri: ‘We can only assume that in the last decades of the fifth century the Athenian literary *elite* knew Herodotus’ book in whole or in part’ (David Asheri, Alan Lloyd & Aldo Corcella, *A Commentary on Herodotus: Books I–IV*, Oxford University Press, 2007, p51).

³ On the transition, see Simon Goldhill, *The invention of prose*, New Surveys in the Classics, no. 32, Oxford University Press, 2002. That the Homeric poems are not at the beginning of epic poetry in Greece has been shown from many points of view, including for example the sophistication of their time structure and their unity of theme. The time structure can be made to appear simple by setting out events in a table which maps lines of the poem to day of action and omitting stories told by characters (Menelaus, Odysseus), as Stanford does (W.B.Stanford, *The Odyssey of Homer*, vol 1, 2nd ed., London, MacMillan, 1959, ppx–xii). This is the time of the ‘narrator-text’ as opposed to the time of the ‘fabula’ in the terminology of narratology. For this, see the glossary of narratological terms concerning time (especially ‘interlace technique’, ‘analepsis’, ‘rhythym’, ‘epic regression’) and Appendices A and B in Irene de Jong, *A narratological commentary on the Odyssey*, Cambridge University Press, 2001.

comes from and how it is generated. The ‘problem of space’ has been a theme in the philosophy of culture and post-structuralism since the 1960s but did not engage classicists in the commentary on ancient texts directly until recently.⁴ An exception is a long tradition, and the long need, to identify places in relation to the *Iliad* and the *Odyssey*, and place identification in Herodotos’ work is, superficially at least, much less problematic.⁵ The *Histories* are encyclopaedic and describe in greater or lesser detail every region of the world as then known to Greeks. However the question as I posed it to myself initially was how spatial cognition was to be recognised in the text of the poems and the *Histories*. A formal ‘grammar of space’ was becoming mature for English and for some other modern languages, but not for ancient Greek, so my attention turned to the literature on space in other fields.

A critical influence at this point was a collection of essays edited by David Mark and Andrew Frank, *Cognitive and linguistic aspects of geographic space*,⁶ which brought together essays by geographers, cognitive scientists and linguists in a way which stimulated my interest in cross-disciplinary thinking. It did not then take long before reading in the history of Greek geography and Herodotos’ place in it showed that there was another mode—that of mapping. And as this search for the operations of space in the Homeric poems and the *Histories* progressed I began to realise that I was pursuing an idea of space along ever diverging paths.⁷ The result is an account of three main traditions which are dealt with in the three parts of the thesis.

2. Historiography

Space in Homer and Herodotos is a large topic which deserves an adequate introduction. The way I have chosen to address the question of how space has been read in the texts under discussion is to give a demonstration of the fact of there being diverse ways. Of the three modes which I identify, one at least, the autopsy mode, has its roots in antiquity; I make an argument for the visualisation mode having its roots

⁴ Christos Tsagalis, in a book which I did not see early enough to take account of in the body of this thesis, comments on the ‘slow start’ classicists have made in the study of space (*From listeners to viewers: Space in the Iliad*, Cambridge, Mass., Harvard University Press, 2012, p1).

⁵ Two books of the last 20 years written for a general audience draw attention to the continuing interest of this naming and identification theme: Michael Wood, *In search of the Trojan War*, London, British Broadcasting Corporation, 1985; and Robert Bittlestone, (with James Diggle & John Underhill), *Odysseus unbound: The search for Homer's Ithaca*, Cambridge University Press, 2005; both have good histories of the ‘search’.

⁶ David Mark & Andrew Frank (eds.), *Cognitive and linguistic aspects of geographic space*, Dordrecht, Kluwer Academic, 1991.

⁷ I am indebted to Jill Matthews for making me understand this.

less far back, perhaps in the sixteenth century; and, finally, I argue that a third mode—cognition—has been applied relatively recently, partly as a result of the spatial turn in humanities in general. Alexandra Lianeri has recently argued that the long classical tradition has, in part, performed a history of ancient history by constant revision and that this has prevented a deeper historiographical understanding from developing.⁸ My argument in the thesis, based on the demonstrations of each mode in the three parts, is that these modes are demonstrations of assumed space which form an enactment or practice of spatial understanding. If we can show that such demonstrations are consistently ‘about’ the same thing—which we are calling here ‘space’—that thing is shown thereby to be at least a valid category in the context under discussion.

1. Is space a legitimate category about which to talk when interpreting Homer and Herodotos?

If this is taken as a hermeneutic problem, taking space as a category is not controverted by absence of explicit discussion of space in the texts; therefore we must ask what is the reason it is legitimate and interesting—and the reason must be derived from current scholarship, which reason in turn stems from others’ exegesis of the texts. Here I discuss some of concepts of space used by modern scholars, and review the most recent literature in order to identify the major trends in research on ‘space’ in Homer and Herodotos and justify the importance of my categorisation.

The body of the thesis is devoted to demonstration in experimental form of the several methods which have been employed to understand space in the poems and Herodotos. It seems necessary to make a demonstration as well as provide an analysis because the concept of ‘space’ must be contested and though Tsagalis has now provided a survey of the uses of the concept by Homerists writing on the *Iliad* there is no equivalent survey for Herodotos. In this section I discuss the epistemic justification for a category ‘space’ in interpretation of the poems and the *Histories*.

One might think that in ancient history especially, because the evidence is so scarce and arbitrarily preserved one must address whether one can write a true account given the available exiguous materials before deciding how to do it. However, as Peter Kosso points out in a recent article on the philosophy of historiography, distance in

⁸ Alexandra Lianeri, ‘UNfounding times: The idea and ideal of ancient history in Western historical thought’ in Alexandra Lianeri (ed.), *The Western time of ancient history*, Oxford University Press, 2011, pp3–30.

time not only implies (usually) loss of material but can in compensation confer a desirable critical distance.⁹ The ‘selection’ of material happens anyway in the hands of the historian. In the case of history of ancient Greece the critical distance is long and the loss of material between Homer and Herodotos substantial.

Herodotos’ narrative explicitly concerns the past so that it is, in terms of the modern philosophy of historiography, explicitly the material for the writing of historiography in the present: his narrative is the object of study. Homer’s narrative also explicitly concerns the past, though that does not mean there is a straight-forward path for the extracting of history—a true account of Mycenaean or dark Age Greece—from the poems. Interpreting the poems as historical documents requires methodological subtlety, a demonstration of which is offered by M. I. Finley who made a lucid argument for the sort of material and cultural environment obtaining for Homer’s contemporaries, arguing mainly from the *Odyssey* itself: *The world of Odysseus* is social history.¹⁰ In fact there is a strong body of work which does use the Homeric poems as a source for historical narrative because they are ‘implicitly rich in facts about cultural values’.¹¹

Kosso makes another valuable point that though the methods of archaeology and historiography differ—‘historians study the past through words [whereas] archaeologists study the past through objects’—it does not follow that archaeology can deal only with the physical past and historiography only with the mental past.¹² R. G. Collingwood made us familiar with ‘the idea of history’, which has more recently been called historiography, as always consisting of the history of thought—but the history of thought can be constructed by rubbish and ruins. Thus the stuff of archaeology, the ‘mindlessly left behind’,¹³ seems in reality to give archaeology the edge in overcoming the objectivity problem and the bias in selection of evidence on which to construct an account of the past. The bias in evidence problem discussed by Kosso is the over-riding consideration for ancient historians; and of all the periods and texts the issue is most obvious for the Homeric poems and Herodotos because

⁹ Peter Kosso, ‘Philosophy of historiography’ in Aviezer Tucker (ed.) *A companion to the philosophy of history and historiography*, Oxford, Blackwell, 2009. doi:10.1111/b.9781405149082.2009.00004.x (13 unnumbered pages), at p7.

¹⁰ M. I. Finley, *The world of Odysseus*, 2nd edn., London, Chatto & Windus, 1977.

¹¹ Kosso, ‘Historiography’, p7.

¹² Kosso, ‘Historiography’, p6.

¹³ Kosso, ‘Historiography’, p5.

they stand first and alone in their respective canons. As opposed to ancient documentary evidence which though certainly remnant and fragmentary in the case of records from ancient Greece between c700BC and 400BC has been selected in both senses, only a small proportion still exists and that which was created was already selected according to contemporary cultural and societal values. Lianeri uses the phrase ‘historical thought in context’ to express the object of historiography. Historical thought in context includes ‘past historical thought’, which ‘acquires a distinct relation to the subject of knowing constituting at once its precondition and its alternative’.¹⁴

The problem of space, I suggest, is a parallel ‘mindlessly left behind’ historical artefact at the cognitive level; and this has been the common operating assumption of scholars taking many different approaches which Tsagalis discusses by invoking the 14 categories proposed in Stephan Günzel’s *Raum*.¹⁵

1. Historical space: archive and place of remembrance
2. Political space: public and state of emergency
3. Economic space: megacities and globalization
4. Corporeal space: gender and performativity
5. Postcolonial space: thinking about borders and thirdspace
6. Social space: spatialization
7. Technological space: Enträumlichung
8. Media space: images—signs—cyberspace
9. Cognitive space: orientation—mental maps—organizing and processing data
10. Topographical space: nature and heterotopy
11. Urban space: square—city—agglomeration
12. Tourist space: mobility and imagination
13. Poetic space: chronotopos and geopolitics
14. Epistemological space: labor and the geography of knowledge

Tsagalis’ own synthetic study unifies them under the visual, as his title ‘From listeners to viewers’ tells. Like Clay, Tsagalis analyses the verses which place or

¹⁴ Lianeri, ‘UNfounding times’, p3.

¹⁵ Tsagalis, *Listeners to viewers*, p4 (after Stephan Günzel, *Raum: Ein interdisziplinäres Handbuch*, Stuttgart, 2010).

move characters. He shows that they are devised by the poet to induce an imagined space for the audience. This may be a very specific space for affective purposes: for example, the space ‘clear of bodies’ (*Il.* 199 ἐν καθαρῷ, ὅθι δὴ νεκύων διεφαίνετο χῶρος).¹⁶

2. Some particular historical problems

In Part II I ask whether visualisation of space concepts in Homer and Herodotos via pseudo-maps is part of an historiographic praxis of visualisation itself and so relevant only to the spatial concepts held by their makers, for example Charles Müller and the readers of Müller’s work; or whether such visualisations are genuinely connected with Herodotos’ own spatial concepts as part of the development of ‘historical thought in context’ i.e. the historiography of space in Herodotos. Does a substructure of visualisation presuppose, in cases where the visualisation is of terrain, a real geographic knowledge? This is a question which is fundamental and implicit in much Homer scholarship.

Autopsy seems to bypass any hermeneutic problem. Its premises are that there was a place described by Homer and that that place will be recognisable by any other person with the usual equipment of eyes and limbs: every human being sees the same landscape, and given a reasonable description can match the description to the landscape. The assumption of this premise is demonstrated in William Lubenow’s comment on Walter Leaf’s motivation: that Leaf had ‘keen geographical and topographical sensitivity’—his only comment on the connection between Leaf’s philological work and his work on ancient Greek geography.¹⁷ But it is indicative of at least a slight concern that that brief biographical notice of Leaf’s scholarly output Lubenow feels the need to comment on the connection between the two forms of output and offer some explanation. Is that explanation acceptable? Or would it be if explained a little?

My purpose here is specifically to explore Leaf’s own beliefs about the validity of his autopsy process and to decide on what basis it would persuade any reader of *Troy: A study in Homeric geography*.

¹⁶ Tsagalis, *Listeners to viewers*, pp25–26.

¹⁷ William C. Lubenow, ‘Leaf, Walter (1852–1927)’, *Oxford dictionary of national biography*, 2004 [<http://www.oxforddnb.com/view/article/34454>, accessed 6 Nov 2007]

For the purposes of establishing the argument of this thesis I have to demonstrate that a category of ‘space’ is legitimate and useful in speaking of Herodotos’ Histories and the Homeric poems. And, further, my category of space, as will be seen in Parts II and III, is not a concept abstracted or derived in the first place from a continuous history of Western historiography but from modern very recent research in, on the one hand, cognitive science (Part III) and on the other visualisation (Part II). This approach might seem to be avoiding historiography completely, but as Lianeri makes clear in her discussion of Hartog’s notion of ‘regimes of historicity’, the present period in terms of the writing of history is one of a ‘growth in power of the category of the present: the establishment of an all-encompassing present, which fabricates the past and future that it needs each day.’¹⁸ Our current regime of historicity encompasses the permission to go outside the previous hermeneutic of interpretation of classical texts, exegesis which surrounds each phrase and word of the text with an envelope of facts drawn from topographical and archaeological investigations, and other disciplinary ideas not explicitly concerns of Herodotos; but that permission gives no particular guidance on the justification or the methodology to be employed in making those extra-disciplinary ideas relevant.

Lianeri refers to the absence from Momigliano’s work of consideration of the distinction between the ‘time of the words of history’ and the ‘time of the things of history’¹⁹ and focuses her introduction on how this gap in our understanding of modern historiography should be filled. She notes ‘the difficulty in maintaining the division between subject and object of research’ and the need to ‘grasp the historicity of categories that sustain the understanding of our object’.²⁰ This is relevant to the category ‘space’ in historiography. In discussing the accounts of Hartog and Burke of the role of temporalities and the history of regimes in western historiography, Lianeri remarks that the research object is “the notion of ‘regime’ itself [which] is posed as a theoretical category, which is distinguished from debates about historical ‘data’”.²¹

I propose that space is another such category—one proposed as a theoretical category which is not simple historical data but the conception, for example the conception in

¹⁸ Lianeri, ‘UNfounding times’, p11.

¹⁹ Lianeri, ‘UNfounding times’, p5 and n7 (after Jacques Ranciène, *The names of history: On the poetics of knowledge*, University of Minnesota Press, 1994).

²⁰ Lianeri, ‘UNfounding times’, p4.

²¹ Lianeri, ‘UNfounding times’, p12.

Herodotos' mind. This presents a problem as interesting and as difficult as the problem of time and temporalities as discussed by Lianeri: a modern historian can visit Egypt as easily (or rather more so) as Herodotos and look at the same monuments, but will he or she 'see' the same things and retain the same impressions?

As Peter Kosso plainly puts it: 'In order to get information from the past we must add some information from the present . . . Pure, objective information from the past, passively given to us in the present, seems to be impossible.'²²

The warrant for 'adding information' to understand space in our texts comes from other fields.

In a philological vein, Geoffrey Horrocks started a new direction by applying the then very new ideas in linguistics based in structural semantics to the language of Homer in his 1981 book *Space and Time in Homer*.²³ Horrocks did indeed justify a new approach by showing what questions the Homeric grammars did not answer. He then shows how Bennet's componential analysis can be applied to the *Iliad* and the *Odyssey* by analysing every locative phrase. Though ground-breaking, this was not followed up by other scholars, in fact the next study which combined philological methods with space as a category of literary analysis is Clay's *Homer's Trojan Theatre* published 30 years later. Meanwhile, Brigitte Hellwig's *Raum und Zeit in homerischen Epos*²⁴ had, unlike the Horrocks's study, but like those of Purves and, especially, Clay, had taken a macro view of the whole *Iliad* figured as a theatre in which Homer conjured the actors alternately moving them to the 'foreground' or 'background' according as he wanted to engage the listeners' attention.²⁵

On the concept 'space' itself we can appeal to the warrant borrowed from cognitive science which offers its new results and categorisations as timeless / applying across all periods and cultures. Anthony Snodgrass has pointed eloquently in *An archaeology of Greece* to the massive changes in society in this period and their probable cumulative effects on individuals: the pressures as well as the opportunities

²² Kosso, p8.

²³ Geoffrey C. Horrocks, *Space and time in Homer: Prepositional and adverbial particles in the Greek epic*, New York, 1981.

²⁴ Brigitte Hellwig, *Raum und Zeit in homerischen Epos*, Hildesheim, G.Olms, 1964.

²⁵ Hellwig, *Raum und Zeit*, pp71–72 and Conclusion; I am grateful to Rachel Hendery for help with German—indeed for a free translation of a large part of the book.

of population increase and the intellectual ferment generated.²⁶ Francis Cornford suggests that one of the profounder changes in ideas in this period was the very concept of ‘space’.²⁷ Cornford’s argument is that some time in the period between 600BC and 300BC the concept of space changed from one of space-in-which (‘room’) to being a medium of containment of other things of infinite extension. Surprisingly, the question has not been taken up explicitly by Herodotos scholars, but the *Histories* must be a special part of the examination of the question. In fact, there is a general epistemological difficulty in taking the histories as evidence for history (in the sense of ‘the things of history’²⁸) because the wide scope and various nature of his enquiries and results forces modern scholars to interpret Herodotos ‘according to Herodotos’, that is, on his own terms. In the Introduction to the commentary on Book 2, A. B. Lloyd argues for Herodotos as ethnographic evidence for Egyptian life in the fifth century BC, or at least of the attitudes of Greeks in Egypt. This is the minimum level of interpretation involving acceptance of Herodotos’ observations and descriptions, as his own, straightforwardly made, intended as mimesis.

The warrant from cognitive science seems to come from the very lack of consciousness of historicity which I remarked above, that is, the assumption made by any of the sciences on the universal applicability of results across time and space. We then it seems, may freely ‘add’ a modern idea—of specific navigational abilities being divided into route and landmark knowledge, for instance—to be ready to fully interpret Herodotos’ remarks.

Lianeri addresses the question of time as (I assume) it has been borrowed from the physical sciences by historians so that within the humanities it became an unproblematic “quantifiable continuum”.²⁹ In her project to “account for the history of western historical thought” she argues that such a notion must be repudiated in favour of an “historiographical focus on time”:

a historiographical focus on time implies a shift from a series of historical instances that follow one another to historical temporalities, in other

²⁶ Anthony M. Snodgrass, *An archaeology of Greece: The present state and future scope of a discipline*, Berkeley, University of California Press, 1987.

²⁷ F. M. Cornford, ‘The invention of space’ in H. A. L. Fisher (ed.), *Essays in honour of Gilbert Murray*, London, Allen & Unwin, 1936, pp215–235.

²⁸ See Lianeri, ‘UNfounding times’, p5.

²⁹ Lianeri, ‘UNfounding times’, p10.

words, to the multiple ways of experiencing and conceptualising time which take within history and through which history becomes meaningful. This transition defines time as a field in historical research, the incongruities of which posit the need to pluralise its name and the account for the specificities which invite us to consider not a singular time but many.³⁰

Such an historiographic focus at the very least demonstrates that the concept of space too must be periodised or made subject to an historiographic focus. We have seen that Cornford proposed a break which may have affected Herodotos' view of the world in a more or less profound way. An obvious project would be a) to discover evidence in the *Histories* of an awareness of that debate, if it was a current debate in the late fifth century, or b) if it was an old debate by the time he was writing the *Histories*, an acceptance by Herodotos of the newer infinite extension idea.

Many writers, mostly recently, for Homer, Tsagalis, begin their discussion by noting the variety of ways an idea of space can be implicated and approached, and offering, with due misgiving, a definition or categorisation, as I noted above.³¹ This leaves a gap in terms of justification for application of the modern idea (or ideas) of space to past historical writing. Herodotos' awareness of other peoples and their environments is so obvious as not to need stating, but the ease with which we follow Cicero in recognising him as the 'first geographer' as well as the first historian is a relict of the modern period of classical studies and the 'battle of the books' when 'ancients' and 'moderns' were set in opposition, with victory to one camp only possible.³²

This thesis takes the parameters and assumptions about a modern semantic category 'space' and notes how they have been and are being applied to the understanding of space in the texts. My 'object of research' is therefore both the Homeric poems with the *Histories* on one hand and a certain set of modern studies on them. The 'subject' of the research is the inexplicit way which the three threads I identify have asserted their knowledge of the space in Homer and Herodotos.

³⁰ Lianeri. 'UNfounding time', pp10–11.

³¹ Tsagalis, *From listeners to viewers*, the 14 categories of space are listed (pp4-5) and discussed pp5-16.

³² On the battle of the books see for example Joseph Levine, 'Et tu, Brute: History and forgery in eighteenth-century England' in Robin Myers & Michael Harris (eds.), *Fakes and frauds: Varieties of deception in print and manuscript*, Winchester, St Paul's Bibliographies, 1989, pp71–97.

3. Overview

Autopsy

The first tradition is that of personal investigation of the places in the texts in order to identify them. The tradition of autopsy, a mode of gathering knowledge by going to see for oneself, is embedded in the primary texts themselves. It is prominent as a claim in Herodotos' *Histories* and begins even before then, in the form either of a positive or a negative claim (not knowing because one was not there) in the Homeric poems: both the *Iliad* and the *Odyssey* make periodic claims about epistemic status. These claims have formed a starting point for scholars who have wanted to extend and make use of the geographic statements in the *Iliad*, the *Odyssey* and the *Histories*. Thus autopsy as the proper source of knowledge is the tradition with the deepest origins. It makes its appearance at the very beginning of the *Odyssey*: the third line of the poem is an epistemic claim attached to Odysseus himself.

πολλῶν δ' ἀνθρώπων ἴδεν ἄστεα καὶ νόον ἔγνω,

he saw the cities of many peoples and got to know their mind

Od. 1.3³³

This is a claim important to the narrative as a whole given that a third of the poem will be a first-person telling by Odysseus. The negative form of the same claim also appears in the *Iliad*, on the poet's behalf this time, in the form of the invocation to the Muses before the start of the Catalogue of Ships:

Ἔσπετε νῦν μοι Μοῦσαι Ὀλύμπια δώματ' ἔχουσαι·

ὑμεῖς γὰρ θεαὶ ἐστε πάρεστε τε ἴστε τε πάντα,

ἡμεῖς δὲ κλέος οἶον ἀκούομεν οὐδέ τι ἴδμεν·

Tell it me now, Muses who have homes on Olympos;

For you are gods and are present and know everything,

but we hear only the report and see nothing;

Il. 2.484–6

³³ All quotations from Homer and Herodotos are from the Oxford Classical Texts editions: *Homeri Opera*, edited by David Munro and Thomas Allen, (*Iliad* 3rd ed. Oxford, 1920, *Odyssey*, 2nd ed. 1917 and 1991), Herodotos *Historiae* ed. by Charles Hude, 3rd ed. 1926 and 1927). Except where noted otherwise, all translations are my own.

Here the poet defers to the Muses as knowing more places and people than he does himself (by implication of 2.485 ἴστέ τε πάντα= you know every fact and 2.493 ἀρχοῦς αὖ νηῶν ἐρέω = I will tell only the ships' commanders ...).

Strabo, though he does not begin the tradition of critique of Homer's geographic knowledge, is our most expansive ancient guide to it. His extensive treatment, in Book 1 of the *Geography*, of Homer as the 'first geographer' weaves together belief in (most) Homeric places with awareness that the poems had been rejected as source material by earlier writers.³⁴ This is more than mere antiquarianism on Strabo's part, as F. Lukerman saw:

Strabo and Eratosthenes, in recounting the origins of their discipline, looked back to Homer as their earliest source; not because they found "geography," "chorography," and "topography" in the poet, for they did not, but rather because they found a way of thinking, an epithetical pattern of speech relating man to place, which they themselves used.³⁵

The epithetical pattern of speech—the Catalogue being but the tour de force example—is manifest throughout the *Iliad* and the *Odyssey* and has enticed and confused many commentators. If Homer says Thisbe is many-doved, how can we not believe it? More precisely, given that there is a Thisbe, and Homer and we agree where it was, it must have had many doves. The truth (impossibility of disproof) of the adjective is transferred to the truth of the whole: the system of adjectives is apparently informative yet persistently elusive. In the classic modern study of the geography represented in the Catalogue, Richard Hope Simpson and J. F. Lazenby devote much space in each case to deciding whether the epithet matches the physical conditions as observed by them, or could have matched. In some cases they use this as an identifying criterion, in other cases the epithet is information confirming a secure identification by placename. Their study combines a commentary on the

³⁴ My reading of Strabo has been greatly helped by the elegant translation of Horace Jones, *The Geography of Strabo*, 8 vols, London, Heinemann, 1969 [1917]. The whole of sections 1 and 2 of Book 1 of the *Geography* are an apologia for Homer as geographer; Book 1.1.11 has Ὅμηρος τῆς γεωγραφίας ἤρξεν.

³⁵ F.Lukerman, 'The concept of location in classical geography', *Annals of the Association of American Geographers* 51.3 (1961): 194–210 at 196.

language of the whole Catalogue with reasoning from autopsy based on extensive fieldwork in Greece conducted over four years.³⁶

The location of ‘sacred Ilios’, the scene of the *Iliad*, and the question of whether the places of Odysseus’ wanderings in the *Odyssey* were intended for references to actual places by the poet are parts of a multi-faceted ‘Homeric question’: the body of uncertainty which exists in relation to the dates, authorship and mode of composition of the *Iliad* and the *Odyssey* as well as the relationship of the two poems. To anyone attempting to treat the poems as documents of fact – almost inevitable by virtue of their supreme importance as the earliest Western literature – it is obvious that they contain more geographic than temporal data. By contrast, the geographic data in Herodotos’ *Histories* are a secondary, though substantial, part of a presentation of the causes and events of the war between Greeks and Persians (490-479BC); as such one might assume that the ordinary methods of source criticism could be applied. Nevertheless some of the commentary on Herodotos on geography has a curious similarity to the geographical part of the Homeric question – commentary which relies on the historical accuracy of place exists alongside commentary which rejects it altogether. There thus exists both a ‘liar school’ and a ‘believer school’.³⁷ In short, Herodotos’ ‘ever enigmatic position at the beginning of historiography’³⁸ determines that attention must be paid to the layers of narrative and their different epistemic status³⁹ – as much as to Homer’s.

The association of the *Iliad* with a place in the north-west corner of modern Turkey has been the subject of study ever since Demetrios of Skepsis in the second century BC was interested enough to write 30 books on the Trojan Catalogue.⁴⁰ In modern

³⁶ Richard Hope Simpson & J. F. Lazenby, *The catalogue of the ships in Homer's Iliad*, Oxford, Clarendon Press, 1970; their fieldwork, in which they had the help of friends and partners to cover the ground, took place between 1957 and 1961 (pvii).

³⁷ W. Kendrick Pritchett, *The liar school of Herodotos*, Gieben, Amsterdam, 1993.

³⁸ Egbert J Bakker, Irene de Jong & Hans van Wees (eds), *Brill's companion to Herodotus*, Leiden, Brill, 2002, p xvii.

³⁹ See Carolyn Dewald, ‘“I didn’t give my own genealogy”: Herodotus and the authorial persona’, in Bakker et al., *Herodotus*, pp267–289.

⁴⁰ According to Strabo Book 13.45, φροντίσαντί τε τοσοῦτον περὶ τούτων ὥστε τριάκοντα βίβλους συγγράψαι στίχων ἐξήγησιν μικρῶ πλειόνων ἐξήκοντα, τοῦ καταλόγου τῶν Τρώων. Although the tone may seem slightly sarcastic here, Strabo is in fact paying homage to a fellow scholar and Leaf concludes that he (Strabo) had no personal knowledge of the Troad and followed ‘good and accurate authorities’ for the whole of his account and especially Demetrios for Troy (Walter Leaf, *Strabo on the Troad: Book XIII, Cap.I*, edited with translation and commentary, Cambridge University Press, 1923, pxl).

times Walter Leaf, who had edited and translated the text, turned to the topography of Troy and attempted, by his own autopsy, to prove Homer's.⁴¹ Nearly two generations later J. M. Cook unwound the complex moves of traveller-observers and text commentary extending back many generations, in order to write the historiography of the Troad. He opens with the acknowledgement that 'a study of the topography of the Troad must begin with either Homer or Strabo'.⁴² Cook's study is a newer one than Leaf's by 60 years; it is quite sufficiently thorough, and with the advantage of information from two continuations of the excavations. Why, then, would one be interested in Leaf's study? Leaf's book on the geography of the Troad and of Troy explicitly – like Cook's – 'begins with' Homer; but unlike Cook, Leaf uses Homer to deduce something about the place. His intention is made explicit on the first page:

to illustrate the significance of impressions gained by personal contact with the scenes of history.⁴³

Leaf does not use the word 'autopsy' in *Troy* but as this quotation from it shows, he is very concerned with the mechanics of his own *opsis* and the conclusions legitimately to be drawn. Leaf's was the first generation of editors obliged to deal with the certain knowledge of the identification of Troy. Once Heinrich Schliemann's excavations of 1871–2 had uncovered the indubitably ancient walls at Hissarlik – whether or not he himself dated the levels correctly – the uncertainty and the search were over. Leaf's project, however, gained momentum. As someone intimately acquainted with the text of the *Iliad* and who also had a 'keen geographical and topographical sensitivity'⁴⁴ the resolution he sought for the geographic part of the Homeric question was to make all parts of the text work to some pattern. Yet as a separatist – a man persuaded that there were layers in the poem which had been created by different hands – it must have seemed that an argument from generic internal consistency was not rationally available to him, and that the only pattern guaranteed to be consistent was an actual topography.

⁴¹ Walter Leaf, *Troy: A study in Homeric geography*, Freeport, NY, Books for Libraries, 1971 [1912].

⁴² J. M. Cook, *The Troad: An archaeological and topographical study*, London, Oxford University Press, 1973, p1.

⁴³ Leaf, *Troy*, p1.

⁴⁴ William C. Lubenow, 'Leaf, Walter (1852–1927)', *Oxford Dictionary of National Biography*, 2004 [<http://www.oxforddnb.com/view/article/34454>, accessed 6 Nov 2007]

Nearly 90 years after Leaf's study, another classicist took up the problem again inspired in his turn by familiarity with the geography of Homeric texts. J. V. Luce reprises Leaf's *Iliad* investigation and adds an autopsy investigation along similar lines of the geographic problems of the *Odyssey*. The *Odyssey* raises the same geographical identification problem as the *Iliad* in two respects: the places of the wanderings of Odysseus before his return to Ithake, and the problem of whether modern Ithaki is the Ithake which is Odysseus' island kingdom in the poem.⁴⁵ In *Celebrating Homer's Landscapes: Troy and Ithaca revisited*, Luce combines knowledge of the text and its transmission with enthusiasm for soles of the feet investigation.⁴⁶ In this very well-illustrated book, which presents his investigation, it becomes obvious that with every step Luce feels that he gets closer to Homer's Ithake and even – such is the intimacy of the search – to Odysseus', Telemakhos' and Eumaeus' Ithake.

The method of autopsy presupposes a thing which one is going to see. Walter Leaf and J. V. Luce went to Troy text in hand in order to find the places spoken of by Homer, but this did not mean that they were blind to inconsistencies in the text: their very familiarity with the narrative and language prevented that. I use an inferential method of comparison with mainstream twentieth century geographers to draw out the nature of their method. Autopsy is an explicit and important claim made by Herodotos in the *Histories* though, as for the Homeric poems, there is seldom external data to confirm or refute it and it is therefore difficult to assess *per se*. In one of the few book-length studies O. Kimball Armayor mounted a substantial case for re-considering Herodotos' autopsy and the autopsy of archaeologists against each other.⁴⁷ Armayor's case – and Herodotos' – is treated partly as a problem in autopsy and partly as a problem in descriptive language in Part III Cognition.

Visualisation

⁴⁵ That this is still a live issue is shown by the recent book by Robert Bittlestone, *Odysseus unbound* (see above note 4). The book opens in the self-revelatory style not untypical of the autopsy genre: 'It is 20th August 1998 and I am standing on top of a hillside on the mainland of Greece opposite Lefkas island with my daughter Nicola and eldest son Simon, then aged 13 and 15. It is nearing sunset and we have scrambled up to see these deserted ruins.' (p12) Cf. also 'My wife Jean and I have taken a week's spring break to explore some of the palces that these Odyssean clues are suggesting . . . ', (p211). Bittlestone is an amateur investigator who does his own walking and looking, and relies on experts for the philological and geologic parts of his enquiry. (Robert Bittlestone, James Diggle & John Underhill, *Odysseus unbound: The search for Homer's Ithaca*, Cambridge University Press, Cambridge, 2005).

⁴⁶ J.V. Luce, *Celebrating Homer's landscapes: Troy and Ithaca revisited*, New Haven, Yale University Press, 1998.

⁴⁷ O Kimball Armayor, *Herodotus' autopsy of the Fayoum: Lake Moeris and the labyrinth of Egypt*, Amsterdam, Gieben, 1985.

The second mode of thinking about space in Homer and Herodotos is to draw it; graphical representations are the subject of Part II.

The research for this part began when I noticed that a tradition of maps in the form of ‘The World according to Herodotos’ and the like, seemed to be a graphic genre peculiar to ancient Greek authors. This style of map appears as adjuncts to editions of Greek texts and to histories of geography as well as in classical atlases and even general historical atlases, though they are less common now than in nineteenth-century atlases. These pseudo maps, as I call them for the sake of a handle, are used even by scholars of ancient Greek cartography such as Oswald Dilke to illustrate some cartographic developments. In his survey of Greek and Roman maps, Dilke necessarily takes an eclectic view of the definition of cartography for the long period he covers (from Homer to the late mediaeval period), including in it predecessors such as the Piacenza bronze liver (concluding that it is ‘not a map; at best it may be described as a schematic model’⁴⁸) and taking his discussion up to the early Renaissance mapping in the manuscripts of Ptolemy’s *Geography*.⁴⁹ Dilke’s figure 7 and figure 8 – both apparently drawn by the author – are labelled ‘Conjectural reconstruction of Hecataeus’ map’ and ‘Herodotus’ view of the world’ respectively; they are by my definition pseudo maps. Dilke, of course knew the difference between an ancient Greek map and his own ‘conjectural reconstructions’. It is noticeable that Dilke’s pseudo-maps and those of other historians of ancient Greek geography and cartography—those, for example, of J. O. Thomson who included a series of pseudo maps, including a ‘map of Hecataeus’⁵⁰ in his *History of Ancient Geography*—are cast in very similar form. It could be argued that they are similar because they are a minimal form trying accurately to represent minimal data; yet there are other ways of graphically representing that same data, as my discussion of the graphics of Myres, Muller, Bunbury, Hartog and others will show (chapters 4 and 5). What is interesting about graphics in the pseudo style is their very lack of comment or commentary, let

⁴⁸ O. A. W. Dilke, *Greek and Roman Maps*, London, Thames and Hudson, 1985, p20.

⁴⁹ Dilke’s *Greek and Roman Maps* has been criticised for being too credulous in handling of the evidence for Greek and Roman mapping and for seeing a map under every rock. For a summary of the critique, and attempt to put it in the context of the changes in the practice of the history of cartography see Richard Talbert & Richard Unger (eds.), *Cartography in antiquity and the Middle Ages: Fresh perspectives, new methods*, Brill, Leiden, 2008, pp10–27, especially pp10–15.

⁵⁰ J. O. Thomson, *History of ancient geography*, Cambridge, 1948. Figure 11 on p99 is the map of Hekataios – it has the further note in the legend ‘(much of the drawing is very conjectural)’, but note that his figure 12 on p99 is labelled merely ‘Map of Herodotus’.

alone critique, by their producers or anyone else. They are graphic representations, therefore true and stand-ins for 10,000 words, their creators seem to be saying.⁵¹

Graphics of this form were common in works on ancient geography or classical atlases published in the nineteenth century, or were added to the commentary and more closely associated with the primary text. They were assembled either singly or as a series showing implicitly or explicitly a development of geographical knowledge in ancient Greece. In whatever mode, singly or in series, the graphics I call pseudo maps have generally not been well integrated in explanatory terms with the text they are derived from. What kind of knowledge they represent often remained an unaddressed question. Whether they function merely as mnemonics and sketches of geographic knowledge, or rather as representations of the mental model held by Homer or Herodotos is a question which can only begin to be addressed by placing them in the context of production originating with editors of texts.

What can one do with these drawings, which are neither ancient Greek maps nor modern cartography but something in between? Notwithstanding that they are labelled maps and have map-like form I focus on their intention to illustrate text and consider them as part of a graphic tradition which has a particular relation to texts: they are ‘illustrations’ in the original sense.

The graphics considered in Part II could be discussed within the history of cartography because they are attempts to realise a view of geographic data; but the primary and special need is to consider them as illustrations of texts. Both pseudo maps and schematics need to be read according to their peculiar forms and their particular intention. This is an exercise in graphic seeing and interpreting. For the case of schematic forms in particular at least one possible analogue is the schematic representations of software systems which have been embedded in the professional practice of software development since at least 1990s,⁵² but given the minimal overlap between these fields this must remain an analogy only.

⁵¹ See Jill Larkin & Herbert Simon, ‘Why a Diagram is (sometimes) worth 10000 Words’, in Chandrasekaran et al, *Diagrammatic reasoning: Cognitive and computational perspectives*. AAAI, Cambridge, MA, c1995 (originally published in *Cognitive Science* 11(1987): 65–100).

⁵² Following closely on the development of the relational model (E. F. Codd, ‘A Relational Model of Data for Large Shared Data Banks’, *Communications of the ACM*, 13.6 (1970): 377–387), Chen proposed a graphical form for capturing a normalised data model (Peter Chen, ‘The entity relationship model: Toward a unified view of data’, *ACM Transactions on Database Systems* 1.1(1976): 9–36); and

Cognition

The cognitive-linguistic tradition, discussed in Part III, is the most recent. Cognitive linguistics developed within linguistics / cognitive sciences in the 1970s but begins to be manifest in classical text criticism only more recently. Research outside the formal cognitive sciences stimulated many to think about the kind of knowledge people have of their familiar environments. This was initiated by the imaginative essay by Kevin Lynch, published in 1960, *The Image of the City*. Lynch and colleagues conducted interviews with residents of four US cities about their awareness of various quarters of their home city and the routes they used to travel through it. The study, which began as practical research in urban planning, turned out to have much wider implications because the researchers identified a small set of concepts which seem to be fundamental to perception of space not only in the modern urban environment but in all environments. The ontology of concepts Lynch and colleagues identified is expressed as five named features: paths, edges, districts, nodes and landmarks.⁵³ The ‘image’ in the title of the book is not so much a reference to a graphic image or pictorial memory as a word to indicate the whole of the sensory and remembered knowledge of a familiar space. This whole knowledge, significantly, is the key which enables researchers in other fields to investigate specific aspects of spatial knowledge. Benjamin Kuipers took these elements to develop robotic control programs. Kuipers, who works within the discipline of Artificial Intelligence, begins with Lynch’s elements as defining perception of, and orientation in, space and makes them the basis for the perceptual systems of the robot. If the robot moves about successfully (and it is reported to have done so) then this is some confirmation that the elements are useful ones for understanding human wayfinding and position tracking ability. The robot’s success does not prove the accuracy of Lynch’s elements as no deductive-inferencing system can do that; but Kuiper’s work from cognitive science which I discuss in Part III is productive of a meta-language of human spatial concepts. The idea of a spatial mental model can also be investigated by observing behaviours in wayfinding for example, the type of errors people commonly make, or by testing how well they convert knowledge of a particular space obtained via viewing a map into a description of the space which someone can follow.

graphical methods were quickly developed for whole-of-system analysis and design laid out in two pioneering works: Chris Gane & Trish Sarson, *Structured systems analysis: Tools and techniques*, Englewood Cliffs, N.J, Prentice-hall, 1977 and Tom DeMarco, *Structured analysis and system specification*, New York, Yourdon, 1978.

⁵³ Kevin Lynch, *The image of the city*, MIT Press, Cambridge, Mass., 1960, pp46–48.

The spatial mental model can also be investigated by attention to the specific workings of language. The naming of Lynch's five concepts hints at the difference between description of metric or geometric space and space perceived by people. In Lynch's ontology a point in geometric space has two forms, node and landmark, and a line two forms, path and edge. Lynch himself used a particular communicative situation (his research tool was interviews) to explore the way people talked about environments which they negotiated every day. He was thus able to elicit a descriptive vocabulary and hence form a general model. Lynch's environments were fixed and familiar—his respondents had spent most of their lives within them. Linguists working in the semantics of space have elicited the natural language used in (usually) small- and medium-scale environments by creating controlled interactional situations. One of the more interesting specific results, obtained by Veronika Ullmer-Ehrich, was that point of view can be determined from a simple word order change. A classicist analysing a single fixed text is not working in so free a paradigm; in this situation the requirement is to work backward from the text to the concepts it embodies, then forward again to (one hopes) a more accurate understanding of that text.

The concept of linguistic universals, a research programme begun by Joseph Greenberg,⁵⁴ proposed that language typology could proceed by comparison of 'features' in common. The idea of implicational universals in particular encourages linguists to think that generalisation from one language to another may be valid. Based on this general principle it is legitimate to propose that some feature well understood semantically in modern European languages may also apply to ancient Greek. The pioneering study by a classicist, Geoffrey Horrocks' *Space and time in Homer*,⁵⁵ took advantage of this principle to apply Bennett's componential analysis of English prepositions and to show how the 18 true prepositions of ancient Greek work to make real distinctions of position in space and can signal the point of view of the observer. Horrocks' work, together with other developments in general semantics and the grammar of space, make it possible to talk about how space is presented in the texts of Homer and Herodotos in micro terms. A 1983 essay by Leonard Talmy, 'How language structures space', was an early paper which had a powerful ripple effect on

⁵⁴ See Joseph Greenberg, *Language universals, with special reference to feature hierarchies*, The Hague, Mouton, 1966, for the first articulation of the idea.

⁵⁵ *Space and time in Homer*, 1981, Arno Press, New York.

other fields.⁵⁶ Although Talmy's analyses in that essay are for English, the claim, backed up by other studies, is that they are universals of language. At the micro level of language the position of objects in space is expressed by specifying one object, the 'figure', with respect to another object, the 'ground'. In Indo European languages the work of stating a relationship between figure and ground is frequently performed by a prepositional phrase: 'the cat sat on the mat', 'the car is in front of the house', etc., where the choice of form makes the cat / car the figure and the mat / house the ground (whereas 'I saw a cat and a mat' makes no statement about the cat or the mat being figure or ground, or about any figure or ground).

The critically important insight by Talmy is that the relationship between figure and ground is more frequently topological rather than metric. (A topological relation expresses relationship of contiguity and containment rather than distance and direction.) The cat is above the mat, in contact with its surface, which is implied to be horizontal: this is all achieved by 'on'. The topological versus metric distinction turns out to be very important in spatial cognition generally as is shown by a number of cross-linguistic and cross-disciplinary studies at large and small scales. Further cross-linguistic work by Stephen Levinson and colleagues demonstrates that three frames of reference are also universals.⁵⁷ Frame of reference (FOR) is the relationship implied in every spatial reference between speaker and object(s) spoken about; it expresses the point of view being taken in an expression such as 'the cat is in front of the house'. In this example the expression is ambiguous between an intrinsic frame of reference (in which 'in front of' refers to the intrinsic front of the house) and relative frame of reference (in which the cat is 'in front of' the house with respect to me the speaker – so if I am at the back of the house the cat is too). Ambiguity between intrinsic and relative frames of reference is common in other languages as well as English. An absolute frame of reference would say 'the cat is to the north of the house'; an absolute FOR is not commonly used in English for other than large-scale expressions, though this is not true for some other languages, which may in fact have only an absolute FOR available. The metalanguage(s) developed by the cognitive

⁵⁶ As Tversky and Lee noted in 2011: 'In 1983, Leonard Talmy published an article with that title which has rippled through cognitive psychology and linguistics like a stone skipped on water.' (Barbara Tversky & P. U. Lee, 'How space structures language', in C. Freksa, C. Habel & K. F. Wender (eds.), *Spatial cognition: An interdisciplinary approach to representation and processing of spatial knowledge*, Berlin, Springer-Verlag, 1998, pp157–175.

⁵⁷ Stephen Levinson & David Wilkins (eds.) *Grammars of space: Explorations in cognitive diversity*, Cambridge University Press, 2006.

sciences describe an ahistoric universal set of abilities which were possessed by Greeks of the classical period as well as ourselves. Given that this is so, the bridging question still to be asked is, by what mechanisms of language are Lynch's elements or other primitives of spatial thinking manifest. As this is a developing field in terms of understanding ancient Greek literature only a sketch of potentialities is possible. The material in part III therefore consists of discussion of some very recent work and several brief case studies of particular passages in the *Histories* and the *Odyssey* to illustrate some lines of investigation of the many which may develop.

4. Recapitulation

Indeterminacy and completeness are characteristics of all three types of enquiry into space in Homer and Herodotos, as I try to show in the detailed matter of each part. The method of autopsy is an enquiry with deep roots in antiquity. Rather than write a full history of that enquiry, I do a comparative study to draw out the relationships with modern geographers. Graphical methods of bringing understanding of spatial concepts on Homer and Herodotos are an ancillary to text, at the same time decontextualised. My discussion sketches a graphic history of illustrations of space in Homer and Herodotos. In the final part of the thesis I use the ideas of topological space and perspective to frame discussion of some passages of the *Histories* and the *Odyssey*. This gives some interesting results with regard to what can be inferred about the poet's / writer's mental model.

To summarise: in the three parts of the thesis I discuss autopsy, visualisation and analysis of language structures, which are identified as independent ways of writing commentary on space in Homer and Herodotos. They are placed roughly in order of historical development.

Part I Autopsy

Chapter 1

Historical Autopsy

In this chapter I want to try to make some connections between the writing of two twentieth-century classicists and the geographical content of the Homeric poems. Both Walter Leaf and J. V. Luce wrote about the geographical facts; and both write from great familiarity with the Homeric texts, yet their writing has often been dismissed and oftener ignored. The reason may be that it is not clear into what genre books such as Leaf's *Troy* or Luce's *Celebrating Homer's Landscapes* fit.⁵⁸ In such circumstances it is hard to develop a critique—the method I use here is to identify the criteria used by these autopsy-based studies as the authors make identifications with the Homeric texts.

1.1 Geographical description

The classic analysis of what modern geographers do when they write is H. C. Darby's essay on 'The problem of geographical description'.⁵⁹ The essay, which is important and still much cited, surveys material from many other geographers who have considered and exemplified geographical description. Darby identifies two major difficulties which make up the 'problem':

- (a) that a geographer 'has to describe an area larger than can be seen at one time'; and
- (b) the 'difficulty of conveying a visual impression in a sequence of words'.⁶⁰

He canvasses the attributes of good geographical description including consideration of literary descriptions of landscape—whether executed by literary practitioners or geographers. He concludes that 'mere description' or 'purely enumerative' description even when produced by poets of the 'highest literary skill' does not make good geographical description,⁶¹ it must be allied with an explanatory part in order to qualify.

⁵⁸ Walter Leaf, *Troy: A study in Homeric geography*, Freeport, New York, 1971 [1912]; J. V. Luce, *Celebrating Homer's landscapes: Troy and Ithaca revisited*, New Haven, 1998.

⁵⁹ H. C. Darby, 'The problem of geographical description' *Transactions and Papers (Institute of British Geographers)*. No. 30 (1962): 1–14.

⁶⁰ Darby 'Geographical description', p1.

⁶¹ Quotations from pages 6 and 7 of Darby, 'Geographical description'. The phrase 'mere description' is quoted by Darby from Arnold Guyot, *The earth and man* (2nd edn. 1894), p1 and from

There is a nice example of a geographer making use of vivid imaginative material in descriptions in two uses by E. E. Evans of a vivid image from a story by R. L. Stevenson. Evans uses the expression ‘men as well as waters go downhill from the mountains’ in *France: A geographical introduction*;⁶² and in an essay ‘In the Massif Central’ he writes ‘It was of this Massif Central that Stevenson wrote that all life moves downhill: “only the fish keep their heads upstream”’.⁶³ Both quotations come from a short story called ‘Will O’ The Mill’ which has a very strong evocation of place.⁶⁴ This would make the image natural for Evans to borrow and fits with Darby’s idea: except that Stevenson himself did not apparently intend his story to be set in the Massif Central, or indeed any particular place.⁶⁵

Another twentieth-century geographer who was concerned with the object of study involved in geography and the terminology of geographical description was the American geographer Carl Sauer. Sauer, whose writing spanned a large part of the twentieth century, was a distinguished practitioner of geographical description; one particular idea, that of a “unit concept” in geography, was especially influential. In an essay entitled ‘The Morphology of Landscape’ Sauer addresses the definitional question of geography and landscape: ‘the term “landscape”’, he writes, ‘is proposed to denote the unit concept of geography, to characterise the peculiarly geographic association of facts’.⁶⁶ Landscape in turn must be understood as having two parts: the theoretical abstraction of a ‘site’ referring to the naturally-formed area, designed to be put in opposition to human actions and effects. Landscape then, according to Sauer, makes the ‘content’ of geography, content which is necessarily selected by the individual writer on geography and not preselected and determined by cosmological or geologic forces. The subject matter of geography is thus created by the act of drawing an abstract distinction between the natural and the human—and

A. Hettner, ‘Die Entwicklung der Geographie im 19. Jahrhundert’ (*Geographische Zeitschrift* 4 (1898): 305–320.

⁶² E. E. Evans, *France: A geographical introduction*, London, Christophers, 1959.

⁶³ ‘In the Massif Central’, reprinted in Emyr Estyn Evans, *Ireland and the Atlantic heritage: Selected writings*, Dublin, Lilliput Press, 1996, pp95–97 at p96.

⁶⁴ “It seemed like a great conspiracy of things animate and inanimate; they all went downward, fleetly and gayly downward, and only he, it seemed remained behind, like a stock upon the wayside. It sometimes made him glad when he noticed how the fishes kept their heads upstream.” (‘Will O’ The Mill’ reprinted in Stevenson, *Collected shorter fiction*, pp50–51.)

⁶⁵ Robert Louis Stevenson, *The collected shorter fiction*, edited by Peter Stoneley, London, Robinson, 1991, pp50–69.

⁶⁶ ‘The morphology of landscape’ in Sauer, *Land and life*, pp315–350 at p321.

the separation made opens the way to artificially bringing them into opposition and thereby to ability to talk about an interaction.⁶⁷

Archaeologists, like geographers, follow a professional practice which involves both standard procedures of data collection and assessment and personal observation in the field and they too report their discoveries in words. In a 1994 book which argued a case for a phenomenology of landscape Christopher Tilley claims that naming of places creates them as a human landscape:

The naming and identification of particular topographical features such as sand dunes, bays and inlets, mountain peaks etc., settlements and sites is crucial for the establishment and maintenance of their identity.

Through an act of naming and through the development of human and mythological associations such places become invested with meaning and significance. Place names are of such vital significance because they act so as to transform the sheerly physical and geographical into something that is historically and socially experienced. The bestowing of names creates shared existential space out of a blank environment. By the process of naming places and things they become captured in social discourses and act as mnemonics for the historical actions of individuals and groups. Without a name culturally significant sites would not exist, but only as a raw void, a natural environment. In a fundamental way names create landscapes⁶⁸

Where place naming practices—or more concretely, the actual set of place names—can be uncovered and understood they can be studied for the light they throw on the geographical knowledge of the society in question. Tilley cites as evidence of place naming practices the traditional stories of some small-scale modern societies, such as those of North American peoples and Australian aboriginal communities. Place names are, then, another way to ‘do’ geographical description.

⁶⁷ ‘It is a forcible abstraction, by every good geographical tradition a tour de force, to consider a landscape as though it were devoid of life.’ (Sauer, *Land and Life*, p325.)

⁶⁸ Christopher Tilley, *Phenomenology of landscape*, Oxford, Berg, 1994, pp18–19.

His approach, which draws on the work of philosophers Martin Heidegger and M. Merleau-Ponty, and a ‘phenomenological ’school’ of geographical research’ which includes Yi-Fu Tuan, is focused on ‘the manner in which places constitute space as centres of human meaning, their singularity being manifested and expressed in the day-to-day experiences and consciousness of people within particular lifeworlds.’ [emphasis in original]⁶⁹

Tilley goes on to note that the term ‘landscape’ is ‘highly ideological’⁷⁰—as opposed to the related terms ‘geography’, ‘place’, ‘space’—a fact which might make one to wish to reject it as too value-laden—but that of the available set of terms only ‘landscape’ has a strong visual connotation which is desirable to retain:

By “landscape” I want to refer to the physical and visual form of the earth as an environment and as a setting in which locales occur . . . The *appearance* of a landscape is something which is substantial and capable of being described in terms of relief, topography, the flows of contours and rivers, coasts, rocks and soils and so on. It is most usually clearly defined features such as bays or inlets on a coastline or high points, or humanly created places such as monuments or settlements. Humanly created locales . . . draw on *qualities* of landscape to create part of their significance for those who use them, and the perception of the landscape itself may be fundamentally affected by the very situatedness of these locales. [emphasis in original] ⁷¹

The visual aspect of this careful and nuanced definition will be the second important factor for us when we come to consider how to assess the the geographical critique of Walter Leaf and J. V. Luce, and especially the latter which in addition to a verification account of Homeric geography gives a photographic narrative.

Tilley disambiguates two of the key terms, ‘landscape’ and ‘place’:

⁶⁹ Tilley, *Phenomenology of landscape*, pp12, 14–15.

⁷⁰ Tilley, *Phenomenology of landscape*, p24.

⁷¹ Tilley, *Phenomenology of landscape*, pp25–26.

‘A landscape is a series of named locales, a set of relational places linked by paths, movements and narratives. . . . A concept of place privileges difference and singularity; a concept of landscape is more holistic, acting so as to encompass rather than exclude.’ [my emphasis]⁷²

In *A phenomenology of Landscape* Tilley sets up the types of observations which may be recoverable / reproducible even for an ancient landscape. He sets out to discover in what way the landscape has been shaped and therefore what values it reflects by walking the Dorset cursus himself.

In addition to the affective values described by Tilley, there are some aspects of a large-scale environment, in some circumstances, which form simple recognisability criteria.

1.1.1 Recognisability Profile

One recognisability criterion is distant mountain / ridge profiles, if they happen to be distinctive (but note that a profile may be recognisable by an individual but not particularly nameable, in which case it does not have the relevant recognisability, the nameability, that we are looking for). The sawtooth profile of Sphacteria is particularly recognisable, and nameable (figure 1.1). Another recognisability quality a distant view may have is supplied by the fact that, except in complete darkness, a set of receding profiles will be distinguishable each from the other (and orderable) from the different amounts of light they reflect.



Fig. 1.1 Sawtooth profile of Sphacteria seen from Pylos

⁷² Tilley, *Phenomenology of landscape*, p34.

Shape

Another form of recognisability is the extremely distinctive shape of at least some islands which is apprehensible if there is a look-out point. It is possible to see, for example, even from the modest height of Mt Kynthos on Delos the whole shape of Rheneia to its west and north (figure 1.2 cuts off the south-west part).



Fig. 1.2 Sprawling Rheneia seen from Delos

Although one can see even from sea level the landform of Rheneia, it is not at all clear how extensive it is or whether it is separate from Delos. Arrived at what turns out to be Aiaia, home of Circe, Odysseus climbs to a lookout place to get his bearings:

ὦ φίλοι, οὐ γάρ τ' ἴδμεν, ὅπη ζόφος οὐδ' ὅπη ἠώς, 190
 οὐδ' ὅπη ἥλιος φασίμβροτος εἶσ' ὑπὸ γαῖαν,
 οὐδ' ὅπη ἀννεῖται·

...

εἶδον γὰρ σκοπιὴν ἐς παιπαλόεσσαν ἀνελθῶν
 νῆσον, τὴν πέρι πόντος ἀπείριτος ἐστεφάνωται· 195
 αὐτὴ δὲ χθαμαλὴ κεῖται·

Od. 10.190ff

My Friends, we do not know where the west wind is nor where the
 dawn, nor where under the earth the mortal light-giving sun will go,
 nor where it will rise

...

For I went up to a rocky lookout and saw
 the island, around which endless open sea is ringed;
 it itself lies low

We notice here only two negative points of geographical description: (1) Odysseus could have distinguished the shape of the island but does not give it; and (2) if on approach to the island he observed a distinctive profile he does not give it.

Colour

We noticed above that the closeness of some islands with ‘indented’ coastlines means that at sea level distinct islands may not be recognisable as such. There is however one characteristic which comes into play at distances of a kilometre or two. Distant profiles can be separated from each other by colour: a phenomenon which becomes clear if one watches from the starboard side of a ship sailing up the Thermaic gulf: the three horizons of the Kassandra, Sithonia and Athos peninsulas - ranged in height lowest to highest when seen from the west (successively, 307m, 817m and 2030m at their highest point) – are stacked one behind the other. The same impression is got if one is looking at the indented west coast of Ithake from Kephallonia: distant ranges appear a paler and fuzzier blue than those closer to hand.

1.2 Naïve Geography

The terminology developed under the rubric ‘naïve geography’ proposed by Max Egenhofer and David Mark may also bring us closer to a method of landscape description which combines the awareness of place demanded by Tilley with simply recognisability criteria.⁷³ Egenhofer and Mark were led to the proposal by considerations which relate to a dissonance between our everyday or practical thinking about space and our tutored or expert knowledge of space. It is proposed as a way of capturing common sense geographical knowledge.⁷⁴ The theory of naïve geography proposes that ‘the common-sense geographic world’ exists alongside expert knowledge and can be formally modelled on its own terms.⁷⁵ The characteristics modelled in the theory are the types of ‘error’ or transformation which human beings habitually make; for example, in wayfinding and navigation, that directions are usually rectified to North-South or East-West; a conceptualisation

⁷³ Max Egenhofer & David Mark, ‘Naïve Geography’ in *Spatial Information Theory*, Lecture Notes in Computer Science No. 988, edited by A. U. Frank and W. Kuhn, Berlin, Springer, 1995, pp1–15. Their proposal is based on ‘naïve physics’ which is concerned with describing the effect of common sense notions on our perceptions of objects and space; see Barry Smith & Roberto Casati, ‘Naïve physics’, *Philosophical Psychology*, 2/7 (1994): 225–244, also online at <http://ontology.buffalo.edu/smith/articles/naivephysics.html>.

⁷⁴ The idea floated by Egenhofer and Mark has now been taken up by Klaus Geus and Martin in the guise of ‘common sense geography’ and applied to ancient texts. (Klaus Geus & Martin Thiering, eds., *Features of common sense geography: Implicit knowledge structures in ancient geographical texts*, Lit, Zurich, 2014).

⁷⁵ Egenhofer & Mark, ‘Naïve geography’, p1.

of the earth as flat as a practical schema (independent of the separately-held conviction that it is theoretically and observationally established as spheroidal); and a tendency to give primacy to topological over metric knowledge. The Naïve Geography rubric calls for a model of knowledge which unites these principles so that we need not think of the alignment tendency, and other practical modes, as ‘errors’, but rather as part of human spatial ability.⁷⁶

The importance of qualitative reasoning—defined as reasoning with variables which ‘can only take a small, predetermined number of values’—is emphasised by Egenhofer and Mark. Qualitative reasoning is effective even in problems involving measure. It is ‘exact’ in its results and is therefore appropriate in situations where there is only partial knowledge.⁷⁷

All fourteen principles, or differentiating characteristics, of naïve geography listed by the authors in their exploratory exposition may well be illuminating if tested against the *Odyssey* and the *Histories*; three in particular stand out as applicable:⁷⁸

- Topology Matters, Metric Refines
- Geographic Space and Time are Tightly coupled
- People Use Multiple Conceptualisations of Geographic Space

1.3 Identifying landscapes

I now turn to more detailed discussion of the studies of two leading twentieth-century exponents of the Homeric question in its geographic form. Autopsy and personal investigation to identify past and present landscapes, as practised by Walter Leaf and JV Luce, is a strand of classical scholarship which, by virtue of the knowledge and thoroughness of its practitioners and the persistence of its effects, cannot be ignored. The specifically geographic use of the *Iliad* and the *Odyssey* is a part of the larger Homeric question which deals with the locating of the composition

⁷⁶ The authors are looking for a solution which formalises the relevant ‘user’ knowledge for GISystems, but unlike large business systems, which paradigmatically remove redundancy and error, a GISystem, they say, should incorporate it in order to be better aligned with people’s actual spontaneous geographic thinking. For a critique of Naïve Geography as an appropriate model for the user interface of GISystems see Alan Glennon, ‘Comments on Naïve Geography, Part 2’, online at: <http://geography2.blogspot.com/2006/06/comments-on-naive-geography-part-2.html>.

⁷⁷ Egenhofer & Mark, ‘Naïve Geography’, p2.

⁷⁸ The fourteen characteristics are listed in Egenhofer & Mark, ‘Naïve Geography’, pp7–11.

of the poems in an historical period and the relationship of their content (which is archaizing) to their period of composition.⁷⁹

The work of Leaf and Luce is principally concerned with establishing identifications of place, which makes it apparently fundamentally different from that of a modern geographer such as Evans setting out to describe a place and a people. The task for Leaf and Luce is twofold: to abstract a terrain description and to make a persuasive case that that description is a description of a particular place. Such a task gives rise to two antecedent questions which require answers: a) whether it is a necessary condition that Homer and Herodotus intended to describe a particular place; and b) if it is within the capacity even of Homer or Herodotus to describe a place in the large so that it would incontrovertibly be recognizable by another person who had not been there. A subsequent question is what criteria are scholars such as these using when they discuss Homeric descriptions of place.

1.4 Autopsy by Leaf

Walter Leaf's explorations of the Troad in the early twentieth century took place in the context of a relatively recent resolution of an old problem of the precise location and nature of Troy. The uncovering of the mound at Hissarlik by Heinrich Schliemann during extensive excavations in the 1870s and again in 1890 and the subsequent more careful excavation of Dörpfeld were certain results against a background of the previous 100 years during which none of several sites canvassed was particularly favoured.⁸⁰ In making his study Walter Leaf does not refer (overtly at least) to mainstream geographical literature or methods. Leaf was always what today would be called an independent scholar, with a family and professional background in banking. He had a 'keen geographical and topographical sensitivity ... which ... led him always to combine scholarship with a sense of physical reality. It was vital for him to know that there actually had been a Troy and a Trojan war.'⁸¹

⁷⁹ A similar 'Herodotean question' can also be raised about the status of Herodotus' extensive descriptive material on Egypt in the *Histories*, since we possess no absolutely reliable external evidence for his own prior sources of evidence or the extent of his own investigations.

⁸⁰ Joachim Latacz, *Troy and Homer: Towards a solution of an old mystery*, Oxford University Press, Oxford, 2001 gives a convenient succinct summary of Schliemann's Troy excavations and results on pp5–12.

⁸¹ William C. Lubenow, 'Leaf, Walter (1852–1927)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [<http://www.oxforddnb.com/view/article/34454>, accessed 6 Nov 2007]; a useful supplement to the ODNB is the information on the Royal Bank of Scotland site, <http://heritagearchives.rbs.com/people/list/walter-leaf.html> [accessed 13/2/2014]

Leaf felt in fact that he had discovered a geographic reality, and made this explicit in Troy:

locality plays a large part in the *Iliad*, the whole scene is so constantly taken for granted as a thing known, that this negative consideration ... seems to me of the greatest weight and to attest not so much the autopsy of a particular poet as the reality of the material on which he is working.../ I can feel no doubt that the *Iliad* is based on a very solid foundation of historical fact⁸²

Troy: A study in Homeric geography is a major work on the representation in the *Iliad* of the topography of Troy and the Troad in which Leaf discusses the topography and geography at both large and small scales. He is explicit about the purpose and the main result to be presented:

that the landscape of the *Iliad* is really the landscape of Hissarlik and that the descriptions of Homer are drawn from the knowledge of eye-witnesses.⁸³

The validity of this result has been disputed principally by RM Cook on the basis of his own survey of the Troad, conducted over a ten year period.⁸⁴ In rejecting any topographical accuracy in Homer for features in the Trojan plain (not the citadel which both he and Leaf treat separately), Cook remarks that

it is only at Troy itself that the archaeologist can make contact with the historical event of the Trojan War.⁸⁵

The opening statement of his chapter 4 'Trojan Plateau and Skamander Plain' is a very careful summary of the question of topographical accuracy of Homer with respect to the plain (not the city).⁸⁶ Cook's main point is that even careful and

⁸² Leaf, *Troy: A study in Homeric geography*, New York, 1971, p13.

⁸³ Leaf, *Troy*, p8.

⁸⁴ J.M. Cook, *The Troad: An archaeological and topographical study*. OUP 1973. Cook describes the extent and period of his field studies on pp4-9.

⁸⁵ Cook, *Troad*, p91.

⁸⁶ Cook, *Troad*, pp91-92.

learned scholars (Leaf has ‘sturdy common sense’⁸⁷) cannot agree on a solution if there is no single true one. Rather than enter into that dispute I want to get behind Leaf’s contention by examining the type of argument he employs.⁸⁸ Leaf himself touches the problem in the sentence directly following that just quoted:

That the poet who wrote any particular passage had been himself a visitor to the scene of his poem is indeed a matter not easy to establish.⁸⁹

His approach is to subject every topographical reference in the *Iliad* – many of course mentioned more than once – to a check for self-consistency. If those references are entirely – or almost entirely – self-consistent he proposes that we must conclude that Homer was writing about an actual place. The modelling platform, so to speak, which Leaf used for his consistency test – the test ground – was his own observation of the Troad.

Pages 162–169 of Leaf’s *Troy* are devoted to the scene of Achilles’ pursuit of Hector in Book 22 – because it ‘approaches nearest to a detailed topographical description in the *Iliad*’. After orienting the reader to the actual environs via two photographs and a contoured plan, Leaf notes the landmarks so that ‘with these data in our minds, it is possible to follow every step of the story.’⁹⁰

Hector only remains outside, “in front of Ilios and the Skaian Gate” (xxii.6). We have already learnt to know the spot where he is standing: it is on the little plateau just outside the walls where, as Andromache has told us, there stood a wild fig-tree. We have already seen that this was the weak point of the fortress. It was, no doubt, always occupied by sentinels: the drop beneath it is now sufficiently rapid to hide the plain immediately at its base, and it was essential here to guard against

⁸⁷ Cook, *Troad*, p92.

⁸⁸ I have not been to the Troad myself and therefore have no observational data to add; even so, there may be another interesting approach, albeit delicate methodologically (and not attempted in this thesis), which might reconcile the arguments of Leaf and Cook: to reexamine Leaf’s observational data and compare them with more recent archaeological reports: that is, a statement-by-statement testing, taking into account viewpoint and perspective (see Part II of this thesis for effect of perspective on spatial descriptions).

⁸⁹ Leaf, *Troy*, pp8–9.

⁹⁰ Leaf, *Troy*, pp162, 167.

surprise. Hence either the plateau itself, or a guard-house upon it, is called Skopie, “the look-out” (xxii.145)’

Leaf, *Troy*, p164

He does not state explicitly that Hector and Achilles run anticlockwise around the wall, though we deduce it from his plan and description (and this corresponds to my own, ’til then unexamined, inference), rather, he translates Homer’s words at *Iliad* xxii.145-156:⁹¹

ὡς ἄρ’ ὁ γ’ ἐμμεμαῶς ἰθὺς πέτετο, τρέσε δ’ Ἐκτωρ	143
τεῖχος ὑπο Τρώων, λαιψηρὰ δὲ γούνατ’ ἐνώμα.	
οἱ δὲ παρὰ σκοπιὴν καὶ ἐρινεὸν ἠγεμόεντα	145
τείχεος αἰὲν ὑπ’ ἐκ κατ’ ἀμαξιτὸν ἐσσεύοντο,	
κρουνῶ δ’ ἴκανον καλλιρρόω· ἔνθα δὲ πηγαὶ	
δοιαὶ ἀναΐσσουσι Σκαμάνδρου δινήεντος.	
ἦ μὲν γάρ θ’ ὕδατι λιαρῶ ῥέει, ἀμφὶ δὲ καπνὸς	
γίγνεται ἐξ αὐτῆς ὡς εἰ πυρὸς αἰθομένοιο·	150
ἦ δ’ ἐτέρη θέρεϊ προρέει εἴκυῖα χαλάζῃ,	
ἦ χιόνι ψυχρῇ ἢ ἐξ ὕδατος κρυστάλλω.	
ἔνθα δ’ ἐπ’ αὐτῶν πλυνοὶ εὐρέες ἐγγὺς ἔασι	
καλοὶ λαΐνεοι, ὅθι εἴματα σιγαλόεντα	
πλύνεσκον Τρώων ἄλοχοι καλαί τε θύγατρες	155
τὸ πρὶν ἐπ’ εἰρήνης πρὶν ἔλθειν νῆας Ἀχαιῶν.	

Past the outlook (Skopie) and the wind-waved fig-tree sped they ever on
away from under the wall, along the wagon-track and came to the two
fair-flowing fountains, where rise the two springs of eddying
Scamander. . . . And there beside the springs are broad washing troughs
hard by, fair troughs of stone, where wives and fair daughters of Troy

⁹¹ Leaf, *Troy*, p165: ‘A runner, starting from the edge of the plateau, and keeping as near as possible on a level, would reach this wagon-track at a point just sixty yards north of a spring.’ The plateau and spring shown on the plan, figure 8 on p154, of Leaf, *Troy*.

were wont to wash bright raiment, in the old time of peace, before the sons of the Achaians came (Translation by Leaf, *Troy: A Study in Homeric Geography*, p68)

By these aids and his own deep knowledge of the poems, Leaf persuades us; we, his readers, have a charmed impression once again of the scene of the *Iliad*, and if it adds to, or differs from, the substratum of our own impression we might not be aware of it. Leaf has explored Troy and the Troad, provides photographs, and adds these to his own knowledge of the text.

With map in front of us, or a knowledge from walking around the site ourselves, we can be sure that κατ' ἀμαξιτὸν (line 146) refers to the wagon-track south of the city, that the Skaian Gate was on its west, and therefore that Hector must have turned to his left to go anti-clockwise around the wall. But what deduction did Homer's audience, most of whom had no such aids (it seems reasonable to presume), make? Leaf implies that Hector 'turned' ('But at the last moment his heart fails and he turns to run' [pp167-8]) but Homer says only that Hector 'ran' (22.143 τρέσε δ' Ἐκτωρ). In English it is perfectly natural in recreating the scene to say 'turns to run' - indeed almost impossible not to. The scene is one in which Hector is at the wall, outside it, waiting for Achilles to come up:

Ἐκτορα δ' αὐτοῦ μείναι ὄλοιη μοῖρα πέδησεν

Ἰλίου προπάρσιθε πυλάων τε Σκαιάων.

Il. 22.5-6

And when he runs, he runs under (that is, close by) the wall (τείχος ὑπο Τρώων, 144; τεῖχος αἰὲν ὑπ', 146): even if we wanted to argue that Hector could be facing the direction of Achilles' coming with the wall at his side rather than his back (perhaps Achilles is approaching tangentially to the wall), 'in front of Ilios and the Skaian Gates' would settle the question on the side of the most natural interpretation of a stance with the wall at his back. Therefore it is most natural to envisage a turn when he decides to run; and in English when describing such a situation it is all but mandatory to recognise this by saying 'he turned to run' as Leaf does in fact say in giving his recreation of the scene. The phrased translation by Leaf, given above, starts with line 145 when the environment is mentioned. It is not a translation which

is unfaithful but he is describing what is now in his mind and the English expression reflects that. At the time this work was being written Leaf had, one might surmise, the whole of the *Iliad* by heart.⁹² There may not be enough evidence to establish exact dispositions in space for these incidents at this scale, and there is further difficulty in taking Leaf's analysis seriously precisely because it involves an emotionally highly charged scene. At the end of his discussion of this passage, Leaf again makes clear his thinking:

One thing at least has passed for me beyond all doubt: that the poet who wrote those lines either knew the scene himself, or was following in careful detail a predecessor who had put into living words a tradition founded on real fighting in this very place.⁹³

His language ('real fighting in this very place') show his own emotional engagement. It would be a mistake however to dismiss his results as invalid on these grounds.⁹⁴ Rather than jump to a conclusion that perhaps Leaf found true what he wanted to be true one should continue to examine the 'evidence and models'⁹⁵ on which he bases his conclusions.

A recent study by Jenny Strauss Clay has shown that disposition of characters has been portrayed consistently in the central part of the poem, that is, across no fewer than several thousand verses of the 'battle books' (books 12-17).⁹⁶ As we have seen,

⁹² He had begun work on an edition of the text in 1875 which came out in 1886-88, after a translation, first published in 1882. See the entry by William Lubenow in the *Oxford Dictionary of National Biography* (accessed online at <http://www.oxforddnb.com/view/article/34454> on 2/8/2011) and Andrew Lang, Walter Leaf & Ernest Myers, *The Iliad of Homer done into English*, London, 1958, pv.

⁹³ Leaf, *Troy*, p169.

⁹⁴ 'Leaf had a clear head and a fine gift of exposition. He could see the essentials of a problem and marshal the evidence effectively; and so he is always worth reading. But he did not have an archaeological training; his investigation of sites was cursory, and he did not realise how inadequate the exploration of the Troad was. So he tended to see the problem as simpler than they in fact were, and he was too inclined to present his assumptions as topographical facts.' (J. M. Cook, *The Troad: an archaeological and topographical study*, London, Oxford University Press, 1973, p42). Nevertheless Cook constantly tests his own observations against Leaf's).

⁹⁵ The title of an extended essay on historiography of ancient Greece and Rome and the need to develop a model against which to test any conclusion about the ancient world given the extreme sketchiness of all kinds of sources, including for example 'statistics' (pp27-46): M. I. Finley, *Ancient history: Evidence and models*, London, 1985.

⁹⁶ Jenny Strauss Clay, *Homer's Trojan Theatre*, Cambridge University Press, Cambridge, 2011; books 12-17 of the *Iliad* have 4204 verses in the OCT text; Clay's argument is discussed further in Part II of this thesis.

Leaf emphasises the eye-witness nature of the conclusions he is drawing about the *Iliad*, and his own autopsy credentials. But he had read the poem first: when ‘a study in Homeric geography’ was published he had spent more than 30 years reading the poem.⁹⁷

It will be easier to see what Leaf’s method was if we retreat from κορυθαίολος Ἑκτωρ⁹⁸ and concentrate on rocks and trees – the wider scene which in any case makes up the greater part of Leaf’s study. His model, clearly enough stated, has two points: a) that all the large-scale geographic indications concerning the Troad form a consistent set (with a few exceptions to be discussed); and b) that such consistency could only have been achieved by an eye-witness. The evidence adduced for (a) is presented in Leaf’s chapters 2, 4 and 5 in which he assembles and discusses the references in the *Iliad* which could be interpreted as references to landmarks of one kind or another in the Troad and surrounds. The evidence he presents for (b) is none. I will argue that Leaf was before his time and could not have presented any evidence, so that this part of his model was bound to remain, as it did remain, only an hypothesis. I discuss here part (a) of his claim, that all the topographic references for the plain on which the action takes place form a consistent whole; discussion of part (b), that we must conclude an account from autopsy by Homer, is postponed to Part III Cognition.

The consistency of the whole is placed alongside the virtual – the almost complete – absence of anything one might consider topographic or geographic or landscape description:

‘Full though the *Iliad* is of local colour we have nowhere else any set description of any of the natural features of the plain. Everything is taken as known and enters only by way of allusion; we are expected to recognise at once the place and significance of the ford, the tomb of Ilos,

⁹⁷ In an addendum to the Preface to *Troy* dated July 1912 the author records the death of Andrew Lang his collaborator on the translation and consultant for his editions implying a continuous collaboration. Leaf’s first publication on the *Iliad* was a joint commentary with J. H. Pratt published in 1880, *The story of Achilles from Homer's Iliad*, London.

⁹⁸ Hektor, the chief hero of the Trojans, is first given his chief epithet ‘of the gleaming helmet’ at *Iliad* 2.816 when the poet begins the description of the Trojan forces, (the ‘Trojan Catalogue’ 2.816–877).

the Simois and all the rest. Yet so abundant are the materials that it is still possible to do so.⁹⁹

Leaf discusses the features of the plain on pages 24–52, and Homer’s handling of them on pages 145–169. The features are those known to every student of the *Iliad*’s topography:

walls of Troy
 Skaean gate
 washing pools
 wall built by the Greeks
 oak tree
 fig tree
 ford
 tomb of Ilos
 Skamander / Xanthos river
 Simoeis river

These are shown on the sketch map ‘The plain of Troy according to the *Iliad*’.¹⁰⁰ These features are constantly named by Homer and occur multiple times. Leaf is concerned not only with the features themselves – as he notes, mostly devoid of elaboration – but with whether and how their mention works within the narrative, for example the dry river beds which the racing chariots must get over. His conclusions are that all but one – the ford – can be identified with an actual feature of the plain or a feature highly likely to have existed.

The *Iliad* also shows knowledge of the wider area of the Troad and beyond, both east and west. Leaf discusses the geographical knowledge displayed in the Trojan Catalogue [2.816ff] in two long chapters, 5 and 6, declaring that ‘it will be my aim to bring the statements of Homer into relation with geographical facts and to see what reliance can be placed on the *Iliad* as the earliest geographical document.’¹⁰¹ He divides the Trojan Catalogue into two parts: lines 2.816–843 dealing with the

⁹⁹ Leaf, *Troy*, p49.

¹⁰⁰ See Chapter 5 in Part II of this thesis for a discussion of a different schematic way of mapping these features offered by Agathe Thornton.

¹⁰¹ Leaf, *Troy*, p178.

Troad proper and lines 2.844–2.877 with the Trojan allies and their origins. Leaf interprets this latter part as representing four trade routes converging on Troy.

1.5 Autopsy by J. V. Luce

Another leading exponent of ‘real landscape’ interpretation of the *Iliad* and the *Odyssey* was J. V. Luce whose *Celebrating Homer’s landscapes* is the fruit of personal investigation of the Troad and Ithake in particular. Luce states clearly his confidence in the ‘well-judged essence’ of Homer’s description of Ithake:

I judge the whole passage to be a nuanced and pithy account by an eyewitness, and I venture to suggest that its authenticity is best attested not by studying maps but by paying a visit to one of the most enchanting islands in Greece.¹⁰²

Celebrating Homer’s landscapes uses photographs and maps as well as text to convey a sense of the views and profiles which it argues are associated with the poems. Luce’s own map of Ithake (map 9 on p177) even with its three basic contours show how likely it is that there are crags, inlets, heights and lines of sight which even when they appear to show a wide vista obscure abrupt topographic features. Even for a Greek island Ithake is complex in profile. As it lies only two miles from Kephallonia across the Ithake channel and in the other direction Leukas and the mainland are visible from various points as a shifting background an almost infinite number of scenic views, if one may call them that, must be available. Luce gives more photographs than maps because he is interested in recognisability of terrain. His figure 6.2 (p168) is a wonderful photograph of the narrow central isthmus of Ithake taken from the summit of Aetos looking north, and it is captioned with Homer’s epithets for Ithake: “clear-seen island” and “not broad”. The analysis of εὐδείελος used of Ithake (9.21) is persuasive and shows that the neologism ‘clear-seen’ is the best one can do in English. Luce points out that the other use at 13.234-5:

ἦ πού τις νήσων εὐδείελος, ἦέ τις ἀκτῆ
κεῖθ’ ἀλλὶ κεκλιμένη ἐριβόλακος ἠπειροῖο;

¹⁰² Luce, *Homer’s landscapes*, p184.

in fact offers what is virtually a contrastive definition of the word, noting that εὐδείελος

describes the essential nature of Ithake as a distinctly apprehended island with clear water all around it. It can be seen to be such when one approaches it by sea and particularly when one surveys it from higher ground within it.¹⁰³

However he vitiates his point a little by the next statement:

Εὐδείελος then expresses much the same truth about Ithaca as another of the island's stock epithets, ἀμφιάλος, meaning "sea-girt"¹⁰⁴

εὐδείελος and ἀμφιάλος do not have exactly same meaning but rather express two different modes of obtaining information and two different sets of facts. εὐδείελος expresses the idea of being distinguishable as an island on approach (or passing) and from within, which is a matter of (variable) point of view; ἀμφιάλος only expresses the analytical half of this truth.¹⁰⁵ The quality of being completely separate from mainland is not unimportant in this region where the silt-laden Achelous is joining islands to the mainland. This was a fact well-known to Herodotus who mentions it at 2.10.3:

εἰσὶ δὲ καὶ ἄλλοι ποταμοί, οὐ κατὰ τὸν Νεῖλον ἔοντες μεγάθρα, οἵτινες ἔργα ἀποδεξάμενοι μεγάλα εἰσὶ τῶν ἐγὼ φράσαι ἔχω οὐνόματα καὶ ἄλλων καὶ οὐκ ἤκιστα Ἀχελώου, ὃς ῥέων δι' Ἀκαρνανίης καὶ ἐξίεις ἐς θάλασσαν τῶν Ἐχινάδων νήσων τὰς ἡμισέας ἤδη ἤπειρον πεποίηκε.

¹⁰³ Luce, *Homer's landscapes*, p167.

¹⁰⁴ Luce, *Homer's landscapes*, p167.

¹⁰⁵ Someone who has circumnavigated Ithake would be in a position to say it was ἀμφιάλος, as Captain Cook determined to do of the North and South islands of New Zealand, in order to prove they were separate islands – this is a mapping imperative. On this see Paul Carter, *The road to Botany Bay: An exploration of landscape and history*, New York, Alfred Knopf, 1988, pp14–15.

and there are other rivers, not being for size comparable with the Nile, which perform large work; I am not going to name the rest of these but not least is the Achelous, which flows through Akarnania and empties into the sea and has now made half the Echinades islands mainland.

Luce's study of Troy and the Troad largely replicates that of Walter Leaf (which he acknowledges as the 'classic' study¹⁰⁶), with one, as he claims, major difference: newer geophysical data which invalidates Leaf's belief in the position of the Greek camp as aligned approximately west-east, to the north of Troy and near the Hellespont.¹⁰⁷ The data suggest that a large part of the present plain may not have existed in the late Bronze Age, being caused by more recent alluviation, and hence that what Luce calls the 'Schliemann-Leaf view' cannot stand.¹⁰⁸

Luce's contention is the same as Leaf's: that the *Iliad* demonstrates detailed personal knowledge of Troy and surrounds by the poet. He develops a 'principle of interlocking detail'¹⁰⁹ which he claims should guide our interpretation of topographic references in the *Iliad*.

Luce also considers line-of-sight facts.¹¹⁰ He discusses the view Poseidon has of Troy from Samothrace which implies a knowledge on the poet's part that although Imbros intervenes "the topmost peak of wooded Samothrace" is visible from Troy (pp22-26). One-off place facts such as this 'Samothrace view' could, as he notes, have been learnt from 'someone who had been there', but Luce's argument, like Walter Leaf's before him, is that, given the likelihood of travel by a professional bard, they are the product of a whole eye and that 'landscape and locality are woven into the texture of the *Iliad* and the *Odyssey*'.¹¹¹ Luce pleads the case for Homeric autopsy not only because Homer 'visualises and describes these locations [the three principle scenes on Ithaca – bay of Phorcys, Eumaeus' hut, the palace] accurately in

¹⁰⁶ Luce, *Homer's landscapes*, p16.

¹⁰⁷ As shown on his map 'The plain of Troy according to the *Iliad*' (Leaf, *Troy*), and reproduced in Luce, *Homer's landscapes* as map 5.

¹⁰⁸ Luce, *Homer's landscapes*, p116.

¹⁰⁹ Luce, *Homer's landscapes*, p33.

¹¹⁰ Such as those Christopher Tilley makes use of to understand the function in ritual for neolithic peoples of the Dorset Cursus which ran through Cranbourne Chase (Tilley, *Phenomenology of landscape*, pp170–201).

¹¹¹ Luce, *Homer's landscapes*, p1.

themselves’ but also because ‘he exhibits a very firm grasp of the spatial relations that bind them into the overall landscape’.¹¹² He challenges the general objection made by some commentators that geographic references in the *Odyssey* must not be or need not be interpreted in any particular scheme. His theory of autopsy by Homer relies on a contention that Homer had opportunities to get, and did get, enough navigational knowledge to ensure that none of his statements was inconsistent with the schema of identification which Luce proposes. So, for example, Luce presents a map to resolve the difficulty of *Od* 4. 842–847 in which the suitors are said to lie in ambush in the twin harbours of the islet of Asteris although Asteris has no pair of harbours. Luce explains this as a slip or anticipation by the poet which is subsequently corrected in Book 16.364 where Antinoos one of the ambushing party says the ambush was sited on the mainland—interpreted as Kephallenia which does have twin harbours. Luce is relying here on an overall mental model of all relevant detail being held by the poet; and this hypothesis means in turn that he must explain every positional and orientation statement as meaningful and consistent when applied to actual land configurations. Luce’s map 10 shows his solution to the problem of Athene’s instructions for the return voyage containing the words ‘keep your well-built ship away from the islands’.¹¹³

ἀλλὰ ἐκάς νήσων ἀπέχθειν εὐεργέα νῆα,
 νυκτὶ δ’ ὁμῶς πλείειν· πέμψει δέ τοι οὔρον ὄπισθεν
 ἀθανάτων ὃς τίς σε φυλάσσει τε ῥύεται τε.
 αὐτὰρ ἐπὶ πρῶτην ἀκτὴν Ἰθάκης ἀφίκηαι,
 νῆα μὲν ἐς πόλιν ὀτρῦναι καὶ πάντας ἐταίρους,
 αὐτὸς δὲ πρῶτιστα συβώτην εἰσαφικέσθαι,

but keep your well-built ship away from the islands,
 and sail only at night; and she will send to you a following wind
 that one of the immortals who guards you and keeps you safe.
 but when you reach the first promontory of Ithake,
 dispatch the ship and all your companions to the town
 and you yourself make your way first to the swineherd,

¹¹² Luce, *Homer’s landscapes*, p229 (both quotes).

¹¹³ See the discussion in Luce, *Homer’s Landscapes*, pp213–218.

1.6 Summary

In *Ideology and landscape* Alan Baker lays down some ideas for a process of identifying historical landscapes: ‘Historical studies of landscapes must be grounded in an analysis of material structures’ at the same time as they ‘acknowledge that landscapes are shaped by mental attitudes and that a proper understanding of landscapes must rest upon the historical recovery of ideologies’ [emphasis added].¹¹⁴ In a later book, *Geography and History*, Baker offers a set of statements about the subject matter of historical geography summarised as the discourse of location, discourse of environment, discourse of landscape and discourse of region, or place.¹¹⁵

The explorations by Walter Leaf and J.V. Luce involve them in a strong hypothesis (some would accuse them of pre-determined conviction) in the form of a prescriptive text before the groundwork—the fieldwork—has even begun. As we saw from their clear opening statements, both had begun with an hypothesis that the texts of the *Iliad* and the *Odyssey* were describing actual places. At the same time, they may be said to meet the other criterion laid down by Baker, that of familiarity with the ideologies expressed in the poems. The autopsy investigations which the classicist-geographers involve themselves in, although they use exactly the same methods of observation as landscape archaeology studies, are certainly asking less obviously open questions.

The method of the classicist-geographers was an integration method. Both Leaf and Luce emphasised the allusive nature of spatial references in the *Iliad* and the *Odyssey* and their task in the studies which I have analysed here was to bring together all the scattered references and allusions and compare them with their own autopsy of the same places. Luce even had a term for this sense of Homeric

¹¹⁴ Alan R. H. Baker, ‘Introduction: On ideology and landscape’ in Alan Baker & Gideon Biger (eds.), *Ideology and landscape in historical perspective: Essays on the meanings of some places in the past*. Cambridge Studies in historical geography, No.18, Cambridge University Press, 1992 (pp2–14), at p3.

¹¹⁵ Summarised in Jonathon Smith, ‘Review of Baker, Geography and history’ at <http://h-net.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=h-histgeog&month=0505&week=d&msg=TVf77g3qgjffZYvpp1wHnw&user=&pw=> (accessed 10/10/2012)

geography: the ‘principle of interlocking detail’.¹¹⁶ Standing back a little one can see that for anyone who has read the poems this is a stimulating, and perhaps satisfying exercise to follow: a closed enquiry with an open verdict as it will always be possible to differ from, say, Leaf in one’s own observation of Homeric landscape.

Walter Leaf was able to make such a substantial case for the seriousness of Homer’s geographical knowledge by understanding the spatial references in the *Iliad* as a totality. This case was not ignored, though frequently controverted, by the rather different fieldwork of J. M. Cook, who also sought to understand them as a totality. This makes it all the more surprising that Leaf’s work is not integrated into the thinking of students of ancient Greek geography. J. O. Thomson, for example, does not refer to Leaf’s *Troy*.¹¹⁷

¹¹⁶ Luce, *Homer’s Landscapes*, p33.

¹¹⁷ Though he does refer to Walter Leaf, Homer and history, London, Macmillan, 1915 to say that Leaf’s ‘trade relations’ claim for Troy and Central Asia is ‘absurd’ (J.O. Thomson, *History of ancient geography*, Cambridge University Press, 1948, p18, n1). Part of the reason for not referring to Leaf’s work of synthesis, at least in Thomson’s case, is that he is writing strictly within a tradition of source criticism, which puts a higher value on ancient texts *qua* texts, so that the preferred comparators are always other texts, even when they are so fragmentary that the tenor of the work cannot possibly be gauged. For the fragmentary nature of other texts see Lionel Pearson, *Early Ionian Historians*, Oxford University Press, 1939, p13.

Chapter 2

Autopsy by Homer and Herodotos

2.1 Text and landscape

There is no body of critique of Herodotos' autopsy precisely equivalent to the activities of Walter Leaf and J. V. Luce for the *Iliad* and the *Odyssey*. But that is not to say that Herodotos has always been regarded as a fount of truth whose statements have never needed to be tested, indeed since his great successor Thucydides there has been a school of detractors whose adherents say that Herodotos tells stories largely for display. W. Kendrick Pritchett summarised the debate in *The liar school of Herodotus*.¹¹⁸ One of the protagonists is O. Kimball Armayor who took a particular interest in Herodotos' statements about Egypt but chose to address the question of Herodotos' autopsy by means of others' evidence.

The brief discussions in chapter 1 of the theory of geographical description (as articulated by Darby) and of the combined sources actually used by E. E. Evans to realise an account of a 'natural unit', and of an economic / historical geography, were intended to bring out the idea that the expression of geographic knowledge may take several forms. Autopsy is certainly present in, indeed an essential feature of, the descriptions of place by Evans and Sauer, who both assert a 'soles of the feet' principle. We seem, in the case of the methods of these modern geographers to have a model of geographic description which aims to be objective but in reality is also dependent on personal experience. These geographers observe landscape and create a text. For the classicist-geographers this is reversed and becomes a process of inferring a place from a text. Evans' descriptions, discussed in chapter 1, were constructed from diverse materials; in chapter 2 we saw how Walter Leaf, starting from a presumption of accurate description of the Troad in the *Iliad* was able to identify the plain and surrounding districts from dispersed place facts.

From one point of view Herodotos' accounts of Egypt and of Skythia are already self-consciously areal accounts in the Sauerian sense: Herodotos goes to other countries expecting to find manners and traditions different from the Greek ways he is familiar

¹¹⁸ W. Kendrick Pritchett, *The liar school of Herodotus*, Amsterdam, J. C. Gieben, 1993; O. Kimball Armayor, *Herodotus' autopsy of the Fayoum: Lake Moeris and the labyrinth of Egypt*, Amsterdam, Gieben, 1985.

with. So in the Skythia narration we expect the recognition of natural conditions, power of describing them, and some attempt to relate them to human action. We are quite open as to whether or not the phenomena are accurately or inaccurately observed and whether or not they are different from those a modern geographer might consider significant and choose to describe. The facts of geography are ‘place facts’ in Sauer’s definition.¹¹⁹

2.2 Motivation for autopsy

Immediately after the short proem to the *Histories*, in the opening statement of the narrative we immediately see people placed in space more readily than in time:

Περσέων μὲν νῦν οἱ λόγιοι Φοίνικας αἰτίους φασὶ γενέσθαι τῆς διαφορῆς.
 τούτους γὰρ ἀπὸ τῆς Ἐρυθρῆς καλεομένης θαλάσσης ἀπικομένους ἐπὶ
 τήνδε τὴν θάλασσαν, καὶ οἰκήσαντας τοῦτον τὸν χῶρον τὸν καὶ νῦν
 οἰκέουσι *Hdt.* 1.1

What Persian historians say is that the Phoenicians were the cause of the dispute since it was the Phoenicians who migrated from the sea called the Red Sea to this sea and settled the land which to this day they occupy.

It is not that he does not care about the order of events, it is just that it is very much harder to get information about the time dimension by one’s own unmediated efforts. ‘Geography is everywhere’, in Denis Cosgrove’s wonderful phrase, but to read the sequence of the Pharaohs you had to be able to read Egyptian.¹²⁰ Herodotos could trust his own boots but the priests might be saying anything. This sense of the autodidact is the wider one in which I wish to discuss the idea of autopsy in the *Histories*: that is, as a motivation for Herodotos and a constant motivating force behind the movement of the narrative.

With the phrase ἀπὸ τῆς Ἐρυθρῆς καλεομένης Herodotos states not only that the Phoenicians came from one seaboard to another but he is also calling the reader’s attention to the name of that seaboard as the Red Sea. Apart from the information

¹¹⁹ Sauer, *Land and life*, p321.

¹²⁰ Cosgrove, Denis, ‘Geography is everywhere: Culture and symbolism in human landscapes’ in D. Gregory & R. Welford (eds.), *Horizons in human geography*, Basingstoke, MacMillan, 1989, pp118–135.

offered, the force of this expression is to announce Herodotos' voice as authoritative in geographic matters in particular.¹²¹ The geographic part of the passage gives place of origin and place of destination of the actors (ἀπὸ τῆς Ἐρυθρῆς καλεομένης θαλάσσης . . . ἐπὶ τήνδε τὴν θάλασσαν). Although it is embedded in 'Persian historians say ...' it is independent of this by the act of naming and by a deictic:¹²² 'to this sea' (the Mediterranean cannot be 'this sea' to the Persians). The phrase therefore gives a strong sense of a mental centre, though all we can directly infer from it is that the centre is 'not Persia'.

Recent assessments of the nature of of the *Histories* speak less about Herodotos' geographical knowledge per se,¹²³ yet he frequently does offer passages of pure geographical description—of the branches and cities of the Nile delta for example—this is a passage in which Herodotos is just as determined to give a complete specification as he is in the historical causation passages. , an aspect which comes out most clearly where they are so convoluted as to seem almost parodies of history, as in the account of Demodoces in Book 3.132. 'Geography is everywhere' so geographical knowledge has usually been seen as less problematic and more easily assessable than ethnographic and historical knowledge, though J. O. Thomson whose *History of ancient geography* is still the most recent general treatment in English is not sanguine about our knowledge of Herodotos' knowledge:

Somehow the ancient contribution to geography, as regards both theory and practical discovery, is seldom studied intelligently and as a whole. Very few [modern scholars] seem to understand just how good and how bad it was, on the sum total of the evidence.¹²⁴

¹²¹ Perhaps set against the poetry especially of Homer: 'in archaic Greece, what's authoritative, what matters, is performed and recorded in verse.' Simon Goldhill, *The Invention of Prose*, p1 [author's italics] and analysis of the proem on pp11-13. Herodotos is also competing with Hekataios: on the notion of competition in the fifth century to make accounts of Greece see Robert Fowler, 'Herodotos and his Prose predecessors' in Carolyn Dewald & John Marincola (eds.), *Cambridge companion to Herodotos*, Cambridge University Press, 2006, pp29–45.

¹²² A deictic is a word whose only semantic content is indication of position or time relative to a speaker.

¹²³ Less than, for example, 'history and ethnography' which is the rubric for a group of eight essays in a 2002 collection (*Brill's Companion to Herodotos* (eds. E. Bakker, I. de Jong and H. van Wees, Leiden, Brill); in a 2008 collection Tim Rood's essay uses the word 'geography' 4 times and 'ethnography' 12 times, i.e. 'ethnography' still has the edge ('Herodotos and foreign lands' in Dewald & Marincola, *Herodotos*, pp290–305).

¹²⁴ J. Oliver Thomson, *History of ancient geography*, Cambridge University Press, 1948, p1.

Thomson devotes much space to Herodotos' knowledge (much of chapter 2 'the Greek horizon to Herodotus' = pages 44–93 either takes Herodotus as a source or is a discussion of Herodotus) in a style curiously syncopated with equally terse notes: a style suited to characterising Herodotos' point facts within a network of other writers' point facts. The *Histories* of course, unlike the Homeric poems where geographic knowledge is extremely difficult to assess or grasp, have always been acknowledged to have important geographical information. We may take A. B. Lloyd's statement at the beginning of his separate commentary on *Histories* Book 2 as representative:

We are . . . presented with a response to and a description of what was actually there in the Fifth Century. Native Egyptian texts and representations, on the other hand, though frequently voluminous, are characterised by a degree of stereotyped obsolescence which often makes them very dangerous evidence indeed for the reconstruction of contemporary Egyptian life.¹²⁵

Lloyd's commentary combines literary with extrinsic data and, in keeping with Book 2 of the *Histories* as a geographical document, does not hesitate to point out where Herodotos' topographic and geographic details are wrong.

The operations of Leaf and Luce discussed in chapter 1 seem to exist in a closed paradigm, if what is aimed at is a specification or determinate description, and a landscape which someone else can recognise. Possibilities for Sauerian forms within distant vistas are multiple. I asserted from my own observation that with a distant vista before one a number of different 'forms' in the Sauerian sense¹²⁶ are likely to be presented to one's mind—most obviously from an eminence—and it is easy to choose to describe just one of these different forms. One can describe peaks visible against a skyline from a particular vantage point, and a saddle may join individual peaks; or one may look down into a valley and notice how a river bends itself around minor hills or where it is bridged. Thinking in terms of Herodotos' field of operations, to a passenger on a Nile boat today, who may arrive in Egypt with a mental image of a river running through desert, albeit a substantial one, the steep rise in land beside the Nile, which now runs for much of its course at a level below sea level, comes as a

¹²⁵ A. B. Lloyd, *Herodotus Book II Commentary*, 3 vols., Leiden, Brill, 1975–1988, vol. 1, p. ix.

¹²⁶ See the discussion of Sauerian forms in section 1.1 above.

surprise. They give a closed-in feeling at odds with one's expectation of a river in a flat land where the eye is led to two distant horizons. Herodotos may have had exactly the same experience: if he went to Egypt knowing only the main topographic features—the Nile and the desert—which were probably universally known, he may have been as surprised as a modern traveller who goes to Egypt as a tourist with minimal knowledge to see distant horizons: the mountains therefore present themselves as barriers which beg to be described. The mountains are not presented as θώματα explicitly (as for example the gold-dust washed down by the Tmolus river in Lydia is at 1.93.1) or, I think, implicitly, though Lloyd notes that other geographic features in Egypt can be so described by Herodotos.¹²⁷

There is a combination of time and space references in Herodotos' account of Egypt. In its most obvious form Herodotos is happy to say that Heliopolis to Thebes is a nine days' up-sailing [2.9.1]. In fact in this passage Herodotos explicitly gives equivalents for journey time and journey length, take your pick he says:

ἀπὸ δὲ Ἡλίου πόλιος ἐς Θήβας ἐστὶ ἀνάπλοος ἑννέα ἡμερέων, στάδιοι δὲ τῆς ὁδοῦ ἑξήκοντα καὶ ὀκτακόσιοι καὶ τετρακισχίλιοι, σχοίνων ἑνὸς καὶ ὀγδώκοντα ἑόντων.

From Heliopolis to Thebes is a nine days' sail upstream; and in stades the journey is 4860, which is 81 schoinoi. *Hdt.* 2.9.1

Where did these distance statistics come from? In this passage there is the implication only that Herodotos himself made the journey, though elsewhere there is the explicit claim;¹²⁸ there is no explicit claim for the other piece of knowledge – that nine days' sail is 4860 stades. Is this an equivalence for Nile sailing only (interpreting τῆς ὁδοῦ as 'the journey' rather than 'the road') or a general statement? If he had said only that 'it is [was] nine days' sailing' the statement would be incontrovertible (subject to the caveat of slips of memory or errors in transmission). By adding the equivalence information Herodotos leaves himself open—apparently intentionally—to criticism. As Marek Węcowski explains in a wonderful analysis of the prologue he is aiming for

¹²⁷ Alan Lloyd, 'Book II' in David Asheri, Alan Lloyd & Aldo Corcella, *A Commentary on Herodotus: Books I–IV*, Oxford University Press, 2007, p235.

¹²⁸ David Asheri, A.B.Lloyd & Aldo Corcella, *A commentary on Herodotus: Books I–IV*, Oxford University Press, 2007.

the status of πολυμαθῆ – or rather, he is a ‘fox’, an empirical researcher and organiser of a comprehensive account.¹²⁹ As a collector and integrator of facts: in order to have something to integrate he must have more than one fact. Equivalent measures may not appear to be perfectly distinct facts in the modern world but Herodotos knows that schoinoi represent not only the measure for large distances in Egypt, but an Egyptian point of view—at least the point of view of a Greek resident in Egypt as σχοῖνος is a Greek word.¹³⁰

Herodotos is also conscious of and curious about geological time. The famous phrase that Egypt is a gift of the Nile is another point where the quality of the observation might indicate whether this is autopsy or not. The ‘gift of the Nile’ is a striking expression forces a reader to invert pre-conceived ideas and the natural observation that a large tract of land contains a river and therefore (we naïvely reason) causes the river. The same sentence contains another proposition: the land thus created by the river has been subsequently acquired by the Egyptians.

ἔστι Αἰγυπτίοισι ἐπίκτητός τε γῆ καὶ δῶρον τοῦ ποταμοῦ

Hdt. 2.5.1

In this passage we must imagine the Egyptians as existing before their land—at least before the part of Egypt which is known as Egypt by the Greeks—the northern alluvial part, the Ionians maintaining that it alone was Egypt (οἱ φασὶ τὸ Δέλτα μόνον εἶναι Αἴγυπτον [2.15.1]). Herodotos is aware of this and immediately states the obvious missing fact:

προϊούσης δὲ τῆς χώρας πολλοὺς μὲν τοὺς ὑπολειπομένους αὐτῶν
γενέσθαι πολλοὺς δὲ τοὺς ὑποκαταβαίνοντας.

and that when the land was extending out many remained where they
were, but many gradually moved down onto it *Hdt. 2.15.3*

That is, stating that Egyptians had progressively migrated north as the delta grew. This set of statements shows Herodotos’ habitual inferential method of observing;

¹²⁹ Marek Węcowski, ‘The hedgehog and the fox: Form and meaning in the prologue of Herodotus’ *JHS* 124 (2004): 143–162.

¹³⁰ W.W. How & J. Wells, *A commentary on Herodotus*, 2 vols, London, Oxford University Press, 1928, on section 2.6.1.

and his wish to state what can be inferred from the observation as well as the observation itself.¹³¹ He often presents, as here, a simple cause and effect connection. This is difficult enough to do for historical events and human affairs, geologic processes are different again because on a geologic timescale one cannot see change happening:¹³² what one can see is the results: shells far inland [2.12.1], soils of different colour [2.12.2–3], other big rivers [2.10] and one can decide that they must have a (discoverable) cause. It is much more exciting to discover a cause for one's self than to read it in the work of some previous writer. The mere knowing about a cause and being able to present it in one's *Histories* does not argue per se for autopsy, a better test is the excitement.

The impulse to enquire into a cause and intellectual energy to invent one is very likely to present in response to the strong stimulus of seeing for oneself. Herodotos need not have been the first Greek to observe and write about the delta formation and the annual flood, and Hekataios' testimony in fact suggests that he was not. The intention of an historical geographer is to connect motives with actions and actions with place; thus the 'interpretation' offered by an historical geographer is verifiable in a way similar to the verifiability of a 'theory' in the natural sciences. But there is a difference in that a single counterexample may be held to disprove a scientific theory whereas a single anomalous piece of experience is unlikely to unseat an historian's interpretation of a complex set of events: 'The scholar is interested in recreating the thought of an action' and hence is engaged in 'critical assessment of evidence relating to an action'.¹³³ So in reading Herodotos one is interested in recreating the thought of the text. Such a task is not possible to do completely but

¹³¹ And, as we have a hint of at the beginning of this rather combative passage on the geology of Egypt [2.15–17] in the words οἱ φᾶσι, which announce 'Ionian' thinkers' opinions, observation, at least in Books 2 and 4, is Herodotos' preferred mode of finding explanations, even though for the most part by the nature of his historical project he must rely on 'words' to perform that task – as Christopher Pelling observes in an essay about his use of speeches as having active, authorially directed explanatory power (Christopher Pelling, 'Speech and narrative in the *Histories*' in Carolyn Dewald & John Marincola (eds.), *The Cambridge Companion to Herodotus*, CUP, 2006 pp103–121, esp., p116: 'Speeches do more than explain events').

¹³² There are some facts of geomorphology which an uninstructed individual can observe as geologic effects and deduce as geologic processes: I recall that when flying in to Phoenix on my first visit to the USA I was surprised at the sight of the perfectly flat-topped 'mountains' which had sharply falling away sides as, if anything, I had expected to see a wide flat plain. The unfamiliarity of these features made me try to work out how they got like that. The answer that they are 'dissected plateaux' (the tops being the original surface of the plain) does follow from the simple observation of unexpected flatness.

¹³³ Leonard Guelke, *Historical understanding in geography: An idealist approach*, Cambridge University Press, 1982, p39.

certain parts or attitudes to certain subjects can be grasped. My task here is to identify the spatial and geographical thinking which lay behind the facts presented.

This statement of historical geography does not provide an opportunity for Herodotos to show off his powers of autopsy, but in any matter of contemporaneous conditions he will usually make a clear claim of autopsy, or explicitly eschew one. An interesting middle case is information about Crophi and Mophi, fabled markers of the sources of the Nile. Herodotos reports the position of these mountains moving south (mentally if not physically). Though he claims to speak from personal knowledge a few sentences later for the region south to Elephantine [2.29], in the case of Crophi and Mophi he has appealed to the testimony of the priest of Athene at Sais in the Delta; the γραμματιστής told him of two mountains, two springs with water issuing in opposite directions which went one north to Egypt and the other south to Ethiopia. [2.28] This is a well-known crux which invites interpretation in two ways – either one thinks that Herodotos is passing on information uncritically or one thinks that he is assessing the value but the qualities of his style remarked on by Mabel Lang,¹³⁴ in which reporting is not distinguished from authorial voice, obscures slightly. Noting that the γραμματιστής might be misinformed (εἰ ἄρα ταῦτα γινόμενα ἔλεγε, 2.28.4) Herodotos goes to the ‘how could it be so’ part of the mystery which he is interested in. He suggests that the perception that the pool is bottomless is explained by assuming whirlpools which would have carried away the sounding line preventing it from reaching the bottom. This is such a satisfyingly rational explanation that it distracts one from the illogicality of Crophi and Mophi themselves. Herodotos says that he went up the Nile as far as Elephantine [2.29], therefore he passed Thebes and Syene. Crophi and Mophi were between Syene and Elephantine [μεταξὺ Συήνης τε πόλιος κείμενα τῆς Θηβαίδος καὶ Ἐλεφαντίνης, 2.28.2] but he does not say he saw them himself nor whether, if he heard the story from the priest before his journey upstream, it motivated him to look. Syene is on the east bank, therefore Crophi and Mophi are; so if Herodotos had wanted to sight them he might have had some expectation of succeeding but he makes no mention of attempt, success or failure. On my reading there are two possible topologies or arrangements.

¹³⁴ Mabel Lang, *Herodotean narrative and discourse*, Cambridge, Mass., Harvard University Press, 1984.

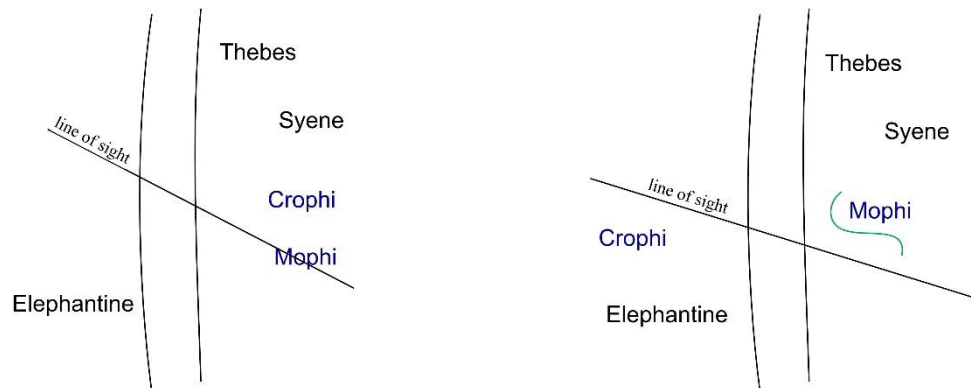


Fig 2.2. Two logically distinct configurations for Crophi and Mophi

There is not enough information, speculative or otherwise, to enable a reader to visualise any hypothesis in the ordinary way, though it was clearly Herodotos' intention to create a logical interpretation and site the mountains correctly however inadequate his information. Why did he not do so? By contrast with this failure to give enough information to visualise relative position and thus perform the relevant spatial task here—to recognize candidate mountains—is the statement at Book 3.30 of an agent of Cambyses instructed to murder Smerdis 'upcountry ... down to sea':

ὁ δὲ ἀναβάς ἐς Σοῦσα ἀπέκτεινε Σμέρδιν, οἳ μὲν λέγουσι ἐπ' ἄγρην
ἐξαγαγόντα, οἳ δὲ ἐς τὴν Ἐρυθρὴν θάλασσαν προαγαγόντα
καταποντῶσαι.

And he going up to Susa killed Smerdis, and some say it was when he
was hunting, others that he took him to the Red Sea and drowned him.

Hdt. 3.30

We do not have external evidence to say whether Herodotos had travelled extensively in this region. David Asheri discusses the problem of direct assertions by Herodotos and briefly summarises the regions we can know from Herodotos' own text that he

had visited, making the distinction between phrases such as ‘in my time X existed’ and ‘I saw / went to visit X’.¹³⁵

On the Crophi and Mophi passage commentators generally have been sceptical. Sayce’s note credits Herodotos with wit to know he was being teased:

But Herodotos seems to have divined that the sacred scribe was only answering the inquisitive stranger according to his own folly
...
every Egyptian knew that the sources of the Nile were not near Syene (Assuan) by hundreds of miles ... Crophi and Mophi may be a reminiscences of the two peaks which overhang the Third Cataract and can be seen from the rock of Abusir at the Second Cataract.¹³⁶

Sayce is a sceptic where Herodotos’ general veracity and trustworthiness are concerned; his notes to the text at this point¹³⁷ show him substituting his own physical description of Egypt where he finds Herodotos inadequate. Larcher similarly seeks a reference to physical phenomena behind Herodotos’ account, acknowledging that ‘our author had previously intimated his disbelief of this whole account;’¹³⁸ he dismisses the account of flowing North and South, like Herodotos, as a joke but still wishes Herodotos’ spatial expression to be logical. To make it so, given that Syene and Elephantine are on opposite sides of the Nile – so that Crophi and Mophi cannot be between them – he supposes Herodotos’ reference to Elephantine is to Philae. [τὸ μεσόν [declinable] = adverbial between] Herodotos uses μεταξύ to describe the location of the mountains which suggests that there is an ‘in between’ space – a static relationship, rather than one observed by Herodotos while travelling which would be the case of configuration 2 (parallel to the Nile). Waddell’s brief note on the passage is the best.

¹³⁵ David Asheri, A.B.Lloyd, Aldo Corcella, *A Commentary on Herodotus: Books I-IV*. Oxford University Press. Oxford. 2007, pp6–7.

¹³⁶ A.H. Sayce, *The Ancient Empires of the East: Herodotos I-III*. With Notes, Introductions and Appendices. London. MacMillan. 1883, p138n5.

¹³⁷ Sayce, *Herodotos I-III*, notes 5 and 6 on page 138.

¹³⁸ Pierre-Henri Larcher, *Larcher’s Notes on Herodotus, new edition with corrections and additions by William Cooley*, Whitaker, London, 1844, p234 (‘Well might Herodotus take it for granted that the retailer of such stories was only joking . . . There is some difficulty in the terms in which Herodotus describes the situation of the two mountains’).

Herodotos may have suspected he was being teased but since that statement (contrasting the informant's claim of exact knowledge with everyone else's complete ignorance) is given as a preliminary to the information on Crophi and Mophi, obtained from the informant, we do not know which particular point made him sceptical. This is his usual pragmatic order: to state the source, with a preliminary opinion, to state the information and to summarise with his own opinion. It is thought that the informant himself was describing a picture the essential features of which were conical mountains (so translated by Marincola) and two streams of water, but that Herodotos did not realise this. He does grasp the Psammetichos detail of a sounding line because Psammetichos' 'spirit of enquiry'¹³⁹ is known to him (Herodotos), as is the use of a sounding line. If Herodotos had been giving a traveller's eye view of landscape he would have said something like 'going south one sees two mountains, which are named . . .' and described the appearance of the whirlpools and speculated on why the water seemed to run in different directions.

2.3 Herodotos' Labyrinth Description

Another passage in Book 2 where the realia being described are in question occurs at 2.148: the so-called labyrinth-Lake Moeris passage. Herodotos spends many words describing a lake and labyrinth and temple on a site which has normally been identified as the Fayoum and his description of it has caused more than one investigation of remains. O. Kimball Armayor has traced the history of discussion of the passage and the archaeological investigations of the site.¹⁴⁰ Armayor argues that rather than reading 2.148 for itself, archaeologists have fitted their supposedly independent data to Herodotos' description of a huge lake and colossus and large complex building:

But if Petrie's confirmation of Herodotus' Labyrinth as a whole is circular, so also is his confirmation of Herodotus' specifics.¹⁴¹

Armayor states the question analytically (as it should be posed) thus:

¹³⁹ W. G. Waddell (ed.), *Herodotus Book II*, London, Methuen, 1939, commentary ad loc.

¹⁴⁰ Armayor, *Herodotos' Autopsy of the Fayoum, Lake Moeris and the Labyrinth of Egypt*, Amsterdam, Gieben, 1985.

¹⁴¹ Armayor, *Herodotos' Autopsy*, p48. Armayor says for example of Flinders Petrie that 'he refused to accept the tentative conclusions of his pupils and began to reinterpret their data in accord with Herodotos'. (p26).

the question here is whether Herodotus' narrative applies to the fifth-century Fayoum no matter where he went. To accept his authority here is to assume that:

- a) Herodotus really went to the Fayoum, and
- b) his Labyrinth and Lake Moeris reflect that autopsy.¹⁴²

Armayer accepts the findings from 'modern archaeology and geology' of Gertrude Caton-Thompson and Elizabeth Gardner who surveyed the area and published the results in two articles and a book between 1929 and 1937:

In three different landmark works, and supported by their own, and Hug's geological research in the northern Fayoum they argued at length in 1929, 1934 and 1937 that even as Strabo could never have seen a vast, open sea in the Fayoum because it was settled and tilled at all levels in Ptolemaic times (JRGS lxxiii.1929.47ff), and regardless of what Herodotus thought he saw (p. 57), Herodotus never could have found a great, high-level lake in the fifth-century Fayoum because all the evidence of geology and archaeology alike makes that lake retreat into insignificance long before history began (pp. 51ff). [emphasis added]¹⁴³

And their summary statement of 1936:

Indisputable proof for the existence of a high-level historic Lake Moeris may still be forthcoming, but we do not think ... that they have yet been presented.

and Armayer adds 'the same is true in 1984'.¹⁴⁴ With this, the single identification offered by any scholar, knocked out of play we are left to decide what it is that Herodotos was describing at 2.148. Armayer argues that it is in 'Priam's palace that we find the epic model of the Labyrinth'¹⁴⁵ and that Herodotos has absorbed a Greek tradition of a labyrinth which he uses, not altogether consciously, as a model for the labyrinth description. Unlike Leaf and Luce, Armayer has not gone to the spot

¹⁴² Armayer, *Herodotos' Autopsy*, p32.

¹⁴³ Armayer, *Herodotos' Autopsy*, p25 (the page numbers within the quotation are given by Armayer).

¹⁴⁴ Armayer, *Herodotos' Autopsy*, p28.

¹⁴⁵ Armayer, *Herodotos' Autopsy*, p69.

himself to verify Herodotos' description and this is partly because the identification of Lake Moeris with the Fayoum has been the accepted position for two and a half centuries since the time of Lepsius:¹⁴⁶ an identification already made so firmly would gain nothing from Armayor's autopsy. We saw above that Leaf and Luce were able to garner enough personal conviction of identity of place viewed as to make an inference of autopsy on Homer's part. So Armayor makes the logically similar, but converse, conclusion that, the identification being disproved, Herodotos' autopsy is called into question:

The labyrinth and Lake Moeris involve no less an issue than Herodotos' autopsy and Herodotos' authority.¹⁴⁷

We should note that Herodotos' autopsy is not thereby immediately disproved because the identification in question is modern and independent of Herodotos' statements. We will see in Chapter 8 that there is another way to analyse Herodotos' description of the 'labyrinth'.

2.4 Goat Island

'Goat Island' is much discussed as a singular affective (or economic) description within the Homeric corpus. As there are only scattered pauses for landscape description in the *Iliad* and the *Odyssey* the passages in which it does occur have received much attention. It is part of the narrative by Odysseus to the Phaiakians about his adventures since leaving Troy and presents an opportunity to test for coherence of spatial description. 'Goat Island' (unnamed by Homer), where Odysseus and his men make landfall immediately before their adventure with the Cyclopes, is described at *Od.* 9.116–151. The description is given in almost exclusively economic terms and features are listed by their character as resources for man (μάλα κ' ἄφθιτοι ἄμπελοι εἶεν, 9.133 and 131–134 meadows, good soil to grow crops, capable of growing grapes).¹⁴⁸ As far as position goes, the island is described as παρὲκ λιμένος τετάνυσται | γαίης Κυκλώπων (9.116–117) and, rather unhelpfully, οὔτε σχεδὸν οὔτ' ἀποτηλοῦ; and when the ships come into the harbour we are not told whether the

¹⁴⁶ 'It was only in the time of Lepsius that scholars began to think of Herodotos's Labyrinth in terms of reality' (Armayor, *Herodotos' Autopsy*, p48).

¹⁴⁷ Armayor, *Herodotos' Autopsy*, p9.

¹⁴⁸ Note also 9.108-110 Cyclopes plant no crops, wheat and barley grow without cultivation. Compare Herodotos' complaint that Egyptians did no work to harvest grain because of the flood of the Nile.

harbour faces the Cyclopes' island or is on the further side. This omission presents a severe problem for visualisation. Even this, though, is after all strangely logical as when Odysseus and his men arrive at the island they have no idea they are in fact coming in to land until the ships beach safely, guided by Apollo (9.146-148). Further orientational and position information is added by the next dozen or so verses as they explore the island (νήσον θαυμάζοντες ἐδινεόμεσθα κατ' αὐτήν, 9.153). They become aware of the Cyclopes within earshot on the main island (9.167) and see their smoke (though this could be from anywhere on the island). The absence of the critical positional information is explained if Goat Island was lower than the profile of the main island and so could not be distinguished as separate on approach (though according to my own observation referred to in chapter 1 as a recognisability quality it would still be distinguishable by colour). As Goat Island becomes important again in the final scene of the Cyclopes adventure it would be helpful to have some sense of the arrangement of the islands and the position of the harbour where the ships were so as to understand the departure scene.

The expectation of course presupposes that the poet has in all cases a spatial armature controlling all verses. Either he has, and has slipped here, or there is no universal spatial substructure. If the poet has slipped, the reason might be that the information given for Goat island and the main island is landscape description—it conforms to our definition of landscape as scenes perceived and ordered so as to have meaning. In that case the pure positional information might be lost—has given way to the higher imperative of giving the the economic and affective information. This effect might be parallel to the argument Michael Nagler makes for the operations of sound concordance in the construction of verses, so that a verse is composed (comes into being) by a combination of memory for meaning and memory for sound.¹⁴⁹ Nagler identified the places where the sound correspondences might have dominated in the making of the verse precisely because they could be seen as departures from a purely semantically driven method of composition. The slip in our case is between the fact of the two islands which is essential for the plot and failure to give enough spatial information for the departure scene.

¹⁴⁹ Michael Nagler, *Spontaneity and tradition: A study in the oral art of Homer*, Berkeley, University of California Press, 1974. Nagler quotes Plato on the poet's ὑπόνοια, his “inference” or “meaning beneath the surface” (p209).

The reason I propose this is that consistency of view is more in accord with what we know about spatial cognition and spatial description than randomness is: people normally describe places by reference to a mental model. We have to ask over what stretch of the poem we expect strict consistency in the spatial schema—so that we then talk sensibly of a ‘slip’ – a departure – from consistency of view. The obvious maximum stretches are the distinct separate areas of land: Ithake, the Peloponnese (Telemakhos’ journey there and back), the separate islands of Odysseus’ Phaiakian tales.

For the adventure among the Kyklopes, it appears the break in the spatial schema occurs within the episode, so that although the reason for no relative positional information at the beginning—Apollo directed them and mere mortals could not see—is consistent, the information still has not been given by the time it is needed at the end of the episode.

Part I: Summary

In this part I have juxtaposed texts which are self-consciously geographical description (Evans on the Mourne country and on France, Stevenson imaginatively on the valley of the Rhône) with the sole passage from Homer in which he pauses to describe landscape and with a passage from Herodotos self-consciously working out from first principles the foreign landscape of Egypt. And the latter also stands against the commentary by A. B. Lloyd which assesses Herodotos’ understanding against topographic fact.

Similarly juxtaposed are the texts of Walter Leaf on the Troad and J. V. Luce on Ithake. Luce in particular, but also to some extent Leaf, add visual material to their texts—photographs and maps roughly contemporary with their own exploration—as test and verification of their arguments. Both come to the general conclusion that the poet was accurate in all respects and that there is scarcely a single statement which controverts their overall conclusion that Homer had “been there”.

The difference between Armayor’s enquiry about Herodotos’ autopsy and that of Leaf (Luce) with respect to Homer is that the latter have an antecedent text to assess their own landscape experience against. Armayor reads the *Histories* against Homer

and is persuaded that Homer was a source for Herodotos. The concern of all three of the modern commentators is to answer a question ‘was Homer (Herodotos) “there”’.

Part II Visualisation

Chapter 3

Visual Forms

In this part I consider the ways the geographic and spatial information in the texts of Homer and Herodotos has been presented graphically. The materials are assembled and discussed in chapters 4 and 5; in this chapter I give a justification for treating graphic representations as a distinct approach to understanding space. Spatial graphics in the modern history of the texts are persistent (they occur for example in the 2012 New Pauly in roughly similar form to those of 150 years before¹⁵⁰) and it is worthwhile to ask why. Attention to this minor genre also gives us ability to ‘triangulate’ while keeping in mind the secondariness of graphics: that is, we can use the secondariness of spatial graphics to test understanding of spatial ideas in the texts. A further and more speculative reason for analysis of spatial graphics, which I propose in the conclusion to this part, is to learn what might have been possible in ancient Greece.

3.1 Setting up the problem: Ancient Greek cartography (or not)

This part is concerned with the analysis of modern graphics, not ancient ones; but the existence of (or non-existence), and the possible form of, any ancient Greek cartography is a difficult and disputed question and one which forms part of the motivation for the modern graphics I discuss in chapters 5 and 6, so I summarise the debate here.

3.1.1 Ancient Greek cartography

With the exception of coin representations, no maps from the classical period survive in the form of contemporary documents.¹⁵¹ Of the general geographical works which

¹⁵⁰ See section 5.4, fig. 5.10 for the New Pauly map.

¹⁵¹ Following the authority of Eratosthenes, Strabo knows of no-one between Homer and the late sixth-century Ionians Anaximander and Hekataios, the former producing the first map (τὸν μὲν οὖν ἐκδοῦναι πρῶτον γεωγραφικὸν πίνακα). Although Strabo qualifies πίναξ here because it retains a general meaning of ‘panel’ or ‘painting’ he is able elsewhere to use πίναξ as a technical term, whereas Herodotos uses a descriptive term γῆς περίοδος for map in the first passage above; and in the second passage, where he uses πίναξ it seems to mean the panel itself (at least as common a meaning as specifically a graphic / map), which could have had anything engraved on it, but happens to have a γῆς περίοδος. According to Strabo, Eratosthenes wanted to revise the old maps, especially in the region of India, so that we can conclude that ‘the old maps’ themselves dated to before Alexander’s expedition. Strabo’s dense discussion of the theory and practice of so many previous writers, frequent citations and

might be expected the refer to cartographic practice there is nothing complete between Herodotos in the fifth century BC and Strabo four centuries later. Strabo's *Geography* is therefore the single most important source for an account of geographic theories of the period before Herodotos. Given this situation, existence questions have been front and centre in all discussions of the nature of ancient Greek cartography.

Germaine Aujac gives the positivist view in her article for the comprehensive multi-volume *History of cartography*.¹⁵² While emphasising the lack of primary material:

the vast majority of our knowledge of ancient Greek cartography in this early period is known from second- or third-hand accounts.¹⁵³

our conclusions must . . . rest on literary sources (often at several removes from the practice they describe)¹⁵⁴

and its uncertainties:

The actual level of Anaximander's scientific knowledge was probably far less than the secondary and tertiary sources suggest;¹⁵⁵

Her answer to the existence question is nevertheless still a resounding 'Yes'. She shows Bunbury's Hekataios map, labelling it appropriately "a reconstruction of Hecataeus' world view" but the next paragraph begins:

The materials used for these early maps were probably substantial.¹⁵⁶

The referent of "these early maps" is the evidence for the existence of maps in Greece in the archaic period, given in the several paragraphs preceding, but the slippage between "world view" and "these early maps" is palpable. Phrasing throughout the article is consistent and reveals clearly a working assumption: "Greek craftsmen-

naming of their works, demonstrates that there existed at this period a developed body of knowledge concerning not only the measurement of the earth but the mapping of it, to which he devotes the final section of Book 2, interspersing topographic description – some from his own travel (e.g., 2.5.11) – with description of the map. There is also confirming material from the early 3rd century AD Ionian intellectuals, including Anaximander, in Diogenes Laertius' (*Lives of Eminent Philosophers*, trans. R. D. Hicks, 2 vols., Heinemann, London, 1925). The ἀρχαίους πίνακας bring us at least back to the mid fourth century, 100 years before Herodotos.

¹⁵² Germaine Aujac, 'The foundations of theoretical cartography in archaic and classical Greece', J. B. Harley & David Woodward (eds.), *The History of cartography*, vol 1, *Cartography in prehistoric Europe and the Mediterranean*, Chicago University Press, 1987, pp130–147.

¹⁵³ Aujac, 'Foundations', p130.

¹⁵⁴ Aujac, 'Foundations', p133.

¹⁵⁵ Aujac, 'Foundations', p134n15.

¹⁵⁶ Aujac, 'Foundations', p134.

philosophers who tried to express concepts in graphic form” and a reference to Herodotos’ “failure to express his ideas in graphic form”, show an awareness that there is a significant difference between text concepts and graphic concepts.¹⁵⁷ However, there is no development of the idea (as revealed by the use without critique of Bunbury’s Hekataios map). Indeed in the 1980s there was little to guide a map historian in making any serious assessment of “graphic concepts”. What graphic concepts are deployed in the modern graphics in pseudo-map and schematic form is discussed in the following two chapters.

A widely different view of existence evidence is put by Kai Brodersen in a 2004 review article, in which he argues that in this case absence of evidence is evidence of absence: that no surviving Greek maps means no Greek maps were made.¹⁵⁸ Some of the evidence we should expect, according to Brodersen, is reference to a common practice of map use, or at least of map use by certain sections of society; Brodersen finds such evidence in China in the first few centuries BC, and claims there is nothing similar in ancient Greek literature.¹⁵⁹ Against this we may note that it is possible for whole classes of material objects to disappear from their very frequency of use, as was the case, for example, for Hebrew bibles.¹⁶⁰ The argument can be shown to be unsustainable for other reasons as well.

My own view is that Herodotos is our first reliable, dated, witness and that his testimony is incontrovertible evidence of the existence of spatial graphics, of unknown form, but drawing not text, as being familiar if not everyday items among at

¹⁵⁷ Aujac, ‘Foundations’, pp134 & 137.

¹⁵⁸ Kai Brodersen, ‘Review article: Mapping in the ancient world’, *JRS* 94(2004):183–190 at 185: ‘Traditionally, then, Mapping the Ancient World was considered inseparable from Mapping in the Ancient World. More recent research, however, has pointed out that this implication is untenable.’

¹⁵⁹ Brodersen, ‘Review Article’, pp183–184. NB. Notwithstanding the title of the article, Brodersen appears to be thinking mainly of ‘the Hellenistic and Roman worlds’. He refers to ‘linear’ and ‘hodological’ modes of ‘perception and representation of space’ as being ‘practical’ and ‘successful’ and as having ‘shaped how space was represented by the Ancients’; we know this, he says, from ‘modern psychological research’. To Brodersen ‘perceiving’ and ‘representing’ are the same thing. ‘hodological modes of perceiving and representing space’, (Brodersen, ‘Review Article’, p 188. ‘perception and representation of space’, p185, 186, ‘modern psychological research’, p185. This issue has also been discussed by Claude Nicolet in a book he refers to (p1) as an ‘historical reflection on space’. Nicolet devotes a chapter to ‘errors and truths’, that is, the question of whether the geographical knowledge of classical period Greeks, and of the Romans as their intellectual descendants, was fundamentally different from ours. (Claude Nicolet, *Space, geography, and politics in the early Roman empire*, Ann Arbor, University of Michigan Press, c1991.)

¹⁶⁰ They simply ‘disintegrated’ from frequent use: Christopher de Hamel, *Bibles: An illustrated history from papyrus to print*, Bodleian Library, Oxford, 2011, pp17–18; admittedly this does not tell finally against Brodersen’s argument which is after all that there should be detectable some reference to use even if all material evidence has disappeared.

least certain sections of society.¹⁶¹ The *Histories* contain two explicit references to maps, at 4.36 and at 5.49. The first of these is a comment on contemporary world maps as representations:

Καὶ ταῦτα μὲν Ὑπερβορέων πέρι εἰρήσθω· τὸν γὰρ περὶ Ἀβάριος λόγον τοῦ λεγομένου εἶναι Ὑπερβορέου οὐ λέγω, ὡς τὸν οἰστὸν περιέφερε κατὰ πᾶσαν γῆν οὐδὲν σιτεόμενος. εἰ δὲ εἰσὶ ὑπερβόρειοι τινὲς ἄνθρωποι, εἰσὶ καὶ ὑπερνότιοι ἄλλοι.

Hdt. 4.36.1

And that is all for the Hyperboreans; for I will not tell the story of Abaris who is said to be a Hyperborean and how he carried his arrow around the whole world, taking no food. If there are some people who are Hyperboreans, then there are others who are Hypernotians.

γελῶ δὲ ὀρέων γῆς περιόδους γράψαντας πολλοὺς ἤδη καὶ οὐδένα νοονεχόντως ἐξηγησάμενον· οἱ Ὠκεανὸν τε ῥέοντα γράφουσι πέριξ τὴν γῆν ἐοῦσαν κυκλοτερέα ὡς ἀπὸ τόρνου, καὶ τὴν Ἀσίην τῇ Εὐρώπῃ ποιούντων ἴσην. ἐν ὀλίγοις γὰρ ἐγὼ δηλώσω μέγαθός τε ἐκάστης αὐτέων καὶ οἷα τις ἐστὶ ἐς γραφὴν ἐκάστη.

Hdt. 4.36.2

I laugh when I see that many have nowadays drawn the circuit of the earth and no-one has performed it sensibly; they draw Ocean flowing around the earth which is circular as from a pair of compasses, and they make Asia the same size as Europe. I can show in a few words the size of each of them and what the form of each is when drawn.¹⁶²

¹⁶¹ My qualifications in this statement should be emphasised: ‘familiar if not everyday’ addresses the idea that Herodotos had seen more than one, and in my view even two or three drawings of whatever form they were would be sufficient to make them ‘familiar’ even if he only saw them once; and ‘certain sections of society’ emphasises that Herodotos was part of the literate culture of fifth-century Greece which did not include everyone who spoke Greek. The sentence is not meant to imply that fifth-century Greece was ‘map immersed’.

¹⁶² γῆς περιόδους γράψαντας alone could be taken as people who write journey descriptions and Ὠκεανὸν τε ῥέοντα γράφουσι πέριξ τὴν γῆν could in a similar way be taken as they write [sc. descriptively] that Ocean flows around the earth (so we still have no map at this point) but once we get to ἐοῦσαν κυκλοτερέα ὡς ἀπὸ τόρνου we must go back and revise γράφω to = ‘draw’ as ἐοῦσαν agrees with γῆν so that it is γῆν which is perfectly round - which must be a drawn form not a form described in words.

As he commonly does in his historical narrative, in this passage Herodotos is making several points which we can separate out as logical propositions:

- a) many people make maps
- b) few people (none) make good maps
- c) contemporary maps take a silly form
- d) a good map is unobjectionable (logical inference from (b) and (c))
- e) a few words will make clear the relationship of continents

Recently Alex Purves has argued that Herodotos is here setting his description of the layout of lands in words as against others' description in a map, and she therefore makes his project of description a strongly "countercartographic" one.¹⁶³ However, taking notice of the context provided by the previous statement at 4.36.1 on the Hyperboreans and Hypernotians, we can make a different inference from (b) and (c) combined, expressed as (d): if mapmaking (ἐς γραφήν) is not done well Herodotos must have a view about how it should be done. In particular, he wants what is unbounded and what is unknown to be represented. But neither of these qualities—qualities of uncertainty and fuzziness—is at all easy to represent in a picture or map. Later mapmakers indicated ignorance on a maps by resorting to words such as 'terra Australis incognita'.

In the second of his explicit references to maps (5.49), Herodotos tells the story of Aristagoras' futile embassy to Sparta to get help in the Ionian revolt:

ἀπικνέεται δὲ ὧν ὁ Ἄρισταγόρης ὁ Μιλήτου τύραννος ἐς τὴν Σπάρτην
Κλεομένεος ἔχοντος τὴν ἀρχήν· τῷ δὴ ἐς λόγους ἦιε, ὡς Λακεδαιμόνιοι
λέγουσι, ἔχων χάλκεον πίνακα ἐν τῷ γῆς ἀπάσης περιόδου ἐνετέμμητο
καὶ θάλασσά τε πᾶσα καὶ ποταμοὶ πάντες.

So Aristagoras the tyrant of Miletos arrived at Sparta when Kleomenes was in power. He went for the purpose of a discussion with him, according to the Lacedaimonians, taking with him a bronze tablet on

¹⁶³ Alex Purves, *Space and time in ancient Greek narrative*, Cambridge University Press, 2010, pp18, 22, 154–158. See my further discussion of this argument below.

which was engraved a specification of the whole earth including all the sea and all the rivers. *Hdt. 5.49*

He then gives an account of Aristagoras' embassy, not, as it usually would be, a verbal account ('a frank exchange of views') but rather a vignette of Aristagoras pointing at his map as he explains what he wants Kleomenes to do.

δεικνὺς δὲ ἔλεγε ταῦτα ἐς τῆς γῆς τὴν περίοδον, τὴν ἐφέρετο ἐν τῷ πίνακι ἐντετμημένην. *Hdt. 5.49.5*

And pointing at the survey of the earth which was engraved on the tablet he was carrying, he spoke as follows.

If we were still in any doubt about Herodotos' familiarity with actual maps, the passage above and the verb δεικνὺς would make it quite certain that what was engraved on the πίναξ was a spatial graphic of some kind—something which "uses space to represent space".

We have, then, two diametrically opposed views: on one hand that there was a substantial intellectual tradition of theory and practice of cartography in Greece going back to the sixth century, and on the other, the view, represented by Brodersen, that we should have at least some direct evidence, and where it does not exist we must conclude that there was no substantial cartographic practice in Greece. This leads to some further basic questions: why did Greek mapping not survive? Is it because we cannot recognise what has survived?

The extant texts are sometimes explicitly inter-referential (even Herodotos mentions Hekataios by name). Textual criticism has supplied the other relationships implicitly. This has enabled a network of assumptions about graphic practice which, though built on distinct and widely separated data points, gains strength as a whole fabric. The established practices of exegesis constantly stretch the fabric, alternately tearing holes and repairing them with new thread. Confidence in these methods has engendered a further confidence that graphical practices, whether as sustained intellectual endeavour before Herodotos or as a *techne*, or both, can be inferred as well. Perhaps

they can, but we need some material to think with, and should probably look for it from scholars versed in graphic understandings rather than classicists.

3.2 The intention of graphics

The book in which W. J. T. Mitchell described the pictorial turn in the history of Western culture voices a lament that there is a lack of a ‘powerful account of visual representation’.¹⁶⁴ Twenty years later this is still true, nevertheless there has been substantial research in visual perception, and in graphic (especially software) support for visualisation in problem solving. For maps in particular a crucial study is Alan MacEachren’s *How maps work*, a stimulating survey and synthesis of research in map design principles.¹⁶⁵ MacEachren argues that the way people ‘read’ graphic material and take meaning from it must be studied at several levels, including the physiological, the perceptual / interpretive and the cognitive, taking a ‘multilevel, multiperspective approach’¹⁶⁶ because

the communication paradigm took us a step in this direction but floundered due to a fundamental assumption that matched only a small proportion of mapping situations: maps as primarily a “vehicle” for transfer of information. A representational perspective, in contrast, begins with an assumption that the process of representation results in knowledge that did not exist prior to that representation; thus mapping and map use are processes of knowledge construction rather than transfer.¹⁶⁷

The graphics I want to discuss in this part fall into two groups: those which imitate an actual (modern) map; and those which are more schematic. Figure 3.1 is of the first type which I call pseudo-map is convenient as a first illustration because it is a recreation of ‘Hekataios’ world’, making use of the indications of that view from the fragments, and indirect information about Hekataios’ work in Herodotos’ *Histories*, as well as indications in other writers. The map was drawn by Edward Bunbury and appears as one of a series used throughout his *History of ancient geography* to

¹⁶⁴ W. J. T. Mitchell, *Picture theory: Essays on verbal and visual representation*, Chicago University Press, 1994, p13.

¹⁶⁵ Alan MacEachren, *How maps work: Representation, visualization and design*, New York, Guildford Press, 1995.

¹⁶⁶ MacEachren, *How maps work*, p25.

¹⁶⁷ MacEachren, *How maps work*, p459.

illustrate geographical ideas. Pseudo-maps were produced by many eighteenth, nineteenth- and twentieth-century scholars interested in the history of Greek geography. That they were produced by editors, translators and historians very well-versed in the relevant texts would be reason enough not to dismiss them; and new thinking in the history of cartography as well as research in the nature of visual thinking makes re-evaluation possible. In his lifetime Bunbury himself was the acknowledged expert on ancient Greek geography; and his two-volume *History* is still a standard work.¹⁶⁸

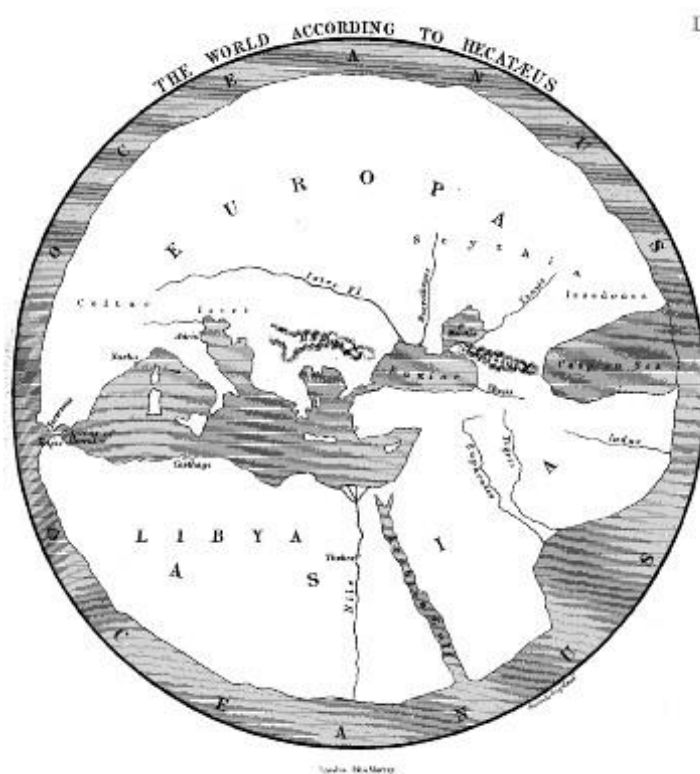


Fig. 3.1 Edward Bunbury's rendering of 'the world according to Hekataios' (*A History of Ancient Geography among the Greeks and Romans, Plate II, opposite p148*).

The principal justification for the general form is a dozen words in Herodotos:

οἱ Ὠκεανόν τε ῥέοντα γράφουσι πέριξ τὴν γῆν ἐοῦσαν κυκλοτερέα ὡς
ἀπὸ τὸρνου *Hdt.* 4.36.2

¹⁶⁸ Edward Bunbury, *A history of ancient geography among the Greeks and Romans*, 2 vols., 2nd edn, London, Dover, 1959 [1883]. See also the brief biographical note in the DNB: 'As a thorough, balanced exposition of its challenging and fundamental subject, Bunbury's work remains unmatched in any language. It . . . continued to be cited as standard for a century.' (Richard J. A. Talbert, 'Bunbury, Sir Edward Herbert, ninth baronet (1811–1895)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Oct 2008 [<http://www.oxforddnb.com/view/article/45514>, accessed 17 July 2015].

They draw the Ocean flowing around the earth which is made round as if
by a pair of compasses

The extant fragments of Hekataios' text number *in toto* 373,¹⁶⁹ but most are exiguous, speculative or irrelevant to any visualisation or cartography he may have done. What remains is a small number which are taken to speak to Hekataios' knowledge of geographic features, especially, for map drawing purposes, those which govern the general shape: the line of rivers (Nile, and Danube) relative to coasts and his understanding that the Caspian was a bay of the Ocean. Bunbury put these indications and allusions together to create the composite visualisation of figure 4.1, assembling and juxtaposing each of the pieces of textual information to create a whole.

This part is an attempt to reconstruct the history of cartographic commentary on the texts of Homer and Herodotos, or at least to see whether such a project is feasible, concentrating on the more available published material of the nineteenth and twentieth centuries.

A fundamental question for the first, the map like forms I shall call pseudo-maps, is whether they were intended by their creators to represent some lost ancient Greek graphic form or rather are intended to reify the mental map of the modern creator. An interesting aspect to the historical analysis especially of the pseudo-map form (as the longer in existence) is what happens when they are taken out of context and re-used in other publications.

A second critical question is what justification modern graphics have as representations of ancient Greek knowledge—and precisely how a modern graphic represents that knowledge.

To begin to address this question, I review current understanding of visualisation, as a preliminary to the examples presented in chapters 4 and 5.

¹⁶⁹ Altogether, there are 25 anecdotes and testimonia for Hekataios, and 373 separately numbered fragments quoting or paraphrasing (who can tell which?) Hekataios' words. These include two doubtfuls and one actually from Hekataios of Adbera according to Pownall. See Felix Jacoby, *Die Fragmente der Griechischen Historiker*, Part 1, 1957, Leiden, Brill, pp1-47; the same numbers in Brill's *New Jacoby* (BNJ) and translated there by Frances Pownall. (<http://referenceworks.brillonline.com/entries/brill-s-new-jacoby/hekataios-of-miletos-1-a1?s.num=10>).

A clue to the intention of the spatial graphics used to illustrate modern editions of Homer and Herodotos is gained by noting that on the one hand they have been created by classicists, who have sometimes turned cartographer and made maps of the ground they were exploring or the texts they were editing, and on the other hand they have been created by geographers interested in the history of their own discipline, such as James Rennell (1742–1830), surveyor and cartographer of India.¹⁷⁰

Maps, as Brian Harley observes, are a ‘relatively simple iconic device’ and therefore deceptive as historical documents.¹⁷¹ Harley was speaking maps as documentary source material, which are therefore witnesses to the society which produced them; the spatial graphics we are considering here are even more deceptive: being potentially not only deceptive in their iconicity but in their source, which is text rather than realia. The pseudo-map category in particular by virtue of its form occupies a rather ambiguous position between geographical representations and cognitive maps. Pseudo- maps have been presented implicitly or explicitly as the unproblematic reproduction either of a ‘world view’ or even of an actual map from ancient Greece; this is in spite of the fact that the conversion of textual into graphical knowledge is by no means unproblematic. The shaded area in figure 3.2 is intended to focus the discussion on the differences between text and graphic as information carriers.

¹⁷⁰ Rennell, former naval officer and Surveyor-General of India, was also important in the history of modern geography. His considerable influence on geography in England over the long second half of his career (residence in London from 1778 to his death in 1830) is noted by Andrew Cook (‘Rennell, James (1742–1830)’ in the *Oxford Dictionary of National Biography*, Oxford University Press, 2004 (<http://www.oxforddnb.com/view/article/23369>, accessed 21 Nov 2012]). Rennell’s *Geographical System of Herodotus* was published in 1800 with maps drawn by the author [accessed online from <http://archive.org/stream/geographysystem00renngoog#page/n10/mode/2up>]. see further below section 4.2.1.

¹⁷¹ J. B. Harley, ‘The map and the development of the history of cartography’ in *The history of cartography*, vol. 1, pp1–42, University of Chicago Press, 1987, p2; ‘On the other hand, however simple maps may appear at first sight, on analysis they are almost certainly less than straightforward.’ (ibid. p3).

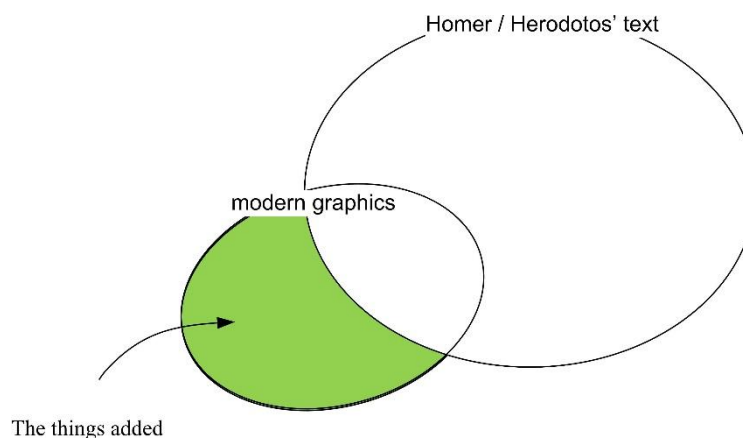


Fig. 3.2 Venn diagram of graphic versus textual knowledge

Pseudo-maps, like standard geographic maps, ‘use space to represent space’ in David Mark’s definition; and they have a ‘logic of juxtaposition’ and ‘unfurl over space’ in Dennis Wood’s phrases.¹⁷² Drawing on the historiography of mathematics as an area related to geographic mapping in that it presents results in text and graphics, it is noticeable that up until the last generation or two mathematical ideas of past eras were commonly explained by transforming them into modern notation and assuming problem solving procedures. This is no longer accepted and historians of mathematics must go back to the original documents, or surrogates, to get close to the thought processes and working methods of the time.¹⁷³ A similar change has occurred in the history of cartography which now takes a less internalist view of maps as mere carriers of information and looks instead for the socially conditioned contemporary meanings of a map as a whole. However, our problem, as remarked above, has yet another historical-interpretive layer because the pseudo-maps we are considering are technical illustrations, rather than historical documents contemporary with the ideas they represent, and as such are more akin to fictive maps than ‘real’ maps. Research on map use comes closest to addressing the need for a hermeneutic of pseudo-maps. As Ooms et al. remark, the massive availability (and it is assumed, use, as well) of ‘cartographic products’ now available on the Web drives a need by cartographers to

¹⁷² Dennis Wood, ‘The fine line between mapping and mapmaking’ *Cartographica* 30.4 (1993): 50–60, p57n6.

¹⁷³ Stedall, *History of Mathematics*, pp107–112 (generally) and 34–36 for a problem from an Indian text of AD628 which, although it turns out to be algebraically trivial in substance, yet cannot be understood without the help of an expert because it is quite alien in working method (as well as notation, but not just notation).

understand better the cognitive processes involved in map use, that is, map viewing or interpretation.¹⁷⁴

3.3 Visualisation research

Research on the functioning and effects of technical illustrations has been small when compared with the substantial body of literature on the interpretation of high art.¹⁷⁵ If we define ‘technical illustration’ to mean a graphic created to explain and supplement some other object or text, which is regarded as the primary object, maps would be included in the category of two-dimensional data types and pseudo-maps and schematics are ‘point solutions’.¹⁷⁶ Though possibly one of the lesser arts, technical illustrations are of great interest from a functional point of view as expressing a transform of the knowledge in a narrative text.¹⁷⁷ Much new visualisation research has been driven by a need to develop software to support commercial and educational enterprise, where the research effort is concentrated on ‘visual analytics’, that is, with understanding ‘the relationship between visual displays and human cognition’.¹⁷⁸

¹⁷⁴ Kristien Ooms, Philippe De Maeyer & Veerle Fack ‘Listen to the map user: Cognition, memory, expertise’ *The cartographic journal* 52.1 (2015): 3–19 at p3.

¹⁷⁵ Simon Goldhill and Robin Osborne address the question of the interrelation of art and text in their introductory essay to Simon Goldhill & Robin Osborne (eds.), *Art and text in ancient Greek culture*, Cambridge University Press, 1994; see also and especially Mary Beard, ‘Adopting an Approach II’ in Tom Rasmussen & Nigel Spivey (eds.), *Looking at Greek vases*, Cambridge University Press, 1991 (pp12–36) which deconstructs ‘the methods of Beazley and his concentration on the artist–producer to focus instead on the viewer’ (p35). For visualisation research see M. Norton Wise, ‘Making Visible’ *Isis* 97(2006): 75–82; in this overview essay of the state of understanding of visualisation in science, the author uses the expression ‘poverty of understanding of visualization’ (Abstract) and points out that research efforts have increased in the last 30–40 years but ‘there is a long way to go’ (p75). Mathematicians, in particular, have always used diagrams to facilitate ‘external cognition’ but even so they can be taken by surprise by the extent to which visualisation can be useful: see the opening remarks of Tom Apostol, ‘A visual approach to calculus problems’ *Newsletter of the European Mathematical Society* 64 (2007): 17–23 [Accessed from <http://www.scribd.com/doc/2668595/Newsletter-of-the-European-Mathematical-Society-20070664-featuring-Let-Platonism-Die> on 13/4/2014]. See also the critique of research to date in graphic thinking in Mike Scaife & Yvonne Rogers, ‘External cognition: How do graphical representations work?’ *International Journal of Human-Computer Studies* 45.2 (1996): 185–213.

¹⁷⁶ Maps are a two-dimensional data type in Shneiderman’s classification which goes from one-dimensional (text, lists) to multi-dimensional (statistical and other databases): Ben Shneiderman, ‘The eyes have it: A task by data type taxonomy for information visualization’ in Benjamin B. Bederson & Ben Shneiderman (eds.), *The craft of information visualization: Readings and reflections*, pp364–371, Amsterdam, Morgan Kaufmann, 2003, pp365–366.

¹⁷⁷ I borrow this term from mathematics where it means conversion of an equation in one variable (x) to an equation in another (y) where the initial and the new forms are regarded as equivalent (no loss of information) and the process is performed for the sake of the greater convenience in manipulation of the new form. Discussion in Granino A. Korn & Theresa M. Korn, *Mathematical handbook for scientists and engineers: Definitions, theorems and formulas for reference and review*, New York, Dover, 2000 [1968], 2nd edn., §12.1–12.4 (pp374–386); definition of transformation of variables in §9.2–3 (pp248–9).

¹⁷⁸ William A. Pike, John Stasko, Remco Chang & T. A. O’Connell, ‘The science of interaction’ *Info Vis* 8.4 (2009): 263–274 at p263.

Within that visual analytics agenda the research effort is not just in software development but in developing a ‘science of interaction’ as:

a much broader concept than just the principles for creating interface widgets. Some of one’s interaction with an information space might take place within the context of a software tool, much of it occurs internally in one’s mind¹⁷⁹

In the field of visual analytics the presumption is that ‘development of human insight is aided by interaction with a visual interface’¹⁸⁰ and that graphics provide scaffolding for problem solving, but do not necessarily capture the thinking which the user is doing even to solve a well-defined problem.¹⁸¹ All researchers in this area emphasise the uncertainty and provisional nature of results, indeed even ‘previous methodologies inadequate’ is a frequent trope in the literature,¹⁸² revealing that software is sophisticated but understanding of exactly how problems are solved graphically—how users actually work with them—is still not understood.

The following chapters therefore discuss particular examples of Homer and Herodotos spatial graphics, borrowing methodology from art-historical analysis, with the aim of (a) elucidating style by describing the graphics in question and noting similarities and differences in graphic method (shape, line, use of colour, labelling etc.); (b) elucidating meaning by noting what associations the graphic motifs and ideas have at the time of their production; and finally (c) placing them in a wider social context of production, covering the reason for their existence as objects and their function in a particular period and society.¹⁸³ The result of a stylistic analysis at a general level is a broad distinction between map like forms and schematics and this

¹⁷⁹ William A. Pike, John Stasko, Remco Chang & Theresa A. O’Connell, ‘The science of interaction’ *Info Vis* 8.4 (2009): 263–4.

¹⁸⁰ Pike et al. ‘Science of interaction’, p263.

¹⁸¹ For example, Eva Mayr, Michael Smuc & Hanna Risku, ‘Many roads lead to Rome: Mapping users’ problem-solving strategies’ *InfoVis* 10.3 (2011): 232–247 at p235.

¹⁸² Pike et al. speak of knowledge-based interfaces as ‘underdeveloped’ (p270), and remark that ‘additional work is needed to extend visual analytics systems to be able to represent exactly what the insight [obtained from using vis. software] is and why it is important’ (p269); interaction science is called ‘nascent’ in Robert E. Roth, ‘An empirically-driven taxonomy of interactions primitives for interactive cartography and geovisualization’ *IEEE trans vis & comp. graph* 19.12 (2013): 2356.

¹⁸³ For one not trained in art history art-historical criticism is set out particularly clearly by Mark D. Stansbury-O’Donnell, *Looking at Greek art*, Cambridge University Press, 2011, especially in his opening methodology chapter (pp1–19), as well as the expanded demonstrations in its following chapters on ‘Description and Visual analysis’, ‘Meaning’, and ‘Context’.

is the basis on which the material is divided in the following two chapters: chapter 4 discusses maplike or pseudo-map forms, chapter 5 discusses schematic forms.

Chapter 4

Pseudo-maps

4.1 Introduction

For Homer and Herodotos illustrations we can make a broad stylistic distinction between map like forms and schematics. In this chapter I examine the map like or pseudo-map form: the type of illustration often called the ‘World according to Homer [Herodotos]’ or ‘ad mentem Herodoti’. In Charles Bricker’s *History of cartography* we meet the comparable phrase ‘Eratosthenes’ world’. Are we dealing with a map, a community of thought, Eratosthenes’ mental image of the world, or a 19th-century reconstruction based on an ancient text? I pose the question: what is being depicted?¹⁸⁴

We have already come across Edward Bunbury’s Hekataios map (figure 3.2), drawn for his 1883 *History of Ancient Geography* which takes this form, such maps have a history going back at least to the eighteenth century.¹⁸⁵ They have appeared in three kinds of published works: (1) classical atlases, (2) histories of ancient Greek geography, and (3) classical texts, each of which offers a different kind of support and a different reading context. We might expect histories of ancient geography which carry pseudo-maps to use them to show changes in knowledge of the extent of the world, and that, by presumption, is what Bunbury’s history does in fact do. Maps presented in editions of the *Histories*, although they could offer the most mutual support of text and graphic, in fact offer the least, frequently having a pseudo-map used merely as decoration. In addition to the vehicle used to present them, there is an operational distinction to make, according to whether the map is an original drawing or is a re-use or re-publication.

¹⁸⁴ The maps to be discussed in this and the following chapter are more often the output of historical geographers than the subject of their analyses. We would expect that any study which took historical atlases as its subject would address some of these historical development questions. Of the very few such studies, Jeremy Black’s (*Maps and history: Constructing images of the past*, New Haven, Yale University Press, 1997) offers several creative and useful terms, including the term ‘mental geography’. However, Black points out that it is a concept we do not know very much about; and as he himself writes as an historian of the modern period and is firmly an empiricist, he offers no discussion or critique of the workings of the graphics I have identified here as the pseudo-map form.

¹⁸⁵ Of those in atlases, the earliest I have been able to see is in Robert Wilkinson, *Atlas classica being a collection of maps of the countries mentioned by the ancient authors, both sacred and profane*, London, published by Robert Wilkinson, No. 58, Cornhill, 1808 (Plate 34).

One would think it would be relatively easy to trace the documentary beginning of pseudo-maps—if not their intellectual sources—but there is a hurdle at the very start in identifying the object of research: a hurdle posed by the ‘quagmire’ (Walter Goffart’s word) of unresolved and inconsistently used terminology rife in the cross-over disciplines (history, geography, cartography). Goffart’s study of ‘the development of specialised maps and atlases for history’¹⁸⁶ is one of the few which addresses the idea of cartography done purposefully to illuminate the discussion of historical questions. One might think his subject had a suitable term in ‘historical cartography’ but Goffart observes that:

“historical cartography” lives as a convenience for today’s scholars. No one has shown that it was a pursuit engaged in under that name by early cartographers¹⁸⁷

He carefully works around the problem of terminological fuzziness by using locutions such as ‘a specialized cartography for history’ or ‘historical atlases like those we find on the shelves of the bookstores we frequent’.¹⁸⁸ The maps which will be discussed here as ‘specialized cartography for history’ pose a hermeneutic problem: (1) are they to be regarded as a creative graphic form taking any shape which its author thinks might aid understanding of historical questions; or (2) are they intended to reproduce lost Greek forms; or (3) are they some some combination of these (Greek cartography, if we had any examples, would presumably be an ancillary science to geography and history, like modern cartography)? In the discussion which follows I try to identify the particular intention of the maps presented; but before this discussion and in accordance with chronology I address the role of Ptolemy’s *Geography* in the origins of pseudo-maps.

4.1.1 Origins

It seems a plausible starting hypothesis to regard pseudo-maps as in the same line of development as the Ptolemaic maps. Ptolemy’s *Geography*, the only purely cartographic work to survive from antiquity, offers a suggestive parallel to the production and reproduction of pseudo-maps. The publication of the text and drawing

¹⁸⁶ Goffart, *Historical atlases: The first three hundred years, 1570 to 1870*, University of Chicago Press, 2003, p8.

¹⁸⁷ Goffart, *Historical atlases*, p7.

¹⁸⁸ Goffart, *Historical atlases*, pp8, 38.

of the maps has an extraordinarily complex history, in period of perhaps as much as 200 years in which map-equipped editions of the *Geography* were an active publication project.¹⁸⁹ The manuscripts and printed editions of the *Geography* exhibit cross-contamination at every level as maps are copied or drawn anew independent of the text.¹⁹⁰ For the first century and a half after rediscovery of the MS of the *Geography* the illuminators and plate engravers were merely using the best, because the only, cartographic data available to construct maps of the world. When these early Renaissance copiers or printers produced the maps they used contemporary cartographic conventions to realise Ptolemy's coordinates. A transition, in which the real status of the cartographic data comes to be recognised as historical occurs first with the publication of Waldseemüller's 1513 edition, then with Mercator's separate publication in 1578 and Ortelius' separation out in editions of the *Theatrum Orbis* of the Ptolemaic maps into the *Parergon*.¹⁹¹ But although this established a precedent by which 'historical' atlases were seen as separate projects from 'modern' atlases,¹⁹² the complexities represented by the relationship between Ptolemy's second-century AD text and these so-called 'Ptolemaic' maps were not thereby resolved. In fact the maps in manuscripts of the *Geography* were for five centuries thought to be contemporary with the text. That they are early Renaissance creations was not authoritatively established until the twentieth century, by Aubrey Diller using methods of historical text-based research.¹⁹³ This latter point is important for our purposes: while it was thought that the Renaissance productions could have been Greek maps they provided a visual model for those who were creating earlier Greek mapping.

¹⁸⁹ See Charles Bricker, *Landmarks of mapmaking: An illustrated survey of maps and mapmakers*, maps chosen and displayed by R. V. Tooley, Oxford, Phaidon, 1976, p51.

¹⁹⁰ Even apart for the multiplication of manuscripts, the sources (and stemma as we could say) for early printed editions is not always easy to work out because of typographic errors and the fact that map makers could rub out part of a plate and re-engrave it with new information. The print history of just one Ptolemaic map (Map 3, possibly by Johannes Schnitzer of Armshiem, produced possibly at Ulm, ca.1482) which is confusing for these reasons is told in Tony Campbell, *The earliest printed maps, 1472–1500*, London, The British Library, 1987, pp31–34.

¹⁹¹ R. A. Skelton, *Maps: A historical survey of their study and collecting*, University of Chicago Press, 1972, pp66–67. (Mercator printed only the Ptolemy maps, Ortelius separated the Ptolemy maps as the *Parergon* section of *Theatrum Orbis* from the edition of 1579).

¹⁹² Skelton, *Historical survey*, pp66–67.

¹⁹³ Aubrey Diller, 'The oldest manuscripts of Ptolemaic maps' *TAPA* 67 (1940): 62–67; but a book for general readership published in 1970 could still express doubt (or ambiguity): "[Ptolemy's] *Geography* . . . is in eight books, illustrated by maps" but the same author then modifies the point: "It may merely be that the maps have been put to [Ptolemy's] credit because of his reputation as a cartographer. We shall probably never know." (Raymond Lister, *Antique maps and their cartographers*, London, Bell, 1970, pp15,16.)

Not only did MSS proliferate, printed editions did too;¹⁹⁴ and all the map recensions were reprinted in facsimile in the *Theatrum Orbis Terrarum* series in the twentieth century with prefaces by R. A. Skelton.¹⁹⁵ Thus all the creators of pseudo-maps will have been familiar with Ptolemy's *Geography* in some map-equipped edition. The multitudinous re-drawings in the Renaissance editions must have presented to any eighteenth- or nineteenth-century scholar, at least from Rennell onward, a strangely distorted, yet familiar, cartography, causing it to be almost as present to his mind as contemporary cartography. The possibility was always held out by this consciousness of two cartographies of representing not a past world but a past cartography.

4.2 Nineteenth-century

4.2.1 Rennell's Geographical system of Herodotos

One of the most important of the creators of Herodotos pseudo-maps was James Rennell, whose *Geographical System of Herodotus*, first published in 1800, is an extensive discussion of every geography-related statement in the *Histories* and included a pseudo-map (figure 4.1).¹⁹⁶ Rennell (1742–1830), the 'first and greatest of English geographers', had joined the navy at 14, and was appointed Survey-General of Bengal for the East India Company in 1764 at the remarkably early age of 21.¹⁹⁷

¹⁹⁴ The printed editions are listed in Henry N. Stevens, *Ptolemy's geography: A brief account of all the printed editions down to 1730*, 2nd edn, London, Henry Stevens, Son and Stiles, 1908 [Accessed 2012 & 2015 online at <https://archive.org/details/cu31924029642414>]; Goffart notes that 'The obsolescence of Ptolemy is certain; how soon it occurred and in what circumstances are less clear.' (Goffart, *Historical atlases*, p41n13.)

¹⁹⁵ Campbell, *Earliest printed maps*, p122.

¹⁹⁶ James Rennell, *The geographical system of Herodotus, examined and explained, by a comparison with those of other ancient authors, and with modern geography*, London, 1800. G. & W. Nicol. [Digitised by Galegroup within their '18th century collections online', copy sourced from the British Library, accessed online via the National Library of Australia (NLA) 21/7/2015]

¹⁹⁷ Rennell had shown an interest in mapmaking as a young boy and learnt the practice of surveying (the art of finding relative height and distance of datum points in a region of interest) thoroughly as a midshipman between the ages of 14 and 20 years, largely by his own energies. Very full biography in Clements Markham, *Major James Rennell and the rise of modern English geography*, Cassell, London, 1895, (quote from p9).

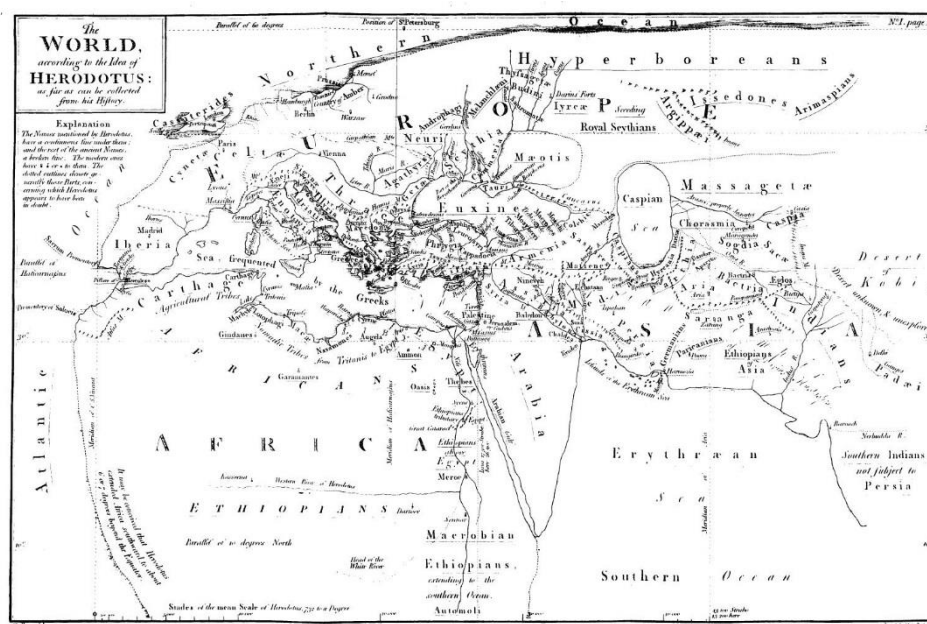


Fig. 4.1 Rennell's map of Herodotos

After an enormously productive period in India, spent surveying, first, the delta of the Ganges and Brahmaputra rivers and later the region northwards to Bhutan, Rennell returned to England in 1778.¹⁹⁸ His interest in Herodotos began soon after his return and he published several articles on Herodotos between completing the India maps and publishing the *Geographical System*.

Rennell was the only one of the pseudo-map makers who was trained in cartography.¹⁹⁹ In creating the map and the *System* he went directly to the *Histories* in translation. His reading of Greek geography was thorough, not only in Herodotos, but all the later Greek and Roman geographers and he appears, at least, to make all his own interpretations.²⁰⁰ He read the *Histories* in Beloe's translation which makes the

¹⁹⁸ He was able to retire from the East India company service at the age of 36 on being granted a pension on account of ill-health after being severely injured in an attack by tribesmen in 1766 (Andrew S. Cook 'Rennell, James (1742–1830)' in *Oxford Dictionary of National Biography*. Oxford University Press. 2004 [http://www.oxforddnb.com/view/article/23369, accessed 21 Nov 2012] The leisure of the next 50 years was used by Rennell to expand and publish his Indian maps and study the history of geography. Once settled in London he set about publishing the results of his surveys: the Bengal Atlas in 1779 (Markham, *Rennell*, p57), the map of Hindoostan in December 1782 and the *Memoir of a map of Hindoostan* in 1783. In contrast to the map of Bengal, the map of Hindoostan, including the whole of modern India, was the result of a compilation of the work of others, rather than of his own surveying.

¹⁹⁹ The *Memoir* is a description not only of the physical geography of India but also of details of government and finances of the various states. (James Rennell, *Memoir of a map of Hindoostan; or The Mogul's Empire*, 3rd edn., 1783. Accessed online from HathiTrust December 2012); Cook 'Rennell' notes that the Hindoostan map was a compilation and 'subject to constant revision by him [sc. Rennell]'.
²⁰⁰ Before Rennell's work, Cellarius had issued a *Geographia Antiqua* which showed only regions known to the ancients (i.e. no Americas or Australia), with names of regions and places according to ancient sources, on base maps of contemporary cartography. (*Geographia antiqua recognita denuo, &*

passage at 4.36 concerning existing circular maps refer to rejection of an idea of a globe.²⁰¹ Taking into account 4.13 he thinks Herodotos ‘believes’ Europe was probably bounded by sea on the north, as on the west and south. The only boundless direction is therefore east where beyond the Indians there is limitless desert. Other pseudo-map makers take 5.9 as decisive in the opposite meaning for Herodotos’ thinking on the northern limit of Europe:

τὸ δὲ πρὸς βορῶ τῆς χώρας ἔτι ταύτης οὐδεὶς ἔχει φράσαι τὸ ἀτρεκέες οἴτινες εἰσὶ ἄνθρωποι οἰκέοντες αὐτήν, ἀλλὰ τὰ πέραν ἤδη τοῦ Ἰστροῦ ἔρημος χώρα φαίνεται ἐοῦσα καὶ ἄπειρος.

As for the part of this region to the north no-one is able to say certainly what people live there, but the region on the other side of the Ister is apparently an empty country and without limit.

*Hdt. 5.9.1*²⁰²

They therefore do not draw Herodotos’ Europe as bounded by sea, whereas Rennell does.

Rennell never discusses explicitly in the *Geographical System* whether he imagined his maps to be like any graphic representation Herodotos might have had available. He labels the map ‘according to the mind of Herodotos’ and it is clear throughout his discussion that he (Rennell) thinks that Herodotos’ geog knowledge was in no sense different from ours—except in that Herodotos was not certain (or not convinced) of many particular limits and positions of settlements etc. Given Rennell’s training as a practical surveyor and cartographer it seems that he simply assumed that a ‘map’ of Herodotos’ knowledge (his own map) could represent most or all (within limits of

ad veterum novorumque scriptorum fidem, historicorum maxime, identidem ... London. 1745. [Accessed 18th century collections online, Gale Group, access from NLA]. Several editions were published in England in the eighteenth century, which Rennell may have seen, similarly D’Anville’s ‘Atlas’.

²⁰¹ Rennell, *Geographical system*, p6. William Beloe, *Herodotus, translated from the Greek, with notes and life of the author*, new edition, corrected and revised, London, Jones and Co, 1830 [<https://archive.org/details/herodotustrwith02unkngoog>].

²⁰² This passage was translated by Beloe as ‘With respect to the more northern parts of this region, and its inhabitants, nothing has yet been decisively ascertained. What lies beyond the Ister, is a vast and almost endless space.’ (Beloe, *Herodotus*, p247.)

engraved detail) that Herodotos knew. This is clear from Rennell's plain language: he always speaks simply of what Herodotos 'thought' and 'believed', for example,

No other interpretation can well be given to the passages above quoted, than that Europe extended eastward, beyond the limits of our Author's knowledge: that its limits were in effect, *indefinite* and that it remained to be determined, whether it was bounded by the sea, on the north, and east. That *he* believed this to be the case, to the *northward* appears certain²⁰³

Rennell also assumed that it would be interpreted by his readers as a map of 'wrong' knowledge according to 'right' cartography—implying a double process of map-reading by his early nineteenth-century readers.

Rennell achieved fame in his lifetime as Britain's foremost geographer, not least for his *Herodotos*, which quickly became a source for classical atlases.²⁰⁴ His *Herodotos* map was used in the *Harrow atlas of classical geography* which explicitly refers the reader to 'Rennell's Geography of Herodotos'.²⁰⁵ We may note that at about the same position on the (dotted) coastline of Africa, Rennell's map of 'The World according to the Idea of Herodotos as far as can be collected from his History' has the note: 'It may be conjectured that Herodotos extended Africa southward to about 6 or 7 degrees beyond the equator'. Rennell's *Herodotos* map was also the source for the world map in Robert Wilkinson's *Atlas classica* which is an exact reprographic copy of it except that the small block of text 'Explanation' is moved from the top left hand side in Rennell to the right hand side in Wilkinson.

4.2.2 Spruner-Menke, Müller, Smith & Grove

The classical atlas produced by Spruner in 1850 and revised by Menke in 1865, known as Spruner-Menke, contained a double spread of pseudo-maps, with a modern

²⁰³ Rennell, *Geographical system*, p148.

²⁰⁴ Markham comments in the preface to the 1895 biography that at first he found it difficult to find materials, implying that Rennell's reputation—or at least knowledge of his work—had declined. But it is clear from the pages of the biography that during his lifetime at least Rennell was held in very high regard as a geographer on the Continent as well as in England, his work on the Greek geographers being as well known as the Map of Hindoostan.

²⁰⁵ Society for diffusion of Useful Knowledge, *The Harrow atlas of classical geography: selected from the maps published under the superintendence of the Society for the Diffusion of Useful Knowledge with index*. London. Stanford. 1857. The reference is to James Rennell, *The geographical system of Herodotos*.

map of ‘the world known to the Greeks and Romans’.²⁰⁶ Figure 4.2 is the pseudo-map for Herodotos.

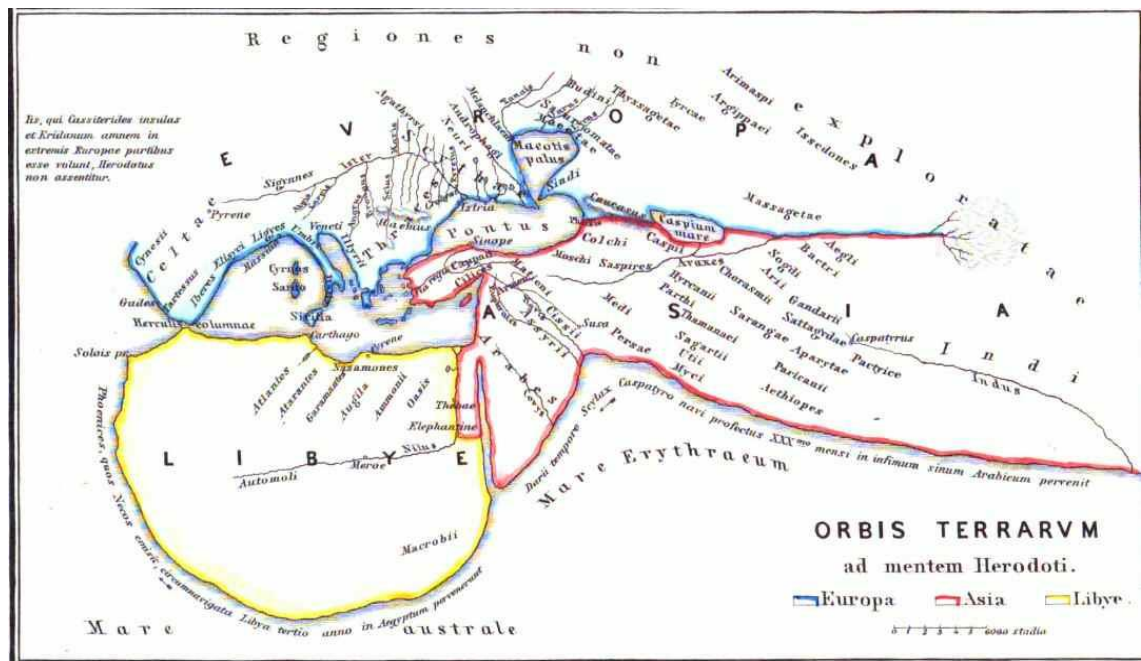


Fig. 4.2 The Spruner-Menke pseudo-map for Herodotos

The pseudo-maps are presented together on Plate 1: separate panels for Homer, Herodotos and Strabo occupy the left hand side. The explanatory text (pages 3 to 11) covers sources for the 31 map plates, but the text for the Herodotos map is brief: it simply states that the sources are Niebuhr’s writings and Bobrik’s *Geographie des Herodot.*²⁰⁷ However, one can see from the legends wrapped around ‘LIBYE’ and ‘ASIA’ and ‘Regiones non exploratae’ at the top of the map, all stating facts directly culled from Herodotos, how the mapmaker thinks of himself as directly mapping Herodotos’ geographical knowledge. On the right hand side are two panels, one contemporary cartography of the portion of Europe/Asia/Africa which was thought to be known to Ptolemy, the other a representation of Ptolemy’s knowledge (‘orbis

²⁰⁶ Karl Spruner and Theodor Menke, *Atlas antiquus*, Justus Perthes, Gotha, 1862? [accessed from Hathitrust Digital Library on 31/7/2015: <http://catalog.hathitrust.org/Record/009319117>].

²⁰⁷ Barthold Georg Niebuhr, *A dissertation on the geography of Herodotus, with a map. Researches into the history of the Scythians, Getae, and Sarmatians*. Translated from the German of B. G. Niebuhr. D. A. Talboys. Oxford. 1830. [Downloaded from <https://ia801409.us.archive.org/8/items/adissertationon01niebgoog/adissertationon01niebgoog.pdf> on 31/7/2015]; Hermann Bobrik, *Geographie des Herodot vorzugsweise aus dem Schriftsteller selbst dargestellt. Nebst einem Atlasse von zehn Karten*, Königsberg, August Wilhelm Unzer, 1838 [Accessed from <https://archive.org/stream/geographiedeshe00bobrgoog#page/n8/mode/1up>; the atlas not present in digitised copy and I have not seen it].

terrarum ad mentem Ptolemaei’).²⁰⁸ These two Ptolemy maps thus explicitly invite comparison of both cartography and geography.

The first graphic decision evident here is the difference in shape of the Herodotos map from the Hekataios representation (Bunbury’s) (figure 4.1, cf. figure 4.2). That single significant phrase of Herodotos’ ὡς ἀπὸ τόρνου dictates a roundel for ‘according to Hekataios’ maps and the same phrase tells us to make an Herodotos pseudo-map ‘not round’. The use of three primary colour springs out as the graphic language to communicate Herodotos’ idea of three continents with the crucial Europe-Asia boundary at the Phasis. The mapmaker puts the Libye-Asia boundary at the Nile because Herodotos calls the boundary of Egypt the mountain range ‘on the Arabian side’:

τῆ μὲν γὰρ τῆς Ἀραβίης ὄρος παρατέταται

For on the Arabian side a mountain range stretches

Hdt. 2.8.1

Labelling is a combination of names of groups and names of fixed features and cities, for example ‘automoli and Meroe’ along the upper Nile course. The overall title ‘Orbis terrarum ad mentem Herodoti’ shows the mapmaker’s intention is to represent Herodotos’ knowledge and thinking, though *orbis terrarum* as a peculiarly Roman term for the whole world is a little ironic.

Walter Goffart devotes several pages to the Spruner-Menke atlas, though he does not discuss the pseudo-maps specifically.²⁰⁹ On the atlas as a whole he admits that though its level of ‘scholarship, craftsmanship and art’ was very high (‘Its maps are on a noble scale and hand-colored; many are a pleasure to behold and consult’),²¹⁰ and was so appraised by other mapmakers, its actual influence on other mapmakers is difficult to assess: ‘Later atlases are more likely to bow to Spruner as a source than to reproduce its salient features.’²¹¹ What is in evidence here in Goffart’s discussion is

²⁰⁸ The maps are called ‘orbis terrarum Romanis et Graecis Ptolemaei tempore cognitus’ and ‘orbis terrarum ad mentem Ptolemaei’.

²⁰⁹ Goffart, *Historical atlases*, pp353–356.

²¹⁰ Goffart, *Historical atlases*, pp356.

²¹¹ Goffart, *Historical atlases*, p358.

the lack of a suitable metalanguage of graphics with which to make comparisons, a lack which affects even experts in the relevant period.

4.2.3 Müller

One of the most precise, productive and knowledgeable of pseudo-map makers, Charles Müller, stands neither at the beginning nor the end of the tradition of pseudo-maps but at the centre of gravity of their making. Müller referenced at least one earlier producer,²¹² but took the draughtsmanship and scholarship to a new height. Müller is still a slightly obscure figure in the history of classics though he produced not only an edition of Strabo but also the still relevant edition of the minor Greek geographers (published between 1855 and 1862).²¹³

The atlas which became known as ‘Smith and Grove’ is the culmination of Müller’s work on classical cartography.²¹⁴ Smith and Grove Plate 1, a very large double folio, is devoted to ‘the geographical systems of the ancients’ in 12 graphics, whose sources and rationale are described by Muller in the accompanying text.²¹⁵ Some of the details of the decision-making process involved in the making of Muller’s maps (perhaps all which can be known given that not all of John Murray’s records are preserved) are revealed by Richard Talbert who describes him as ‘talented yet self-effacing’ and ‘elusive’.²¹⁶ Talbert surmises that Murray had seen Müller’s maps intended for volume 1 of *Geographi Graeci Minores* of 1855 and as a result wished to engage him (in preference to A. K. Johnston who had expressed interest) for the production of the Smith and Grove atlas.²¹⁷

²¹² Just possibly the cartographer of the Spruner and Menke atlas of 1855?

²¹³ Charles (Karl) Muller (ed.), *Geographi Graeci minores*, G. Olms, Hildesheim. 1965 [1855-61]; Strabo. *Strabonis Geographica*, 2 vols, vol1 1953, Vol 2 (carrying the maps) 1858, Firmin Didot, Paris. Latin translation and introduction by Charles Muller.

²¹⁴ William Smith & George Grove (eds.), *An Atlas of ancient geography, biblical and classical to illustrate the Dictionary of the bible and the Classical Dictionaries. The biblical maps from recent surveys, and the classical maps drawn by Dr. Charles Muller*, John Murray, London, 1875.

²¹⁵ Specifically Hekataios, Ephorus, Homer, the geographer of Ravenna (roundels), Eratosthenes (rectangular map with graticule), Herodotos, Timosthenes (roundels), Pomponius Mela (oval maps), Strabo (rectangular map with graticule), and Ptolemy (map with graticule on his 2nd projection. William Smith & George Grove (eds.), *An Atlas of ancient geography, biblical and classical to illustrate the Dictionary of the bible and the Classical Dictionaries. The biblical maps from recent surveys, and the classical maps drawn by Dr. Charles Müller*, London, John Murray, 1875. Müller’s commentary on Plate 1 is on page 1.

²¹⁶ Richard Talbert, ‘Carl Müller (1813-1894), S.Jacobs, and the making of classical maps in Paris for John Murray’ *Imago Mundi* 46 (1994): 128–150 at 128–129.

²¹⁷ Talbert, ‘Carl Müller’, p130.

In his graphics for Smith and Grove Müller reproduces the Spruner and Menke ‘world according to Homer’ but adds his own sketch of Odysseus’ journey. He adds a substantial commentary giving his sources and reasoning for the set of pseudo-maps.²¹⁸ His Hekataios graphic is apparently a modified version of Klausen’s²¹⁹ to which he adds the Ister (Danube) ‘by conjecture’ from Herodotos. It is a roundel because Müller takes Herodotos’ comment in Book 4 about inaccurately round maps as including Hekataios, as most scholars do.²²⁰ The same Herodotean statement dictates an oval for the Herodotos map. A significant difference between Hekataios and Herodotos is the Europe / Asia border dispute: Hekataios considers the Tanais the border, Herodotos the Phasis. This, together with their different ideas of the Caspian Sea (Hekataios = open; Herodotos = closed) are the main visual facts which any pseudo-map maker must acknowledge. Herodotos’ choice of the Phasis as the border between Europe and Asia (which aligns with a line dividing the world in two) leads in Müller’s opinion to the axis of the Mediterranean along a NE-SW line.²²¹ In arriving at the Herodotos map, Müller also takes into account the statement at Book 2.33 of the *Histories* that ‘the mouths of the Istros, Sinope, erroneously supposed to be an isthmus of Asia Minor, Cilicia aspera and the mouths of the Nile lie in the same meridian’.²²²

Black notes that Gladstone’s sketch of Odysseus’ travels was the inspiration for the map in Johnston’s *School Atlas of Classical Geography* published in 1867.²²³

Alexander Keith Johnston was a member of a mapmaking family whose company, active in the mid-late nineteenth century produced many thematic and general atlases.²²⁴

²¹⁸ Commentary is on Pages 1–2 of Smith & Grove.

²¹⁹ Müller refers only to ‘Clausen’ which I conjecture is R.H. Klausen’s 1831 edition of the fragments of Hekataios and Skylax. Additional note: an examiner drew my attention to the fact that this edition is online at Archive.org; this online copy does not reproduce the foldout map, but another [at https://openlibrary.org/books/OL24628696M/Fragmenta_Scylacis_Caryandensis digitised from the University of Toronto Library copy, which has a handwritten accession number on the title page of ‘217031’ and a date ‘29:9.27’] does include the map. An inspection of the Müller and Klausen maps shows that ???.

²²⁰ See Edward Bunbury, *History of Ancient Geography, among the Greeks and Romans*, 2nd ed., London, 1883 (Dover 1959), pp144–5.

²²¹ Smith & Grove, *Atlas of ancient geography*, p1.

²²² Smith & Grove, *Atlas of ancient geography*, p2.

²²³ Black, *Maps and History*, p30 (but I have not been able to trace the particular work in which such a sketch appears).

²²⁴ See the entry ‘Johnston family and companies’ in Josephine French (ed.), *Tooleys Dictionary of mapmakers*. Revised Edition. E-J. 2001, pp447-8. I have not had access to the classical atlases.

4.2.4 Edward Bunbury

Edward Bunbury drafted ten maps covering the most important geographers from Homer to Ptolemy for his *History of Ancient Geography* (first edition 1883), ranging from a map of the wanderings of Odysseus (figure 4.3) to three maps illustrating Ptolemy. He noted in the Preface that he had made use of Müller's similar graphics for the Smith and Grove Atlas.

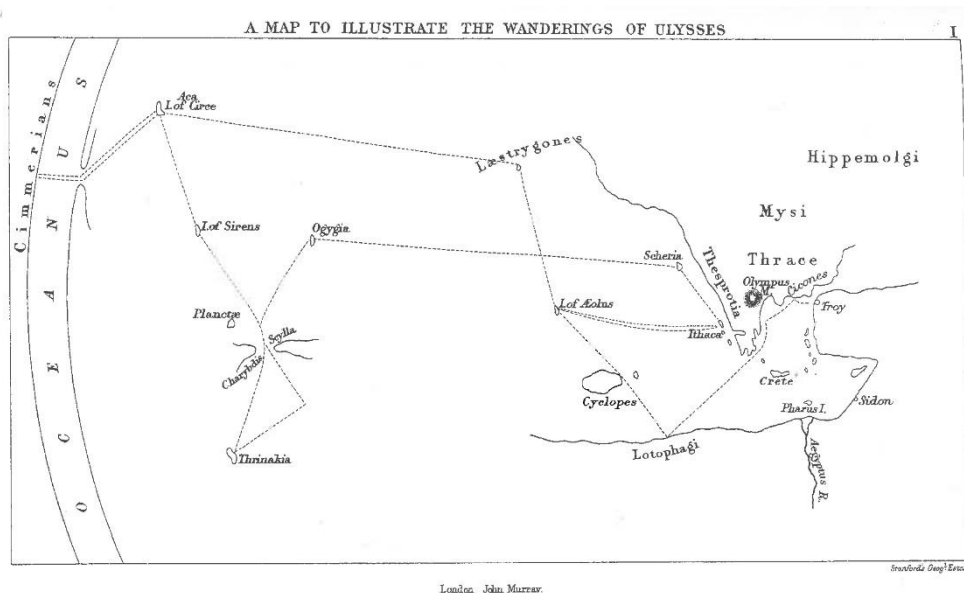


Fig. 4.3 Bunbury's Wanderings of Odysseus map

Bunbury's Odysseus map schematically shows only the outline of Homer's world rim represented by the River Oceanus encircling the whole world, with the outline of Greece and the Aegyptus river (the Nile), which together form a frame for showing the places of the wandering as dots and the order of visiting. This map is a schematic only of Odysseus' wanderings and therefore omits much in the way of other places which Homer shows consistent knowledge of, for example Euboia, with Lesbos, Psyra, Chios and Tenedos, places which Nestor refers to when giving an account to Telemakhos of his route immediately after leaving Troy (*Od.* 3.169–175). Bunbury discusses the beginning of Odysseus' voyage from Troy, calling the account 'as might be expected, clear and consistent' and has chosen to map only that, rather than a whole schema of an Homeric world view, though he discusses the matter.²²⁵

Bunbury's Herodotos map (figure 4.4) does not make the ἀκτῆ-ness of Libya very clear (though it is good for other things); compare it in this respect with an unannotated version which forms the small title-page vignette in Feix' edition (figure

²²⁵ Bunbury, *A History of Ancient Geography*, pp33–38, 73–84.

4.5) which does better. Bunbury drafted the ten maps, including the Herodotos map, himself, giving due warning about their interpretation:

With regard to the two maps attempting to represent the idea of the world as formed by Hecataeus and Herodotus, I have not deviated from the customary mode of representing the two continents of Europe and Asia and the Mediterranean Sea in accordance with their true position . . .

At the same time it must be freely admitted that the map of the world according to Hekataios is in great measure conjectural, for which reasons I have confined myself to a rough and general outline.²²⁶

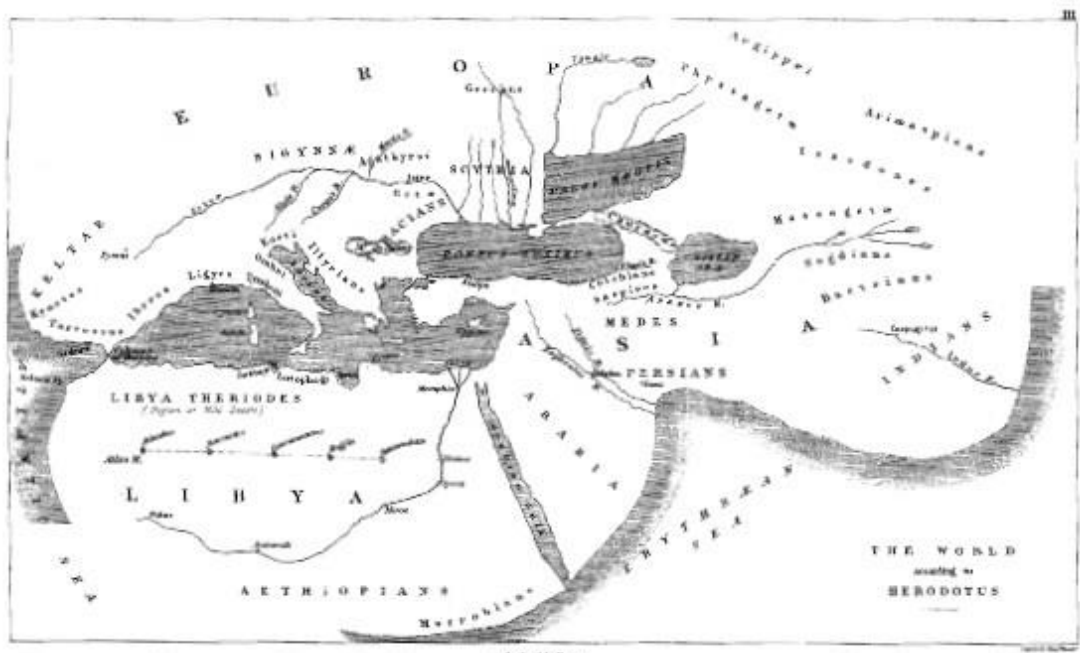


Fig. 4.4 Bunbury's Herodotos map²²⁷

The statements given above are the only notice Bunbury takes of his own maps. This must be either because he deems them transparent in meaning and therefore not requiring discussion, or (perhaps) that he deemed them of very minor importance.

²²⁶ Bunbury, *A History of Ancient Geography*. ppxxxv-xxxvi.

²²⁷ Edward Bunbury, *A History of ancient geography among the Greeks and Romans*, 2nd edn., London, Dover, 1959 [1883], map (drawn by Bunbury) vol. 1, facing p172.

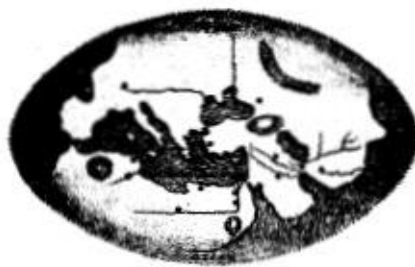


Fig. 4.5 Herodotos pseudo-map: the title page vignette from *Herodot Historien*, edited Josef Feix, Zurich, 1980

4.2.5 Myres and the two maps available to Herodotos

It was J. L. Myres' contention that Herodotos had maps available when he wrote the *Histories*.²²⁸ The argument, which is based entirely on the internal evidence of Herodotos' text, is set out in a long essay published in 1896. In that essay, the author asks a question distinctly different from the question which (we infer) nineteenth-century pseudo-maps are attempting to answer. The essay, illustrated with schematics of the theorised maps, though it was reprinted unchanged in his widely-known *Geographical History in Greek Lands* has been well cited but not very influential. The straight line which Herodotos knows is formed by the mouth of the Nile, with Cilicia, Sinope and the mouth of the Danube leads to an hypothesis (what Myres calls a 'postulate'), delicately expressed by him, that, given that he could not determine by direct means the upper course of the Nile, that its length was equal to the Danube.²²⁹ Herodotos includes a description of the geography of Skythia in Book 4.47-58, 82, 85-86 and 99-101 as part of his narrative of Darius' expedition of 525BC. He presents in these passages, as in the Egyptian *logos*, a serious visualisation of the shape of Skythia and the course of rivers and mountain ranges, and concludes with the firm statement that Skythia can be regarded as square (Ἔστι ὅν τῆς Σκυθικῆς ὡς ἐούσης τετραγώνου [4.101]). This becomes the schema known as the Skythian square by modern commentators, though not all have thought the delineation of topography leading up to that summary statement (4.99-100) perfectly intelligible. The real

²²⁸ John L. Myres, 'An attempt to reconstruct the maps used by Herodotos' *The Geographical Journal* 8.6 (1896): 605-29; reprinted unchanged in *Geographical history in Greek lands*, Oxford University Press, 1953.

²²⁹ Dahlmann calls it an 'unweighed preconception' which drives Herodotos' wish to draw the course of the Danube with the same bend as the (supposed) bend in the Nile; this 'fanciful theory' gained ground and 'luxuriated in his mind' and created the 'Scythian square' [4.101]. (Friedrich Dahlmann, *The life of Herodotos*, trans G V Cox, London, 1845). Compare Dahlmann's word 'hypothesis' (p65) with Myres' 'postulate' (p608). Dahlmann in general approves of Herodotos' methods and results and quarrels here merely with the particular geographic results. Compare Tozer's comment on Herodotos' assertion (inaccurate) that oases are spaced approx. 10 days' journey apart in a line that this is 'love of symmetry which is a characteristic of his mind asserting itself' (Henry Tozer, *A History of Ancient Geography*. Cambridge, 1897, p96)

problem is the inconsistency between the summary passage 4.99–101 which specifies the square – a square aligned NSEW with the Danube as western boundary – and the earlier passages in Book 4 which imply a Danube which flows East.²³⁰

Myres suggests that Herodotos had available to him two series of maps whose influence can be traced in his specifications of regions such as that given of the Skythian square.

Ἔστι ὧν τῆς Σκυθικῆς ὡς εἰσῆς τετραγώνου, τῶν δύο μερῶν
κατηκόντων ἐς θάλασσαν, πάντη ἴσον τό τε ἐς τὴν μεσόγαιαν φέρον καὶ
τὸ παρὰ τὴν θάλασσαν.

Therefore it is as if Skythia were a square, two of the parts (sides) going down to the sea, and wholly equal that [side] bearing [running alongside] the inland and that running alongside the sea

Hdt. 4.101.1

One series, called by Myres ‘the Ionian map’, is deduced mainly from the mission of Aristagoras (discussed in Chapter 3), and from various statements by Herodotos that he has in mind certain axes which we may take to be straight unless he specifically says they are not, as he does occasionally, for example at 4.21–22 in listing the peoples encountered, quoted below.

Τάναϊν δὲ ποταμὸν διαβάντι οὐκέτι Σκυθική, ἀλλ’ ἡ μὲν πρώτη τῶν
λαξίων Σαυροματέων ἐστὶ, οἱ ἐκ τοῦ μυχοῦ ἀρξάμενοι τῆς Μαιήτιδος
λίμνης νέμονται τὸ πρὸς βορρῆν ἄνεμον ἡμερῶν πεντεκαίδεκα ὁδόν,
πᾶσαν εἰσῆσαν ψιλῆν καὶ ἀγρίων καὶ ἡμέρων δενδρέων· ὑπεροικέουσι δὲ
τούτων δευτέρην λάξιν ἔχοντες Βουδῖνοι, γῆν νεμόμενοι πᾶσαν δασέαν
ὕλη παντοίη.

22. Βουδίνων δὲ κατύπερθε πρὸς βορρῆν ἐστὶ πρώτη μὲν ἔρημος ἐπ’
ἡμερῶν ἑπτὰ ὁδόν, μετὰ δὲ τὴν ἔρημον ἀποκλίνοντι μᾶλλον πρὸς
ἀπηνλιώτην ἄνεμον νέμονται Θυσσαγέται, ἔθνος πολλὸν καὶ ἴδιον·

²³⁰ W.W.How & J. Wells, *A commentary on Herodotus*, 2 vols., Oxford University Press. London, 1928, ad loc. and Appendix XIII pp434-437 on Herodotos’ Geography.

across the Tanais when it's no longer Scythian country ... first it's the Sauromatians ... then dwelling above are the Budini ... then above to the north some uninhabited country ... then *turning away somewhat towards the east* are the Thyssagetæ ...'

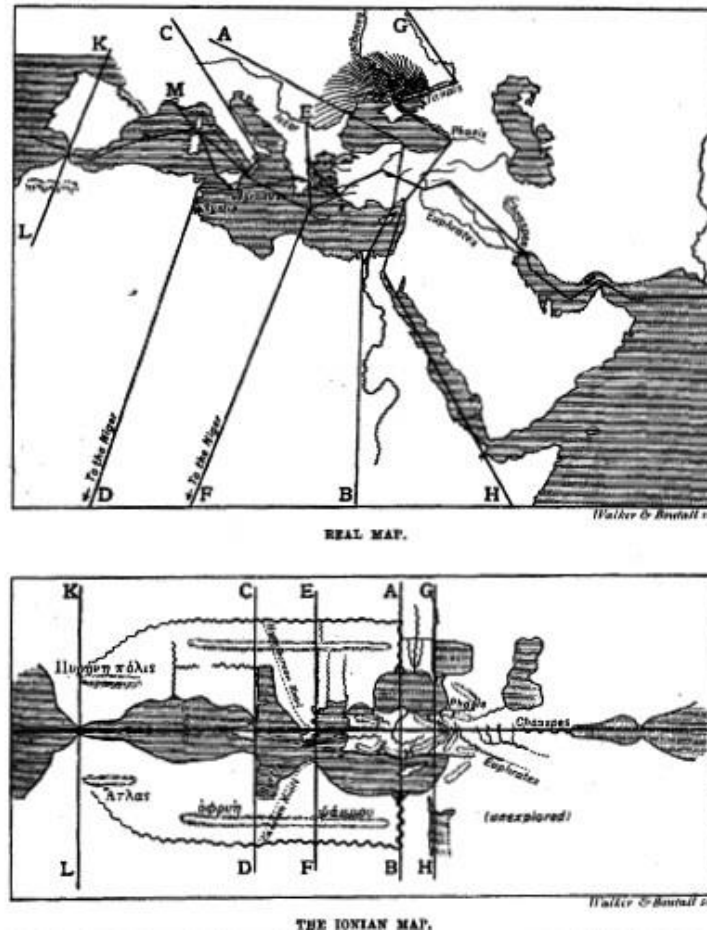


Fig. 4.6 Myres' Ionian map

This passage conveniently illustrates both the axes themselves and the recording of slight deviations from them. The critical axis A-B is deduced from a passage in Book 2 (the Egyptian logos).

ἡ δὲ Αἴγυπτος τῆς ὄρεινῆς Κιλικίης μάλιστα κη ἀντίη κέεται· [2] ἐνθεῦτεν δὲ ἐς Σινώπην τὴν ἐν τῷ Εὐξείνῳ πόντῳ πέντε ἡμερέων ἰθεὰ ὁδὸς εὐζώνῳ ἀνδρὶ· ἡ δὲ Σινώπη τῷ Ἰστροῦ ἐκδιδόντι ἐς θάλασσαν ἀντίον κέεται.

And Egypt in relation to the mountainous part of Cilicia lies approximately opposite; and from there to Sinope on the Black Sea is a straight journey of five days for an unburdened man; and Sinope in

relation to the mouth of the Ister [Danube] lies opposite.²³¹ *Hdt.*

2.34.1-2

We should note here that the imaginary line is specified from South to North. From these indications of straightness, direction and distance, Myres reconstructs Herodotos' version of land accessible from the Mediterranean.

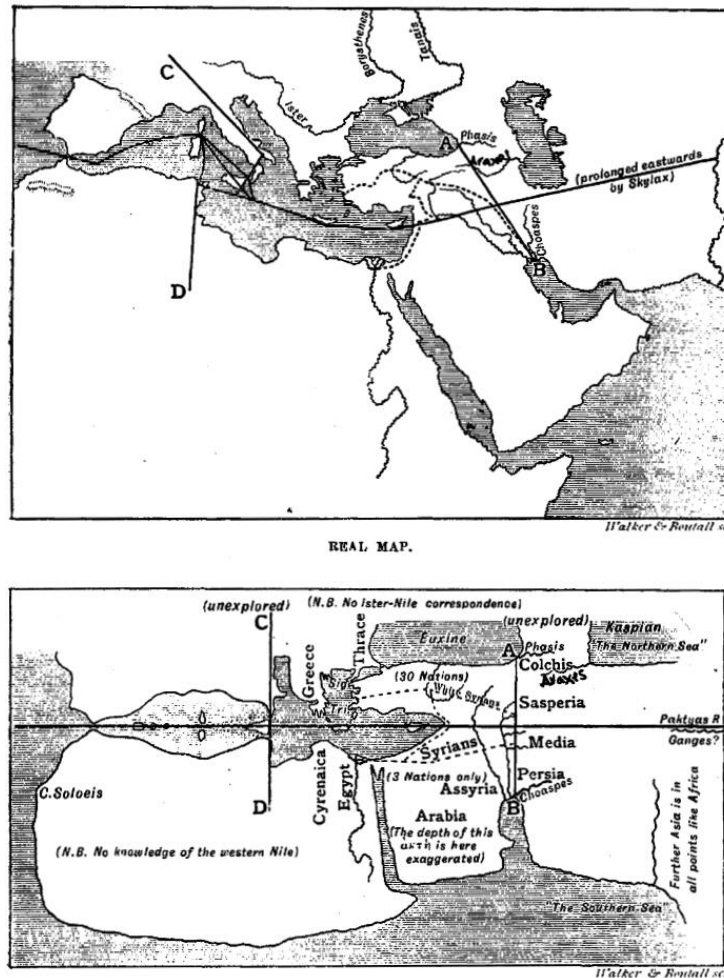


Fig. 4.7 Myres' Persian map

Summing up, Myres' graphics, reproduced as figures 4.6 and 4.7, show his ideas of Herodotos' map sources, from Ionian Greeks and from Persians respectively, juxtaposed in each case with a 'real', that is a modern, map. The first observation to be made about Myres' thesis in this essay is that which he has in common with other mappers of the Histories—his conclusions are based on taking Herodotos' geographical statements as a whole, a consistent collection. In addition to this we

²³¹ This A-B line is called a 'crude and quite erroneous attempt at a meridian' by A. B. Lloyd. But here we are concerned not with absolute accuracy so much as the implication for H's geographic descriptions. See A.B. Lloyd, *Herodotos Book II Commentary*, 3 vols, 1975–1988, Leiden, Brill, vol. 2, p146.

observe that Myres is doing two rather interesting things: one concerning history and the second concerning graphical communication.

The history question is announced rather clearly in the title of his essay: Myres is saying that he can see the maps—the actual graphic representations which Herodotos had—from the language which he (Herodotos) has used—and the language not of direct description but of implication only. From Herodotos' language Myres infers maps, from that language other scholars have inferred the opposite. The case is not to be decided on a single Yeah or Nay basis, and in any case the more interesting question is what is at stake in 'picture criticism'²³² or making words from pictures (Herodotos) or pictures from words (Myres). Experimental psychologists investigating spatial cognition regularly ask subjects to make sketch maps from a place description (room, campus, town) showing confidence that the transformation of visual~textual knowledge and the slippages which occur are revealing of spatial cognition. They discover among other things that our naïve knowledge tends to 'rectify' things in the environment.²³³

The second interesting thing Myres' 'attempt' offers is an experiment in graphical communication. This is perhaps so obvious as not to need stating: the difference between the pictures in each figure is demonstrated graphically by placing the 'real' map above and aligned exactly with the Herodotean reconstruction and having both carry corresponding lines. This format invites one to imagine the transform which, on Myres' hypothesis, needs to happen to change the 'real map' into one which might resemble Herodotos' map—a transform consisting of grasping the lines on the top map in each case and bending them so that the angles correspond to the bottom map. The axes on the bottom maps show how our naïve geographical knowledge tends to rectify directions and routes.²³⁴

²³² The term is used by Kari Kraus to refer to an historically-oriented critical practice and methodology (yet to be developed) which would be the equivalent of textual criticism (Kari Kraus, 'Picture criticism' in Neil Fraihat & Julia Flanders (eds.), *Cambridge companion to textual criticism*, Cambridge University Press, pp236–256; discussed further by me in the conclusion to this part, at the end of chapter 5.

²³³ See for example Barbara Tversky, 'Places: Points, planes, paths, and portions' in Emile van der Zee & Jon Slack (eds.), *Representing direction in language and space*, Oxford University Press, 2003, 132–143.

²³⁴ Discussed further in Chapter 6.

4.3 Twentieth century

Not very many years after Myres had read his paper to a rather bemused Royal Geographical Society in 1896²³⁵ Ellis Minns published a massive survey of information to date on the country of the Skythians and included in the book several hand drawn sketch maps to show Herodotos' idea of the region (figure 4.6).²³⁶

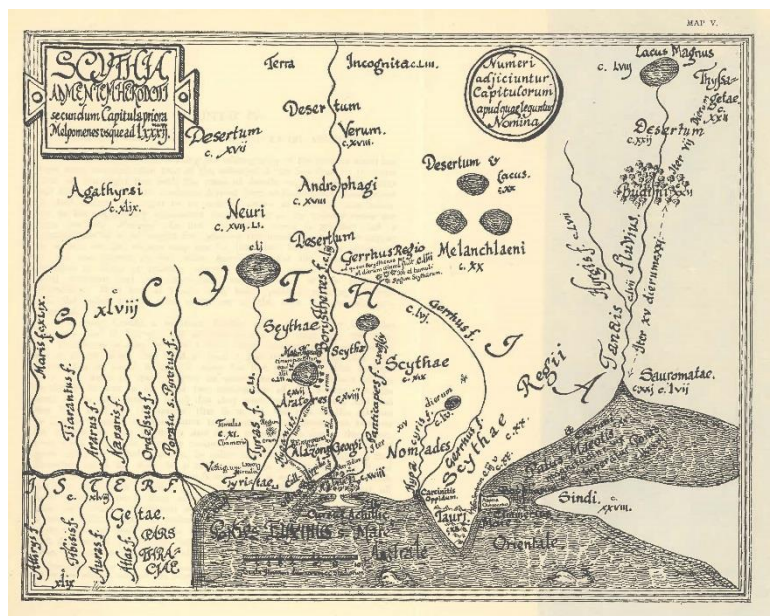


Fig. 4.8 Minns' Skythia according to Herodotos

Minns' map is interesting for its sense of mapmaking style (Latin for feature labels, fine hatching for water, flourished lettering, dolphins(?) in the water) and more importantly for the self-conscious documentation of features placed on the map itself in the form of text references from the *Histories*. Minns also has a more schematic map, though drawn with similar decoration, of 'Scythia Quadrata ad mentem Herodoti' (not reproduced here) in which he works out the square. Both maps have a scale, which is given in days' journey, as it is found in Herodotos' text, rather than converting to some modern measure. This is an important point demonstrating Minns' understanding of Herodotos' geographical presentation. These maps give the impression of being rather idiosyncratic creations and seem not to be very much influenced by the standard 'ad mentem Herodoti' maps of the nineteenth-century atlases (e.g. Smith and Grove) which were still current at this date. The decorative features Minns' map contrast strongly with his text:

²³⁵ At least on the part of W. G. Thorpe who comments 'So important and original a paper comes on one rather as a surprise' (Myres, 'Maps used by Herodotos', p630).

²³⁶ Ellis Minns, *Scythians and Greeks: A survey of ancient history and archaeology on the north coast of the Euxine from the Danube to the Caucasus*, Cambridge University Press, 1913 (map V facing page 34).

A whole sequence of ingenious investigators has endeavoured for instance to draw a map of Scythia according to Herodotus and the different results to which they have come prove that in this it is hopeless to seek more than the establishment of a few main facts.²³⁷

Minns' *ad mentem Herodoti* map must then be taken as his representation of 'a few main facts'.

Minns' map alone of the pseudo-maps I discuss demonstrates the 'expressionistic' aspect of 'making a personal statement' which is identified by Keates as one of the five 'artistic', or aesthetic, characteristics of maps as representations.²³⁸ In making an interpretation of the map maker's artistic or communicative intentions in relation to this map, we can point to the features of typography and drawing mentioned above, which obviously do not originate in Herodotus' text, and therefore must have some other communicative function. Aesthetic function is analysed by MacEachren as one of the types of connotation (as opposed to denotation) which all maps carry. Aesthetic function in particular encompasses an 'incitive connotation' type.²³⁹ 'Incitement' to do something is a strong form of expression, and MacEachren's discussion is necessarily confined to examples drawn from the very influential arguments for the (deceptive) power of maps made by Denis Wood and Mark Monmonier who focus on present day political and cultural effects of maps; however the incitive connotation can presumably be present in a map not aiming at the political arena, but at some other, in this case I think the scholarly.²⁴⁰ The additional signs, which do not appear

²³⁷ Minns, *Scythians and Greeks*, p26; and equally pragmatic: 'The mistake made by most writers is in striving to wrest the different geographical sections of book IV., composed at various times, from various sources and introduced in various connections into a seeming consistency with each other and with the modern map—generally to the unfair treatment of the modern map.' (p26)

²³⁸ S. J. Keates, 'The cartographic art' *New insights in cartographic communication. Cartographica. Monograph 31. Cartographica* 23(1): 37–43, quoted in MacEachren, *How maps work*, pp336–7.

²³⁹ MacEachren, *How maps work*, pp337, 348–349.

²⁴⁰ Denis Wood (*The power of maps*, London, Routledge, 1993) and Mark Monmonier (*How to lie with maps*, 2nd edn., Chicago University Press, 1996) were the most influential scholars in the 1980s and 1990s presenting an argument for the implicit communication of messages by maps which (they claim) had not been sufficiently taken account of in the theory of cartography. MacEachren (*How maps work*, p335) points out that Wright rather earlier clearly recognised the effect of choices made by cartographers not to present some information (J. K. Wright, 'Map makers are human: Comments on the subjective in maps' *Geographical Review* 32.4 (1942): 527–544, especially the pages on 'scientific integrity at pp528–530).

on his sketch map of a part of the region according to modern knowledge,²⁴¹ have the connotation of at one and the same time persuading the reader of the accuracy of his information part and drawing attention to the futility of seeking any more complete view in that they imitate the maps of an era when all maps were hand-drawn and decorated.

At exactly the same time as Minns's study, a very different affair in the way of Herodotos pseudo-maps appeared in Stéphane Gsell's volume of selections from the *Histories*. Gsell's map (figure 4.9)²⁴² is as much schematic as pseudo-map and is clearly directed to his main interest of illuminating the ancient history of north Africa.²⁴³

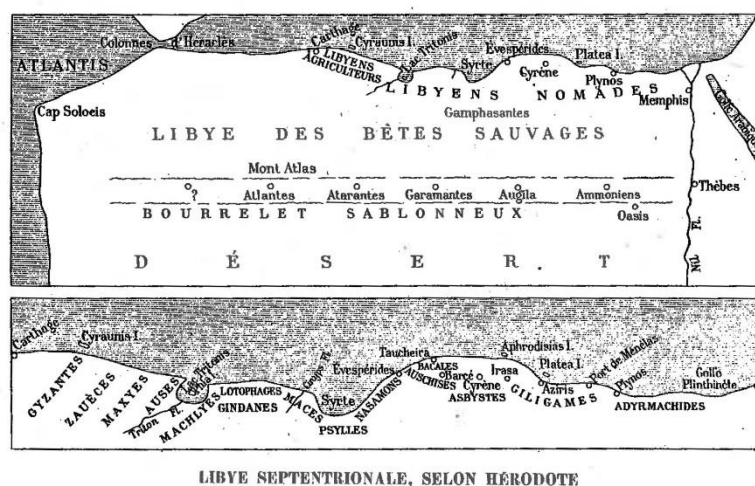


Fig. 4.9 Gsell's map of north Africa according to Herodotos

In fact the figure shows two maps, one a detail at larger scale than the other. They are schematic (perhaps) in showing the inland features along a straight line, true in a sense to Herodotos' description of tribes as occupying regions successively further to the west of the Nile at regular intervals of 10 days' journey:

ἐν δὲ τῇ ὄφρῦν ταύτῃ μάλιστα διὰ δέκα ἡμερέων ὁδοῦ ἄλός ἐστι τρύφεια
κατὰ χόνδρους μεγάλους ἐν κολωνοῖσι, καὶ ἐν κορυφῆσι ἐκάστου τοῦ

²⁴¹ Map III 'The Cimmerian Bosphorus and Taman Peninsula', facing p21 and maps on end papers.

²⁴² Stéphane Gsell, *Herodote, [&] Fragments d'Hecatee relatifs a la Libye*, Roma, "L'Erma" di Bretschneider, 1971 [1915], map on frontispiece.

²⁴³ Though trained as a Romanist (he had written his doctorate on the reign of Domitian), Gsell's career as an historian of Africa was set when he was appointed to a teaching post at the Ecole supérieure des lettres d'Alger (Étienne Michon, 'Éloge funèbre de M. Stéphane Gsell, membre de l'Académie' *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 76.1(1932): 7–13 at p9); his *Histoire ancienne de l'Afrique du Nord* was published in 8 volumes between 1920 and 1928.

κολωνοῦ ἀνακοντίζει ἐκ μέσου τοῦ ἀλὸς ὕδωρ ψυχρὸν καὶ γλυκὺ, περὶ δὲ αὐτὸν ἄνθρωποι οἰκέουσι ἔσχατοι πρὸς τῆς ἐρήμου καὶ ὑπὲρ τῆς θηριώδεος, πρῶτοι μὲν ἀπὸ Θηβέων διὰ δέκα ἡμερέων ὁδοῦ Ἀμμώνιοι, ἔχοντες τὸ ἶρὸν ἀπὸ τοῦ Θηβαιέος Διός *Hdt.* 4.181.2

On this ridge at about ten day intervals are mounds of salt of the coarse type heaped up in hills, and on the top of each hill there spurts from the middle of the salt mound water which is cool and fresh; and around each the remotest peoples dwell on the desert side and inland of the region of wild beasts; the first—at a ten-day journey from Thebes—are the Ammonians, who have a temple to Theban Zeus

Herodotos is actually being both accurate and vague at the same time—he simply fails to specify whether the successive positions occupied by tribes are a ten-day journey in a straight line or not.

The whole geographical description of Libya (4.168 to 4.185), in which the above passage occurs, is interesting for the light it throws on Herodotos' ability to visualise a region and on his order of describing. The arrangement of description for the description of Libya as a whole is: first the peoples along the coast proceeding west from Thebes (Οἰκέουσι δὲ κατὰ τάδε Λίβυες. ἀπ' Αἰγύπτου ἀρξάμενοι πρῶτοι Ἀδυρμαχίδαι Λιβύων κατοίκησθαι, 4.168), then, a brief notice of four different terrains (4.181.1), in order from the coast, (1) the coastal region, (2) the region of wild beasts, (3) the ridge of sand and (4) the desert; then commencing a new part of the description by proceeding west from Egypt (as before Herodotos begins the description of peoples dwelling along the ridge of sand (4.181.2)). That is, Herodotos has conceived a simple and manageable schema for metaphorically peopling the area: from north to south with named (topographic) regions and from east to west (or, in his terms, 'from Thebes') in a line (because he has namable 'points' of interest being the mounds)—the line being used twice. In the nineteenth century the tendency was to see the parts of the total description of Libya (4.168 to 4.199) as having different sources;²⁴⁴ this may be so, but there is no actual inconsistency in the information he gives which would make separate sources certain.²⁴⁵

²⁴⁴ Macan suggests a 'western (Italiot, Sikeliot) source' for 4.191–196, 199 and possibly an Egyptian source for the oases lines (4.181–185) and notes 'it must be remembered that Herodotus was not the

4.4 A continuing tradition?

The pseudo-map style has not quite disappeared as is shown by its use in the 2012 New Pauly supplementary volume of maps to illustrate several Greek writers including Herodotos (figure 4.10). A series of pseudo-maps also appear in Georgia Irby's recent article assessing the Greek cartographic tradition; but the series does not include one of Herodotos' knowledge.²⁴⁶

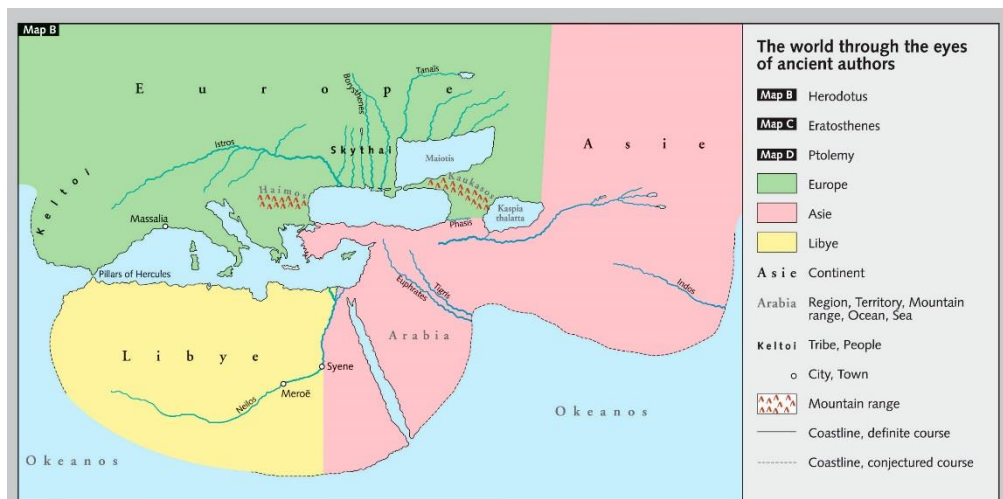


Fig. 4.10 New Pauly online Herodotos map²⁴⁷

When pseudo-maps are presented in atlases, especially historical atlases, we might expect to find historical context in particular elucidated. In fact though most attempt to illuminate the change in geographical knowledge only, stopping short of considering historical cartography. The problem of fitting classical atlases, a subset of historical atlases, into historical method was already recognised by William Hughes when he complained in 1840 that names from many periods were jumbled together

first author who described Libya in prose' (Reginald Macan, *Herodotus. The fourth, fifth and sixth books*, 2 vols, London, Macmillan, 1895, commentary at 4.168, pp 120–1.

²⁴⁵ The Garamantes are mentioned both at 4.174 and 4.183: at 4.174 they do not own weapons of war and have no idea how to defend themselves (οὔτε ὄπλον ἐκτέαται ἀρήιον οὐδὲν οὔτε ἀμύνεσθαι ἐπιστέαται) whereas at 4.183 they are certainly strong and successfully deal with salty soil to sow grain (ἔθνος μέγα ἰσχυρῶς, οἱ ἐπὶ τὸν ἅλα γῆν ἐπιφορέοντες οὕτω σπεύρουσι) and actually hunt cave-dwelling Ethiopians (οἱ Γαράμαντες δὴ οὔτοι τοὺς τρωγλοδύτας Αἰθίοπας θηρεύουσι τοῖσι τεθρίπποισι, 4.183.4). οὔτοι signals that Herodotos is aware he is describing two tribes under one name: Macan suggests that in fact the cave-dwelling Ethiopians of the second passage are the same people as the Garamantes of the first. (Macan, *Herodotus*, 4.183.4 ad loc. (p 133).

²⁴⁶ Irby, 'Mapping the World: Greek initiatives'; omission of an Herodotos reconstruction perhaps indicates that the author interprets Herodotos' attitude as one of contempt for maps?

²⁴⁷ Anne Wittke, Eckhart Olshausen & Richard Szydlak (eds.), *Brill's New Pauly Supplements I*, vol. 3, *Historical atlas of the ancient world*, [[media/bnps3/MBNPAM005.jpg](#)], 'The world through the eyes of ancient authors: Map B – Herodotus, copyright E. Olshausen after E.H. Bunbury, *A History of Ancient Geography* 1, 1879, pl. III, pp.172f.]

‘in such a manner as to leave in the mind of the student no distinct impression of the actual condition of the country at any one period’.²⁴⁸

The idea of a classical atlas as a special form is discussed by Clive Foss who analyses the types of information classical atlases should have.²⁴⁹ His 18-point list includes ‘The world as seen by the ancients’, preferably as a series to ‘reflect the geographical knowledge from archaic Greece through the Roman empire.’ An important point which emerges from this review of 12 atlases (from Kiepert 1902 to Talbert 1985) is that atlases tend to be publishers’ projects rather than scholars’.²⁵⁰ The same article offers a useful discussion of graphical elements and communicative success. The lack of relief or inadequate or confusing depiction of relief is an accusation levelled at all 12 atlases; and relief, whether by hatching, colour or contour lines is a publishers and printer’s choice. Foss expects a classical atlas to deal with history and topography and to illuminate their relationship, hence his severest criticism is reserved for inappropriate use (or absence) of graphical elements. He wants graphical density as well as accuracy and makes the important point that ‘partial information is perhaps worse than none’.²⁵¹

4.5 Summary

Maps, and especially when they are issued as bound atlases, are slow to gestation and publication and are likely to remain in use for many years. Readers from one generation to another must have been in the position of seeing the same productions to illustrate ‘ancient history’.

Even when presented in a work on historical cartography frequently no attempt is made to unpick the threads contributed by past mental geographies and past and present cartography. For example, a map in Charles Bricker’s *History of Cartography* has the caption “a 19th-century reconstruction of Eratosthenes’ world based on the reports of other ancient writers and on the few fragments of his own writings that are

²⁴⁸ W. Hughes, *The Illuminated Atlas of Scripture Geography*, London, 1840, p4. (Quoted in Black, *Maps and History*, p28).

²⁴⁹ Clive Foss, ‘Classical Atlases’ *CW* 87 (1987): 337–365.

²⁵⁰ As complex publishers’ projects they are reviewed in Richard Talbert, ‘Mapping the classical world: Major atlases and map Series 1872-1990’ *JRA* 5 (1992): 5-38.

²⁵¹ Foss, ‘Classical atlases’, p361.

left to us” but the author offers no further discussion of the map per se.²⁵² The map or ‘reconstruction’ is not placed in historical context beyond ‘the nineteenth century’, nor are the two competing cartographic contexts of nineteenth century AD and second century BC. acknowledged. It is significant that these graphics are placed first in the chronological order of telling in the book, at the place where ancient Greek cartography is discussed rather than at the chronological point of their invention in the nineteenth century: clearly signalling that they are stand-ins for a ‘lost’ Greek cartography. Several phrases in the caption are instructive as indicating how the map is to be interpreted, including: ‘The Greek scholar Eratosthenes, librarian at Alexandria, saw the known world this way.’²⁵³ In this comment Bricker is making a reference to the mental image which Eratosthenes might have had of the world, notwithstanding that the map was intended by its maker, Charles Müller, to be a literal attempt at reconstructing Eratosthenes’ world map from the discussion of it in Strabo.²⁵⁴

Pseudo-maps in the twentieth-century school atlases seem take their rise from Edward Bunbury’s *History of Ancient Geography*.²⁵⁵ Smith and Grove’s atlas, whose main intellectual input for the classical maps was from Charles Müller, was cannibalised for *Murray’s Small Classical Atlas* until 1967, representing a century of longevity, as Richard Talbert notes.²⁵⁶ The *Philip’s Atlas of World History* published in 1992, presents no pseudo-maps in the main atlas but the editors (or perhaps the publisher) supplied as an iconic frontispiece “The Western hemisphere as it was known or imagined at the end of the sixteenth century”, a graphic of the same sort as the

²⁵² Charles Bricker, *A History of cartography: 2500 years of maps and mapmakers*, London, Thames and Hudson, 1969, [Maps displayed by R V Tooley], map on p13. It is in fact a facsimile reproduction of Charles Müller’s Eratosthenes map (without attribution) first published in his edition of Strabo in 1858 (Charles Müller, *Strabonis Geographica*, 2 vols, vol. 1 1853, vol. 2 (carrying the maps), Paris, Firmin Didot, 1858) and reused by him in the Smith and Grove historical atlas of 1875 (William Smith & George Grove, *An Atlas of ancient geography, biblical & classical: to illustrate the Dictionary of the Bible and the classical dictionaries*, London, John Murray, 1875. (I have established the fact that it is a facsimile by inspection of the cited editions.)

²⁵³ Bricker, *History of cartography*, p13.

²⁵⁴ Another example of a map reproduced outside its original context acquiring a new meaning is the statement by the editor of one modern facsimile edition of Ptolemy’s *Geography* that: ‘the maps reproduced in this volume are important because they represent the sum total of Classical geographical knowledge, and also because they exercised an extraordinary influence on later geographical writings’ (Ptolemy, *Cosmographia Tabulae*, Wigston, Leic., 1990, with introduction by Lelio Pagani [this is a facsimile edition of the 15th century Codex Lat. V F.32 in the National library, Naples], ppiv–v.) showing that the distinction between two incompatible cartographic contexts is not always clearly recognised.

²⁵⁵ See the comment by W. H. Stahl on the frequency of reproduction of Bunbury’s ‘valuable maps’ in the Preface to the Dover Edition (Bunbury, *History of ancient geography*, pviii).

²⁵⁶ Richard Talbert, ‘Mapping the classical world: Major atlases and map series 1872–1990’ *JRA* 5 (1992):5–38.

pseudo-maps we have been considering.²⁵⁷ Talbert's own, specifically classical, atlas which offers to 'the high school student and the undergraduate a reasonably comprehensive, up-to-date and scholarly coverage of classical history down to the time of Constantine',²⁵⁸ includes two maps to show the 'known or probable locations of the main places referred to by Homer'.²⁵⁹ These are executed on base maps of modern cartography so do not function as pseudo-maps, but the even more recent New Pauly—which even though it is in English certainly cannot be regarded as intended for a general reader—has pseudo-maps.

Many pseudo-maps are linked in a form of 'attribution tradition': that is, that each creator was aware of similar previous productions. Edward Bunbury, for example, refers to the representations (maps of Odysseus' wanderings) which are 'generally inserted in all treatises on ancient geography' – in a note in small print below the list of maps in his *History of Ancient Geography*, giving his own reasons for using them.²⁶⁰ Talboys Wheeler refers in a similar way to 'previous geographers, including Ukert, Niebuhr, Bobrik, and almost every writer on Herodotean geography' as constructing maps 'according to the imperfect data supplied by Herodotus himself',²⁶¹ he then branches out with a schematic form of his own. Even when there is no attribution tradition explicitly acknowledged by an author, it is sometimes possible to identify instances of re-use of pseudo-maps—where they can be verified by inspection as reprographic copies.

Original drawers of pseudo-maps such as Charles Müller were familiar with the texts and had no need to query the graphical meaning outside a map paradigm. Müller's maps—created, as we have seen, as historical reconstructions—utilise perforce cartographic conventions for which there is no evidence; they fall therefore somewhere between historical cartography and historical geography in that they not only show extent of territory supposed to be known but also the way in which it was supposed to be known. His maps especially use strong colour, fine lines, text labels on lines and areas, lines which have firm orientation and lines which are wavy and

²⁵⁷ R. I. Moore, Bernard Wasserstein & Mark Greengrass (eds.), *Philip's atlas of world history*, London, Philip's, 1992.

²⁵⁸ Richard Talbert (ed.), *Atlas of classical history*, London, 1985, Preface [unnumbered pages].

²⁵⁹ *ibid*, p 8 (map p7 'Mainland Greece in the Homeric Poems' by Falconer after R. Hope Simpson and map p9 'The Homeric World' by J. D. Falconer).

²⁶⁰ Bunbury, *History of ancient geography*, pxxxiii.

²⁶¹ J. Talboys Wheeler, *The geography of Herodotus*, London, 1854, px.

they have a graticule imposed. These are signs we are used to interpreting on modern maps, the authority for which comes from modern maps, not from the fragments and testimonia of Eratosthenes. The reason Muller's maps, especially, continued to be reproduced was that they are beautiful objects: familiar in being coloured, numbered, labelled in a familiar way, at the same time exotic: who now thinks of the world as leaf-shaped?

Oswald Dilke had commented in 1987 on the desirability of re-plotting maps from Ptolemy's coordinates as an exercise in historical cartography, noting that it was one rarely performed by historians of cartography, with the purpose of 'decipher[ing] the cartographic image of the known world held by the Greek and Roman map users'.²⁶² The challenge was met by Berggren and Jones (both historians of mathematics), among others, in their edition: they place the re-plottings beside modern sketch maps of the same regions.²⁶³ The bareness of these maps demonstrates the approximateness of all coastlines and is in striking contrast with the density of imagery of the Renaissance editions (the Rome Ptolemy for example).

Christian Jacob touches on the issue of the status of re-created maps of Herodotus' world in a single statement in *The Sovereign Map*:

Stevenson clearly enough offers us the paradigm of an activity of cartographic reconstruction on the basis of bits of description enclosed in a text and his would be the only glorious name to emerge from the genealogy of scholars trying to create fictive worlds and imaginary maps, relying, for example, on the reading of Homer, Hesiod, Herodotus, and others.²⁶⁴

In a book in which Jacob follows very many paths with expansive creativity and detail this statement is oddly brief and perhaps deliberately dismissive. However, if I

²⁶² O. A. W. Dilke, 'The culmination of Greek Cartography in Ptolemy' in Harley & Woodward, Volume 1, 1987, pp177-200, at p191n74.

²⁶³ J. L. Berggren & Alexander Jones, *Ptolemy's Geography: An annotated translation of the theoretical chapters*, Princeton, Princeton University Press, 2000 with maps 1 to 8b on pp129–140. Note however that Berggren and Jones' interpretation of Ptolemy's projections is not uncontroversial (p.c. Vladimero Valerio, to whom I am very grateful for generous advice given by email on what to look for in understanding ancient cartography).

²⁶⁴ Christian Jacob, *The sovereign map, Theoretical approaches in cartography throughout history*, trans. Tom Conley, University of Chicago Press, 2006, p283.

am right in thinking that the statement quoted does refer to pseudo-maps such as those I have been discussing, it places them unequivocally in a class of ‘fictive’ maps. Jacob has immediately before this statement contemplated the situation of R. L. Stevenson in being obliged to reproduce his own hand-drawn map of *Treasure Island* for an illustrated edition when his original manuscript map had been lost. Stevenson’s situation, as told by himself and retailed by Jacob, is certainly poignant:

It is one thing to draw a map at random, set a scale at one corner of it at a venture, and write up a story to the measurements. It is quite another to have to examine a whole book, make an inventory of all the allusions contained in it, and, with a pair of compasses, painfully design a map to suit the data. I did it [. . .] But somehow it was never *Treasure Island* to me.²⁶⁵

It is also a little strange: why was the abstraction of map data by rereading alone so necessary when what Stevenson was recreating was a map he had himself drawn in the first place? A map, moreover, which, according at least to Jacob’s argument, had been pored over post-creation, handled, examined (and presumably absorbed) in all its detail? In such a situation one might expect some visual memory to come to the surface to aid him as he laboriously and in duty bound to the publisher recreated his own previous fictive map. That visual memory should have functioned as a strong aid and mitigator of the paralysing drudgery of rereading his own text.

I can think of two possible reasons for the unreality of Stevenson’s situation as presented in Jacob’s narrative: either some data has slipped out of the Jacob / Stevenson telling, or the cause of Stevenson’s alienation from his map was an aesthetic one. In the first scenario we have to assume that Stevenson was not after all so familiar with the original map, subsequently lost, as to have even the power of thinking that he could redraw and progressively correct by reference to visual memory. He did not really know the map so did indeed have to recreate it by reference to its reflection in the text. The second scenario supposes Jacob’s interpretation right. Stevenson was deeply familiar with the content of the original map so that his pain at having to recreate it was pain not actually from the labour of

²⁶⁵ R. L. Stevenson, ‘My first book: *Treasure Island*’, *Idler Magazine: An illustrated monthly*, (1894.August): 3–11, at p10, quoted in Jacob, *Sovereign Map*, p283.

text rereading but from a sense of loss of the artefact itself. He had a feeling that any second-creation map must be counterfeit.

4.5.1 The hermeneutic problem

Although pseudo-maps fulfil the function of being an aid to our understanding in the twenty-first century, they have an inbuilt hermeneutic problem in that they have a dual nature, requiring of a reader that he interpret a base geographic schema with which he is not familiar, as well as interpret map symbols and signs. This dual nature arises because on the one hand pseudo-maps are illustrations of past maps, asserting that they present what Herodotos, for example, would have drawn, and in this function they are a retrospective cartography; and on the other hand they are a graphical aid to a modern reader of a Greek text, using a—presumably current and familiar—semiotic convention to convey their message. All maps function as complex semiotic objects, but it is only recently that this recognition has begun to affect scholarship in the history of cartography, which previously had been frozen in the empiricist paradigm:²⁶⁶ a map told us something, and told us what it told us. A useful analogy offered by Christian Jacob; in his words, a map is ‘transparent’ and any map artefact works like a film: ‘like the screen on to which the film is projected, a map vanishes behind the information it conveys’.²⁶⁷ The semiotic approach is a new and fruitful area of research²⁶⁸ from which we may expect new light to be thrown on pseudo-maps.

²⁶⁶ For a critique of empiricist understandings of cartography and its history see Matthew Edney, ‘Cartography without Progress: Reinterpreting the Nature and Historical Development of Mapmaking’ *Cartographica* 30.2/3 (1993): 54–67.

²⁶⁷ Christian Jacob ‘Toward a cultural history of cartography’ *Imago Mundi* 48 (1996): 191–198, p191.

²⁶⁸ See for example, Emanuela Casti, ‘Towards a theory of interpretation: Cartographic semiosis’ *Cartographica* 40.3 (2003): 1–16.

Chapter 5

Schematic Representations

5.1 Schematic history

In this chapter I discuss some schematic representations of spatial knowledge of Homer and Herodotos.

I have suggested that a change from map like forms to graphics occurred in the period covered by this brief survey. The development however is not uniform, so this chapter begins not with modern diagram but with a schematic drawn, or perhaps copied, by a sixth-century AD writer. The *Christian topography of Cosmas Indicopleustes*, ‘proverbial among the curiosities of literature and of thought’²⁶⁹ was the spring board for a 1937 study by W. A. Heidel, *The Frame of the Ancient Greek Maps* which itself has become almost as proverbial among modern students of ancient Greek mapping. Whether we regard the diagram as of the sixth century BC or of the fifth century AD Heidel / Cosmas as the earliest diagram chronologically would stand at the beginning of this chapter for another reason—Heidel’s text is a discussion of the diagram. Heidel proposed that map-making began in Greece with the Ionian thinkers of the sixth century, that the maps they made were well-known, including to Herodotos, and that they took a form radically different from the one which replaced it: Eratosthenes’ cartography based on astronomical data.²⁷⁰

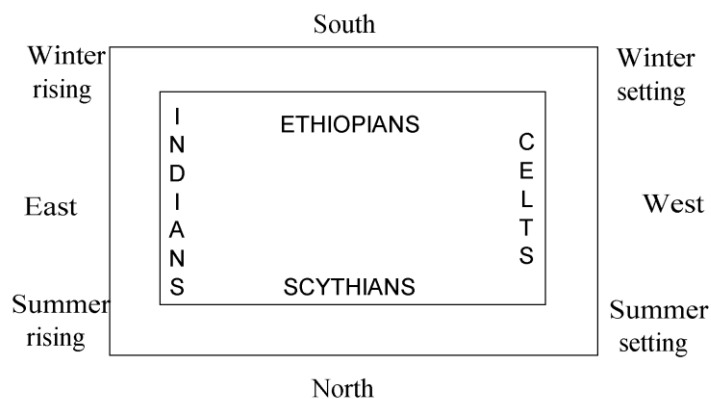


Fig. 5.1 Parallelogram of Ephorus

(Reproduced from Heidel, *Frame of the ancient Greek Maps*, figure 2)

²⁶⁹ J.W. McCrindle, *The Christian topography of Cosmas, an Egyptian monk*, trans. and edited, London, Hakluyt Society, 1897 with the map (parallelogram) at p74; ‘proverbial’ comment in Raymond Beazley, *The dawn of modern geography*, New York, Smith, 1949, p41.

²⁷⁰ W.A. Heidel, *The frame of the ancient Greek maps*, New York, Arno Press, 1976 [1937].

Heidel's study is important for its focus on an integrated reading of sixth, fifth and fourth-century texts and fragments to establish a piece of graphic history. Although Heidel is doing something of the same thing as the makers of the pseudo-maps, his reading of the texts is more subtle and also starts from a somewhat different position. He begins, as remarked, with the fact of the diagram (figure 5.1) preserved in Cosmas' text of the sixth century AD, and the assumption that the drawing therein preserves quite accurately a graphic representation by Ephoros;²⁷¹ he then looks for evidence in the writers who preceded Ephoros that such a 'frame' was commonly understood by them.

Heidel traces the 'frame of the Greek map' and the theoretical model which lay behind ideas of the extent of the world between the sixth century and the fourth century to show that there existed a long tradition going back to Aeschylus of a conception of the world bounded to N E W S: essentially a parallelogram. The parallelogram expresses North South East and West as limits - places beyond which other peoples lived or other conditions obtained. Heidel presents the the reality of the diagram as a proper representation of the conception. It is the presence of the diagram in this very late work which makes Heidel so confident of his reconstruction of ancient Greek thought: the parallelogram as an early construction is a matter of 'absolute certainty'.²⁷² In spite of the masterly marshalling of evidence to show that the 'frame' was the common, and the only, conception in the sixth to fourth century BC Heidel never directly addresses the issue of whether Herodotos (among others) was looking at such a frame.

5.2 Nineteenth century

Barthold Niebuhr wrote the *Dissertation on the geography of Herodotus* in 1812, not very long after the first edition of Rennell's *Geographical system of Herodotus* was published, and apparently also furnished it with a pseudo-map.²⁷³ But apart from his

²⁷¹ As Cosmas' text explicitly claims: 'This Ephorus is an old writer, philosopher and historian. Ephorus both in his text and by means of his sketch . . .' (McCrinkle, *The Christian topography*, p74).

²⁷² Heidel, *Frame*, p16. It is interesting that this diagram is the only one in the whole of Jacoby.

²⁷³ Barthold Georg Niebuhr, *A dissertation on the geography of Herodotus, with a map [&] Researches into the history of the Scythians, Getae, and Sarmatians*, translated from the German of B. G. Niebuhr, Oxford, D. A. Talboys, 1830 [downloaded from <https://ia801409.us.archive.org/8/items/adissertationon01niebgoog/adissertationon01niebgoog.pdf>]. Though the title page advertises it with a map and Niebuhr refers to 'my map' on pages 24 & 30 (as distinct from the diagram on page 25), no map is present in the digitised copy and I have been unable to source one online.

pseudo-map, he also used a diagram (figure 5.2) to try to show the force of the very interesting mode of describing area used by Herodotos at 4.37–4.40.

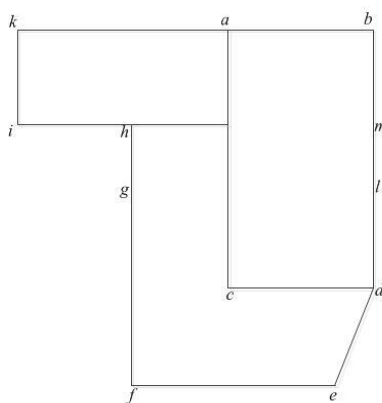


Fig. 5.2 Niebuhr's diagram of the two ἄκτῃ

Niebuhr has taken the southern ἄκτῃ (l e f g) as overlapping 'the space from sea to sea inhabited by the Colchians, Saspirians, Medes, and Persians' (which we could call the main space):²⁷⁴

Πέρσαι οἰκέουσι κατήκοντες ἐπὶ τὴν νοτιὴν θάλασσαν τὴν Ἐρυθρὴν
καλεομένην, τούτων δὲ ὑπεροικέουσι πρὸς βορρῆην ἄνεμον Μῆδοι,
Μήδων δὲ Σάσπειρες, Σασπειρῶν δὲ Κόλχοι κατήκοντες ἐπὶ τὴν βορρῆην
θάλασσαν *Hdt.* 4.37.1

The Persians have settled near the southern sea, called the Red sea, and dwelling above them toward the north wind are the Medes, and above the Medes the Saspeires, and above the Saspeires the Colchians on the northern sea.

In the same period that Charles Müller was drawing pseudo-maps some quite different graphics were drawn by Talboys Wheeler for his *Geography of Herodotos* published in 1854. Wheeler, objecting strongly to distorted maps to represent Herodotos' ideas, offers instead his own 'historical map diagrams' which use straight lines to generalise the actual shape of large regions such as the Peloponnese (figure 5.3).²⁷⁵ Wheeler claims these as a novelty, and to my knowledge they certainly were.²⁷⁶

²⁷⁴ Niebuhr, *Dissertation*, p25.

²⁷⁵ J. Talboys Wheeler, *The geography of Herodotos, developed, explained and illustrated from modern researches and discoveries*, London, Longman, Brown, Green & Longmans, 1854.

²⁷⁶ Wheeler, *Geography of Herodotos*, pix.

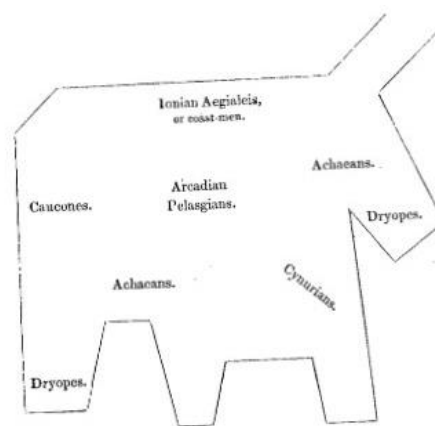


Fig 5.3 Wheeler's Peloponnese

The generalised shape provides a platform to show placement of the peoples and geographic features which Herodotus names in order. Wheeler's drawings thus abstract away the elements of an anachronistic cartography to allow Herodotus' actual statements which are about peoples contained in or 'holding' regions to be represented visually. Wheeler explains his motivation:

The object of the accompanying work is to present the student with a full development and explanation of the Geography of Herodotus; and at the same time to enable the general reader to survey the ancient world at one of the most important periods in its history. Accordingly, in the first place, all the geographical notices and allusions throughout Herodotus have been brought together and digested into one continuous system; and secondly such descriptions and illustrations have been borrowed from modern geography, as would correct his errors, reconcile his contradictions, explain his obscurities, and enable us to identify ancient sites with modern localities.²⁷⁷

This statement makes clear that Wheeler is attempting two things: to read Herodotus' geographical knowledge as a consistent 'system' and to 'reconcile' it with modern knowledge. Although he speaks of a system of geographical knowledge in the same way in which Rennell does, he complains that Rennell has not in fact made a 'system' of Herodotus' knowledge as he 'omits the geography of Europe and Asiatic Greece, Macedonia, Thrace, Aegypt, Aethiopia, and the isles of the Aegean'.²⁷⁸ He credits

²⁷⁷ Wheeler, *Geography of Herodotus*, pv.

²⁷⁸ Wheeler, *Geography of Herodotus*, pvi.

Bobrik with making an ‘admirable arrangement’ of geographical references but he is ‘of little use’ because he goes no further and does not attempt to ‘reconcile them with modern geography’²⁷⁹—indeed this is Wheeler’s project.

5.3 Agathe Thornton’s scheme of the plain

We now jump forward to the late twentieth century and Agathe Thornton’s diagram of movements over the plain in the *Iliad*. The diagram (reproduced as figure 5.4), is carefully labelled by the author ‘NB this is a helpful schema not an exact map’.²⁸⁰

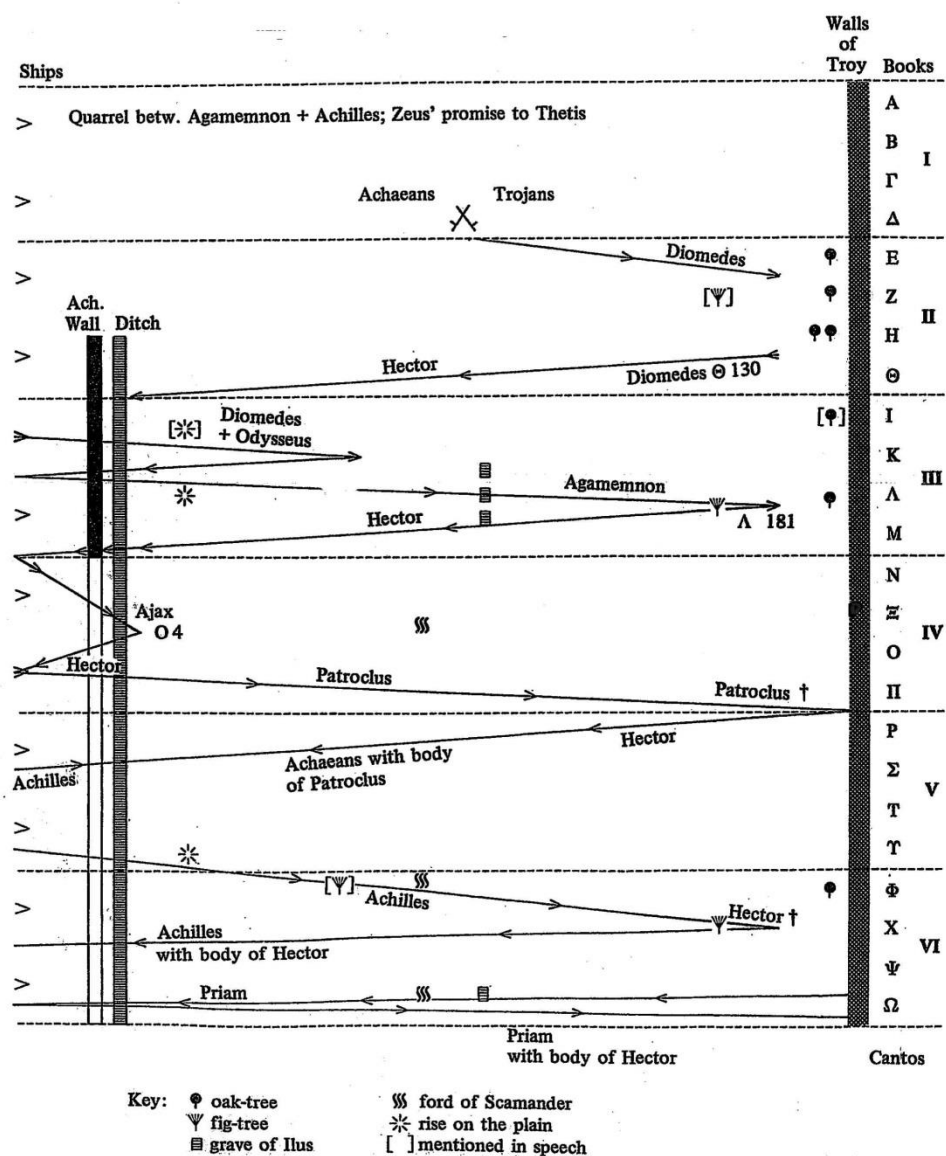


Fig. 5.4 Thornton’s diagram of movements over the plain in the *Iliad*
(Reproduced from *Homer’s Iliad: Its composition and the motif of supplication*, Göttingen, 1984, p50)

²⁷⁹ Wheeler, *Geography of Herodotus*, pvii.

²⁸⁰ Agathe Thornton, *Homer’s Iliad: Its composition and the motif of supplication*, Göttingen, Vandenhoeck & Ruprecht, 1984. Diagram on page 50.

Thornton does more than map a series of place references across the whole of the *Iliad*. She detects how the ‘plan’ (the word used deliberately I assume in the title of the chapter and within the text) of the *Iliad* is shaped by those places. Just as a map ‘unfurls in space’ (Denis Wood’s expression again), a recitation of the *Iliad* unfurls in time, so Thornton’s chart is also a time chart. Of course it is explicitly so, as one sees by the right hand side annotation in terms of Book numbers. Thornton however analyses the unfurling time structure by ‘cantos’, which are indicated in the chart by horizontal lines. What Thornton is arguing, expressed succinctly by the diagram, is how the structure of the *Iliad* is balanced on twin axes of space and time.

The author’s graphic choices include the progression of time from top to bottom (rather than bottom to top). Thornton speaks of ‘distribution of content of his story’²⁸¹ and this is what the canto structure, discovered by J. A. Davison, means – enabling reasonably uniform-length performances in the time of the conjectured single sitting.²⁸² Thornton’s investigation shows how the spatial structure both complements and validates the time structure. She speaks of the poet working ‘towards an escalation’²⁸³ so that it is possible that the direction of cantos on the diagram was indeed intended to represent this aspect of her argument.

With Thornton’s diagram we are clearly out of the realm of diagrams which are intended to recreate a graphic known to Homer or any ancient graphic. Her diagram of ‘Movements on the plain’ is offered as ‘helpful’ – a signal word directed at a modern reader in the process of visualisation of the *Iliad*’s story events. All Thornton’s point references can be verified in the text.

5.4 Hartog’s Herodotos

By the late twentieth century Herodotos’ view tends to be shown schematically. Figure 5.5 shows Francois Hartog’s scheme. It bears more resemblance to the older maps than to Wheeler’s in that Hartog cannot forbear to show the coastlines of Africa and Europe with wavy lines. Hartog addresses the objection of Herodotos at Book 1 to Homer’s imagined northern peoples simply by adding question marks. Hartog’s separate graphic of Skythia, which also influences that area on the main Herodotos graphic, is purely schematic: because Herodotos described it as square. Hartog’s map

²⁸¹ Thornton, *Iliad*, p58.

²⁸² Thornton, *Iliad*, pp46-7 with notes.

²⁸³ Thornton, *Iliad*, p59.

– and when things have got to this point we instinctively jib slightly at calling it a map – clearly tries to make a graphic say no more than the words in the text, reducing the shaded area in figure 3.1. Most of the line work is dotted, appropriating the common meaning of uncertainty for a dotted line : “I do not know whether this line should be here or not”.

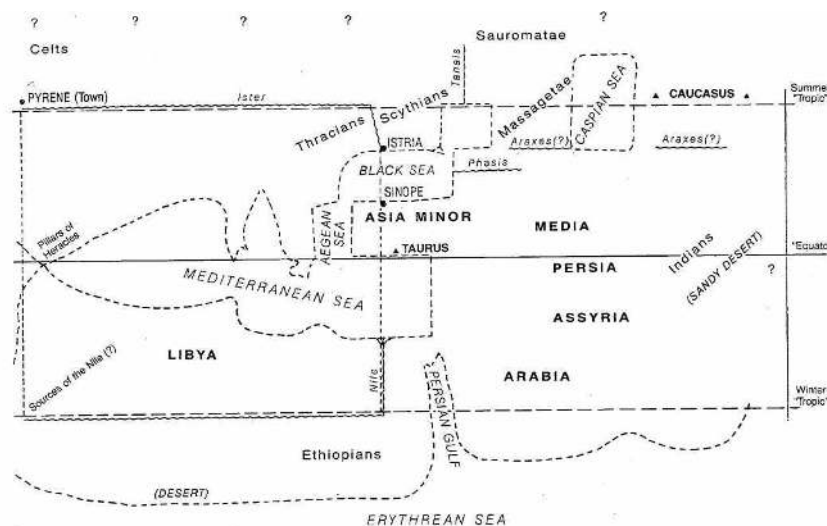


Fig 5.5 Hartog's Herodotos

5.5 HESTIA network maps

The Hestia project, conceived by Elton Barker creates—or allows the creation of—not so much maps as network diagrams, online and dynamically as well as other visualisations including timelines.²⁸⁴ As most digital projects must be, Hestia is ‘a work of many hands’ as John Unsworth comments in some remarks on the difference between cooperation and collaboration introducing a forum for digital hermeneutics:

The computer provides us with the ability to keep track of enormous amounts of information, to sort and select that information rapidly and in many different ways, and to uncover in reams of mute data the aesthetically and intellectually apprehensible patterns on which understanding depends.²⁸⁵

²⁸⁴ Elton Barker, Stefan Boukarovski & Christopher Pelling ‘Mapping an ancient historian in a digital age: The Herodotus Encoded Space-Text-Image Archive (HESTIA)’ *Leeds International Classical Studies* 9.1 (2010) (<http://www.leeds.ac.uk/classics/lics/>). The project site at <http://hestia.open.ac.uk/hestia/>.

²⁸⁵ John Unsworth, ‘Creating Digital Resources: the Work of Many Hands’ <http://people.lis.illinois.edu/~unsworth/drh97.html> (accessed 16/2/2012)

One ‘output’—or outcome—of Hestia will be to make readers of the *Histories* into users of Herodotos’ data,²⁸⁶ and the apprehensible patterns presumably depends on a reader’s / user’s existing familiarity with the Mediterranean as shown on a Google map (with modern placenames) as well as the reverberations of the network lines and circles / blobs. The timeline is calibrated to the time of the text rather than the fabula because that is the only time capturable for placenames, at least in their raw, scalar form. The designers of Hestia point out that this is a limitation²⁸⁷ though more nuanced network maps are possible in the future.²⁸⁸ The distinct difference between Hestia visualisations and the pseudo maps of the last chapter, or indeed the schematics of this chapter (with the exception of Jenny Strauss Clay to be discussed in the next section) is precisely that there are multiples of the former. I loosely described Hestia diagrams above as ‘dynamic’ because a computer user has the illusion of being in control of their instantaneous generation, but since the data—Herodotos’ text—is fixed this is only an illusion. However if a user chose to generate all the possible diagrams even in the current state of placenames and a crude count statistic only²⁸⁹ even a vague knowledge of combinatorics and memory of placenames on the page tells us that it would amount to the number of words in the *Histories*,²⁹⁰ that is, equivalent in complexity to a reader.

5.6 Jenny Strauss Clay’s position of combatants graphics

One of the ways of grasping the original audience experience of the Homeric poems is to abstract the distinct types of scientific knowledge from them – on the assumption that the abstracted knowledge will be unlike the full poems in timelessness and placelessness. Interpreters like Paolo Vivante may understand the poems without a new vocabulary²⁹¹ but for the rest of us some new situated firmly in their own modern context may be helpful. A very recent study which takes the latter road is *Homer’s Trojan Theatre* by Jenny Strauss Clay which invokes a combination of old metaphors of the theatre and new metaphors of cognitive science.

²⁸⁶ The basic instructions include ‘Your GE application will then open with the text of Herodotus automatically uploaded and geo-located, meaning that you will be able to view and search all the places that the historian mentions and find out what he has to say about them.’ <http://hestia.open.ac.uk/the-digital-text/> (accessed 20/4/2014).

²⁸⁷ Barker et al., ‘Mapping an ancient historian in a digital age’, p22.

²⁸⁸ Barker et al., ‘Mapping an ancient historian’, p23.

²⁸⁹ What Barker et al., ‘Mapping an ancient historian in a digital age’ call a ‘quick and dirty map’ (p24).

²⁹⁰ The number of words in the *Histories* is 189,489 as supplied by TLG at <http://stephanus.tlg.uci.edu>.

²⁹¹ I am thinking of his extraordinarily engaging essay ‘On the representation of nature and reality in Homer’ *Arion* 5.2 (1966): 149-190.

In a study of heroes' movements on the plain of Troy in the *Iliad* Clay makes reference to all three themes articulated in the introduction to this thesis:

Let me make clear from the very start that in what follows I am not concerned with the “real” geography or [in] mapping the *Iliad*'s battles onto the plain below Hissarlik, a task countless scholars, beginning with Heinrich Schliemann, have undertaken, defending Homer's verisimilitude and the poem's historical and topographical accuracy.²⁹²

By eschewing the ‘verisimilitude’ path Clay clearly acknowledges it as an alternative, one, as she says, not barren of interest but not relevant to ‘understanding’ of the poem. Rather than adding to the identifier school, in *Homer's Trojan Theatre* Clay takes up the more recent thread in Homeric space-related exegesis, the linguistic one. She argues that Homer's presentation of the plain of Troy is consistent as a space throughout the ‘battle books’ of the *Iliad*. This is in spite of their length (nearly 6000 verses²⁹³) and the complexity of movements expressed and implied and the presence of other, non-spatial, information, that all the references to movement and location of Greeks and Trojans are consistent with a single schema for a real space. Strauss Clay further argues, as illustrated in her title, that the spatial references must be read as meaningful and necessary because they form an armature for the narration: an armature which was formed from a visualisation by the poet: his theatre.

Clay adds visuals to her argument in two forms: the view over the battlefield²⁹⁴ and a web site, published before the book, showing the positions of individual combatants and demonstrating how their movements can be deduced logically from the poet's mention of their position at different points in the battle narrative.²⁹⁵ The web site is a clickable animation of the movement of the heroes over the plain coordinated with the relevant line of text.

²⁹² Jenny Strauss Clay, *Homer's Trojan theatre*, Cambridge University Press, 2011.

²⁹³ The number of numbered verses in books 11–18 is 5669 (David Munro & Thomas Allen (eds.), *Homeri Opera*, Editio Tertia, 1920) .

²⁹⁴ Clay, *Theatre*, p104 figure 4.

²⁹⁵ <http://www.homerstrojantheater.org/interface/> Labels default to off but should be turned on to make the diagram intelligible. The Note box to the right of the text gives a summary of the movements as diagrammed. (Note a slip at verse 16.87 where the note should read ‘Achilleus instructs Patroklos to drive the Trojans from the ships, but to return before attacking Troy.’)

Although the substantive argument of the book is linguistic, the author appeals to an overarching metaphor of ‘theatre’ which sometimes seems a duplicate explanation. As she explains in the Introduction, the word is intended to evoke several meanings or contexts: its continuing use as a word describing scenes of actual or intended warfare, its current use as a setting for a performance and ‘somewhat anachronistically’ its use to refer to a mnemonic system – ‘the theatre of memory’.²⁹⁶ Although the word itself – and by her rehearsal and reuse Clay shows it is a dense word – is perhaps what gives the book its unity and its pith, it also detracts from her own very straightforward and sound technique – that of careful attention to Homer’s language – stemming from a determined assumption of classical hermeneutics that what the poet says probably in fact does make sense:

one must assume that the battle scenes made some kind of sense to the poet’s audience (who must have enjoyed even what strikes us as their *longueurs*) and that we can retrieve that sense through attentive reconstruction.²⁹⁷

The attentive reconstruction consists in two key points: proper interpretation of the aspectual nature of the past tenses; and identifying a schema of left / centre / right (“always from the poet’s point of view”²⁹⁸) which is used consistently in the narration of the battle books. The website provides a ‘proof’ of Clay’s argument in a software sense but also a visualisation sense. If a certain Trojan meets a certain Greek at, say, the left, they must be known to be on the left, or have had the possibility of getting there previously, otherwise the argument fails.

The analysis of the left-centre-right axis begins with the observation that at 12.87–107 ‘Hector ... divides his forces into five columns’²⁹⁹ and that though the significance of these verses is lost on most commentators they are in fact crucial to understanding the movements throughout books 11–18.³⁰⁰ The five columns are specified by the names of the three leaders for each, the chief being (1) Hector, (2)

²⁹⁶ Clay, *Theatre*, p2.

²⁹⁷ Clay, *Theatre*, p53.

²⁹⁸ Clay, *Theatre*, p60.

²⁹⁹ Clay, *Theatre*, p60.

³⁰⁰ Clay, *Theatre*, pp60–61.

Paris, (3) Helenus, (4) Aeneas, (5) Sarpedon, and this is the way Clay presents them on the page (p60) because that is the order in which the poet lists them; however her point is that the Trojan groups are arranged rather as:

<u>on left</u>	<u>on left</u>	<u>on left</u>	<u>centre</u>	<u>on right</u>
Aineas	Helenos	Paris	Hektor	Sarpedon
Archelochus	Deiphobos	Alkathoos	Poulydamas	Glaukos
Acamas	Asius	Agenor	Kebriones	Asteropaios

So far as it goes Clay's demonstration is sound—her argument is one of the logic of movement about a real (not necessarily actual) place—a place in which the movements described can or could take place. So the logic of description in this case is a particular point of view offered by the poet as from the Greek ships and camp looking toward Troy. Since this is maintained throughout the battle books interpretation of 'on the left' 'on the right' 'in the centre' are linguistically clear and logistically important; that is, it is Clay's contention that the linguistic cues create a schema governing the whole of the third day of battle. This alone (i.e., independent of any other evidence) shows that they do not arise from separate descriptive pieces. Her argument, though, relies on the (perfectly valid) observation that the poet had gestures as well as words at his command:

live performance can facilitate the transmission of complex narrative movements, not only through verbal devices such as deixis, but also through exploiting gesture and vocal intonation.³⁰¹

The logic of Clay's argument requires that gesture and intonation not contradict placement in the schema of left – centre – right; this is not a fact which can be recovered now except in these logical terms.³⁰² In terms of recovery of the whole poetic performance Clay admits that her argument assumes an 'attentive audience' and one 'attuned to the conventions and verbal cues of battlefield descriptions'.³⁰³ The shared visualisation set up by the combination of verbal and visual cues which

³⁰¹ Clay, *Theatre*, p55.

³⁰² One might imagine in fact that occasionally rhapsodes did do 'incorrect' performances in this sense. One imagines in that case that their audience must have come away with a vague sense of dissatisfaction.

³⁰³ Clay, *Theatre*, p55.

Clay analyses is the thing which we are trying to recover. On this argument, though, the visualisation shared by the poet with his contemporaneous audience is not the same visualisation which the written record of his poem shares with us as modern readers. Although the intention of this exegesis, as for any other of the *Iliad*, is to ‘understand’ the purport of the poem, it is as well to remember that the induced visualisations may be simply different artefacts. This is where the new work by cognitive scientists comes in.

The focus of the first part of *Homer’s Trojan Theatre* is in establishing the logical availability of a visualisation. The final chapter takes up the work in cognitive science and linguistics which has formed a new thread in Homeric studies in the last decade or two. Clay wants to show that her attention to spatial language is consistent with recent formulations of the function of spatial language and spatial cognition. She discusses in particular the ‘map’ versus ‘hodological’ knowledge distinction and points out that the word ‘hodological’ was coined by the psychologist K. Lewin in 1934 who theorised a difference between hodological and cartographic space stemming from his own experience and observation. There is no necessary development from ‘hodological’ to ‘cartographic’ space:

It bears emphasising that the hodological conception of space (i.e. from the perspective of a traveller) has nothing primitive about it nor is it limited to oral traditions. Neither literacy nor even the dissemination of cartography has suppressed it.³⁰⁴

In this she is probably reacting to certain simplifications which have appeared in the literature which applies twentieth-century theory to classical texts, by which the terms ‘cartographic’ and ‘hodological’ space have been used as opposed ideas implying two modes of perceiving the same space.³⁰⁵ But Clay rightly rejects this as too simplistic even for a single text. She finds a better parallel to the *Iliad*’s presentation of space in the foundational work of Kevin Lynch. Lynch discovered that rather than conceptualising and recalling all metric properties of a space, people observe only some features and fit them into a topological form rather than a map-like one.

³⁰⁴ Clay, *Theatre*, p98.

³⁰⁵ See, for example, the remarks in Kai Brodersen, ‘Review Article: Mapping in the Ancient world’, *JRS* 94 (2004):183–190.

After considering the Greek forms which create the ‘narrative space’³⁰⁶ Clay asks the second critical question: ‘can the poet successfully convey his mental map of a landscape to his audience so that his auditors can share in his visualisation?’³⁰⁷ Apart from invoking Lynch’s study and some studies corroborating the separating effect (i.e. of hodological from cartographic perspectives), including the ‘classic’ study by Linde and Labov,³⁰⁸ Clay offers an analysis of movements of Achilles ‘as a test case of the interpretation of the mental landscape of the *Iliad*.’³⁰⁹ She finds, for example, that the Scamander, ‘which has thus far played only a minor role, now takes centre stage’³¹⁰ – it is a landmark in Lynch’s sense of a selectively described set of features: ‘the poet has dramatically marked this crucial point in in Achilles’ advance’ with the meaning that Scamander is a ‘boundary defining Trojan territory’.³¹¹

The consistent set of visualisations Clay claims for the poet are reminiscent, she suggests, of the ancient technique of mnemonic loci credited to the fifth-century Simonides of Ceos by Cicero and Quintilian.;³¹² and Simonides may have borrowed the idea from the scenes of the slaughter of the suitors at the end of the *Odyssey* where ‘the hierarchy of deaths in the massacre corresponds to the seating arrangements of the suitors in the great hall of Odysseus’ palace’.³¹³ If so, Simonides applied it well and perhaps should get some credit for the idea as it sits well with his other ‘methodological improvements’.³¹⁴

The order of presentation in this short book is philological data and commentary, followed by cognitive science theory; and this, I think, tells us something about its springs. The spatial terms identified in the Greek text and especially the significance of the use of imperfect vs aorist (pluperfect), are used to persuade us of the force and relevance of the theatre metaphor and demonstrate the reality of the visualisation which Homer used. Only then does the author discuss some of the recent findings of

³⁰⁶ Clay, *Theatre*, p53.

³⁰⁷ Clay, *Theatre*, p101.

³⁰⁸ Clay, *Theatre*, p99, n9.

³⁰⁹ Clay, *Theatre*, p106.

³¹⁰ Clay, *Theatre*, p107.

³¹¹ Clay, *Theatre*, p107 and footnote 33.

³¹² Clay, *Theatre*, p1 10.

³¹³ Clay, *Theatre*, p114.

³¹⁴ Clay, *Theatre*, p100 n35.

cognitive science which propose certain common ways of conceptualising space. That work introduces more technical terms than ‘hodological’ and ‘cartographic’ space and more detailed models of the processes of spatial understanding and description, but by postponing the discussion Clay avoids the need to deploy those terms. Her presentation of Homer’s ‘Trojan theatre’ in fact relies on philological tools to re-point and correct existing exegesis.

Part II: Summary

In this part I have assembled representative examples of the graphics—some maplike, some schematic—which have been used to illustrate the spatial concepts of the Homeric poems and Herodotos' *Histories*.

The strong and varied tradition of illustration of Homer's and Herodotos's conceptions of space which these examples show may simply be prompted by the absence of secure knowledge of ancient Greek mapping itself.³¹⁵ If there had been maps, or any other type of graphic, surviving in any quantity from ancient Greece they could have been considered alongside the texts and no doubt text and map would have illuminated the other in special and distinctive ways.³¹⁶ Such contemporary graphic forms would have acted to inhibit the luxuriant imagination of the reproductions and re-imaginings. If a sampling of graphics had survived (and the textual survivals are, after all, only a sampling of the totality of Greek literature) the historiographic questions would then be different. They would concern such issues as whether early maps proved or disproved autopsy by Homer; and whether Herodotos had based his figures for the length of the Egyptian seaboard on a map; and many other questions of detail or concept. As it is, scholars interested in the geographic and spatial ideas of Homer and Herodotus and who wanted to have those ideas in graphic form have had to do the best they could for the most part with re-creations.

The tradition of visual commentary forms only a small part of the totality of historiographical questions concerning space in Homer and Herodotos which can be asked—but it must be regarded as an important one if we are indeed in a 'graphic age' as has been thought. The mere fact that there has been a change from pseudo-maps as illustrations to schemas such as Thornton's and Hartog's to Clay's Web 2.0 animations and the Hestia dynamic network maps, argues a case for considering the graphic forms in their own right; that is, more than one classicist has considered it worthwhile to try to draw the spatial ideas of Homer and Herodotos.

³¹⁵ Cf. The remarks made by Richard Talbert, 'Greek and Roman mapping: Twenty-first century perspectives' in Richard J. A. Talbert & Richard Unger, *Cartography in antiquity and the Middle Ages: Fresh perspectives, new methods*, Leiden, Brill, 2008, pp1–27.

³¹⁶ On the interplay of text and graphic see Reviel Netz, *The shaping of deduction in Greek mathematics*, Cambridge University Press, 1999, chapters 1 & 2.

Challenging R. G. Collingwood's argument that the proper aim of historiography is the reconstitution of a state of mind, art historian Michael Baxandall has an interesting comment on the possibility of an historical understanding of visual objects:

It is not a reconstituted state of mind, then, but a relation between the object and its circumstances.³¹⁷

In this remark, which occurs in *Patterns of Intention*, a ground-breaking study of the 'causes' of a work of art as a graphic form Baxandall, is speaking of some of the highest works of finished art,³¹⁸ and it may be thought that these paintings are denser than the graphics we are considering here—denser in imagery, in painterly effect, and in historical and cultural importance—and therefore that their history is not relevant to graphics intended merely to illustrate some particular concept within a narrow range of material from a fairly short period. But, as I claimed at the beginning of this part, the history of (mechanical) illustration has received so little attention—and that little not properly focused on how graphics aid thinking—that it will at least be a move in the right direction to consider these alongside culturally more important works. In *Patterns of Intention* Baxandall calls attention to the multifarious influences which cause the existence of a particular work of art. The influences, causes, or 'circumstances' of any graphic form include what its creator has seen as well as what he or she knows for other reasons.

In the course of developing his new methodology of art criticism Baxandall refers several times to a painting as showing, and as meant to show, a process;³¹⁹ and the reason he prefers the circumstances of creation of an art work to a 'reconstituted state of mind' as the proper aim of an inferential art criticism is to be true to the particulars and the details of the object itself. The art critic's account should preferably contain

³¹⁷ Michael Baxandall, *Patterns of intention: On the historical explanation of pictures*, New Haven, Yale University Press, 1985, p42.

³¹⁸ Piero della Francesca's *Baptism of Christ*, Chardin's *A Lady Taking Tea* and Picasso's *Portrait of Kahnweiler*.

³¹⁹ For example Baxandall, *Patterns of intention*, p.75.

‘good gritty bits of causal circumstance’³²⁰—in order that what is written about the object be ‘critically useful and historically sustainable.’³²¹

An example in our case of Baxandall’s ‘good gritty bits of causal circumstance’ is a circumstance which is on / not on Herodotos maps: the depiction of Asia Minor as a peninsula more or less nip-waisted. The reference is to Herodotos’ statement that a ‘well-girt man’ (μηκος ὁδοῦ εὐζώνῳ ἀνδρὶ πέντε ἡμέραι ἀναισιμοῦνται 1.72.3) could cross the peninsula (from north to south) in 5 days’ travel. Hartog ignored this in his diagram (figure 5.5), whereas many pseudo-map makers, such as Bunbury (figure 4.4), try to give effect to it. The statement, which all commentaries notice particularly,³²² as well as all the histories of ancient geography, is (to continue Baxandall’s metaphor) noticed because it is gritty to us as an obvious error in the width of land Herodotos calls an ἀκτὴ (4.38.1–2) so that it is easy to give effect to graphically.

I introduced the term pseudo-map for maps of the ‘world according to’ Herodotos / Homer to emphasise that they are visualisations of information in the poems and the *Histories* via modern cartographic conventions. They fall between historical cartography (analysis of the maps of a past era) and historicising cartography (recreation of an assumed previous cartography) in that they not only show extent of territory supposed to be known but also suggest the way in which it was supposed to be known: a point which becomes clear from considering critiques of mapmaking and map use and the denotations and connotations of the sign systems of maps—understandings which have come out of the ‘new cartography’ since the 1980s. And a still further hermeneutic problem, I argue, for the historical recreations considered here concerns their semiotic function as wholes (the map as sign rather than the signs on maps) and the question of whether they represent the actual cartography (being surrogates for it) or the mental cartography. I use Jeremy Black’s term ‘manifested mental maps’, but point out that it is not always clear whether what is being manifested is the mental map of Herodotos or Homer or the mental map of a modern, which creates a past-present conundrum which seems to be a concomitant of the act

³²⁰ Baxandall, *Patterns of intention*, p74.

³²¹ Baxandall, *Patterns of intention*, p75.

³²² Asheri, *Commentary on Herodotus*, ad loc. “The data and the calculation are wrong.” How & Wells, *Commentary on Herodotus*, ad loc. (who say perhaps Herodotos’ informant was giving a five-day distance from Sinope ‘to the northern boundary of the Persian Cilicia’ but H. thought he was referring to the southern boundary..

of creating a graphic from a text. And this lack of acknowledged interpretation and lack of integration with written histories has led to the ineffectiveness of pseudo-maps as tellers of the historiography of space in the poems and the *Histories*.

The difference between the eighteenth- and nineteenth-century pseudo-maps and the more recent schematics is that the former take form to enable the reader or viewer to recognise shapes of continents and regions and put them in relation to each other, whereas the schematics appeal to quite other ideas, some directly obtained from the text, others from other areas of the surrounding circumstances of the creator. This represents a significant re-reading—always providing graphic forms are not ignored but are integrated into mainstream commentary.

The schematic form of representation has been more prominent in recent scholarship. It avoids the past-present conundrum by avoiding any comparison with, or resemblance to, extant cartography. It also thereby avoids any existing interpretive paradigm. Schematics of this type tend to be unique to their drawer, though they may have a bare minimum of graphic conventions in common with each other. They use only graphic primitives: orientation (with a frequent convention top of page = north), arrow = movement, solid line = certainty (of boundary, of movement), dotted line = uncertainty.

The characteristic of both pseudo-maps and schematic forms is that most make a ‘system’ of Homer’s and Herodotos’ knowledge. This is partly an artefact of the act of abstracting information belonging to the single semantic domain of space, and partly the result of the act of presentation in graphic form.

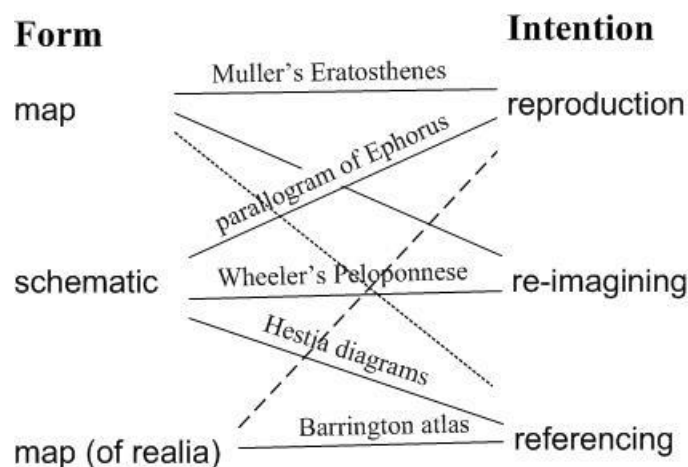
Niebuhr in 1812 clearly recognised that Herodotos’ spatial data points were sparse and that they had to be interpreted before they would yield even the general shape of his knowledge. He also clearly recognised ambiguity in some of Herodotos’ statements when taken as a whole ‘system’. His labelled diagram (discussed in section 5.2, figure 5.2) tries to capture this ambiguity / uncertainty. Niebuhr also drew a map of Herodotos’ whole geographic knowledge.³²³ Wheeler built on Niebuhr’s

³²³ Which was perhaps of the pseudo-map form but which unfortunately I have not seen as it is announced on the title page and mentioned in Niebuhr’s text but is not reproduced in the electronic copy.

work but eschewed pseudo-maps altogether in favour of his own highly schematic forms. In the same generation Müller, who was interested in the whole tradition of Greek geography and cartography, brought pseudo-maps to a new height of detail and scholarship, not hesitating to make them graphically as close as possible to a modern map. Given the opportunity to publish in an atlas he drew a series of pseudo-maps representing geographic knowledge from Homer to Ptolemy.

There is a ‘graphic black hole’ in our knowledge of Greek history in the fifth century, in that there seems to be evidence for graphic production known to Herodotos but not a scrap of it has come down to us. I summarised the arguments for and against the existence of a Greek cartography because the black hole obscures the role which recreation graphics play in the modern historiography of space in the texts of Homer and Herodotos.

Given that most of the material about ancient spatial concepts we are dealing with are re-creations it is important to understand the principles on which they are made, otherwise graphics can easily slip out of their context and rapidly be misinterpreted. Apart from the difference in form—map-like or schematic—discussed above, there is another distinction of intention: graphics may be offered by their creator as a re-creation or imitation of a supposed ancient Greek original or they may be offered as an original visualisation. To demonstrate this, we can classify some examples combinatorially for form and intention (figure 6.4).



Form vs intention in graphic representations

Figure 5.6 Form versus intention in graphic representations

In the figure, lines represent possible combinations, labels on lines are actual examples; that is, five of the eight possible combinations are accounted for by at least one example. The dashed line from map of realia to reproduction is the thing which we don't know ever existed and we certainly haven't got a copy of: a map from fifth-century Greece in a style recognisably similar to the Barrington Atlas which if not a Greek original had at least been transmitted accurately so as to be considered a good 'reproduction'. The dotted line from 'map' to 'referencing' can be taken to represent all modern cartography before the social semiotic critique of cartography was propounded by J. B. Harley and others. So it appears that form and intention are in fact independent. When we know a lot about the circumstances of production we can know whether the author intended the graphic to be a reproduction of someone else's graphic or is a graphic with some other sort of inspiration. The re-imagining intention of the graphics of Agathe Thornton and Jenny Strauss Clay can be known from their explicit statements or knowledge of publication and illustration conventions. Both are schematic in form. Similarly, the schematics of Wheeler, being embedded in his text, carry still his explicit statement. The 'parallelogram of Ephorus', which is central to Heidel's history of development of Greek world view, is also schematic in form but it is not so clear in that case what the intention of the 'original' version of the diagram was.

The discussion presented in this part has brought together a set of of examples created by modern scholars to illustrate space in the poems and the *Histories*. The analysis is based on showing how text and graphic interact. There is a need for a methodology of critique of pictorial representations of space which would extend this analysis and put it on a sounder basis. This should take the form of a diplomatic of diagrams which would study a) how diagrams have been transmitted and, specifically, show the effect of the manual copying process; and b) how diagrams are referred to in texts, extending the work of Netz on lettered diagrams; and c) develop some hypotheses which might explain the disappearance (or complete transformation) of a wholegraphic genre. For strand a) real results may be possible in future along the lines of a picture criticism as defined by Kari Kraus: combining the mechanical and perceptual reasons for small changes undergone by pictures when they are copied by

hand.³²⁴ Another strand will be almost the inverse: it will examine the change in descriptive text as the writer describes a diagram or map. The work of Netz provides a model via the uncovering of the interdependency of text and diagram in mathematical texts. And there is further research to be done along the lines suggested by Kraus of a purely empirical kind whether or not manuscripts are discovered to supplement existing evidence.

One benefit of a standard method in the form of a diplomatic of diagrams is that the extremely indirect evidence comprising i) fragmentary, and ii) very late, primary graphic material could illuminate each other. It is not completely impossible that more primary material may be discovered in future, and such a methodology would enable it to be assessed historically and placed correctly in time and space; in that case stronger inferences about Homer's and Herodotos' eras will become possible.

³²⁴ Kari Kraus, 'Picture criticism' in Neil Fraisat & Julia Flanders (eds.), *Cambridge companion to textual criticism*, Cambridge University Press, 2013, pp236–256.

Part III Cognition

Chapter 6

Spatial cognition and spatial language

This part shows the kinds of linguistic structure which are used in the *Odyssey* and the *Histories* by means of analysis of some selected passages of spatial description. The present chapter gives a summary of the theory of spatial cognition as it affects language in order to provide the needed tools; it ends with an analysis of a special kind of spatial description, an ecphrasis. Chapters 7 to 9 are devoted to analyses of longer passages which have different linguistic characteristics.

This chapter summarises the principal concepts in spatial cognition and language together with some of the empirical research. The principal concepts are (a) the difference between topological and metric space; (b) the effect of space at different scales; and (c) the effect of perspective choice. The details of some pieces of research are discussed in some depth; this is not because they concern concepts which still stand in need of proof, but rather because in grappling with the nature of the proofs we can most easily see how those concepts work. The rest of this chapter sets out, firstly, the parameters of a spatial mental model and, secondly, the linguistic framework for the description of space.³²⁵

6.1 The existence of the cognitive model of space

The modern beginnings of the idea that ‘spatial thinking’ could be understood for its own sake are evident in a 1913 article by C. C. Trowbridge, in which two distinct ways a person can orient himself are identified: the ‘domi-centric’, where the changing direction of home is constantly tracked; and the ‘ego-centric’, in which we try at all times to orient ourselves according to the points of the compass (figure 6.1).³²⁶ Even in this early paper there is the essential recognition that orientation and

³²⁵ A comprehensive analytical survey which takes in far more than can be covered here concerning the relevant issues in cognitive science, geography and—to a lesser extent—linguistics, written by the foremost researchers in these fields is: David Mark, C. Freksa, S. Hirtle, R. Lloyd & B. Tversky, ‘Cognitive models of geographic space’, *International Journal of Geographical Information Science* 13.8 (1999): 747–74.

³²⁶ C.C. Trowbridge, ‘On Fundamental Methods of Orientation and “Imaginary Maps”’, *Science* ns XXXVIII No 990 Dec 19, 1913, pp888–897. Trowbridge regarded the domi-centric as our primitive

wayfinding are influenced by preconceived notions as well as by direct observation of the environment. Trowbridge noticed that some people have a strong sense of direction which is wrong: ‘There is a feature of the ego-centric method of orientation which seems to show that the use of this system leads to a loss of bearings’.³²⁷ This acute observation leads to an important methodological point: that the nature and extent of errors in wayfinding can be empirically determined; and if the errors so noticed can be seen to be consistent or uniform, or are found to conform to a rule then this is *a priori* evidence for a mental model. Another, perhaps equally important, effect of Trowbridge’s work was the introduction of the term ‘imaginary map’, which he illustrates metaphorically in the two diagrams of figure 6.1, showing the difference in information stored in the mind as a person moves away from a known centre. In one case, at a distance from home the information is the direction of home from the current position (RHS), in the other, it is orientation to an absolute frame of reference (LHS).

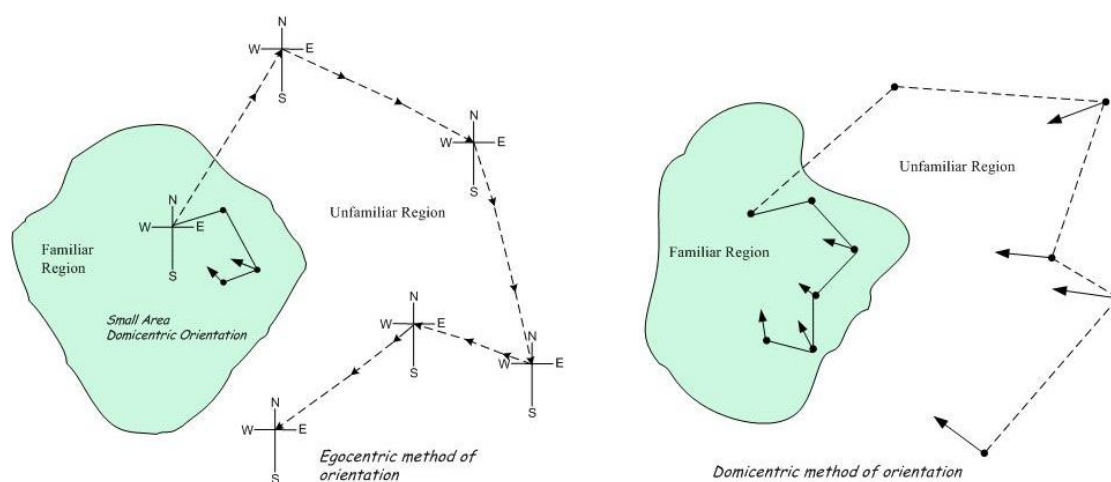


Figure 6.1 Domicentric and egocentric (redrawn from Trowbridge 1913 figs 1 & 2 with colour added)

The idea of a ‘cognitive map’ as referring to something more complex than a plain mental image is now commonly invoked in many situations. Its apparent explanatory power is attractive and the map metaphor for spatial knowledge has been powerful in

endowment and the ego-centric as a learnt skill ; the domi-centric method enables continuous learning and automatisisation whereas the ego-centric was subject frequently to error (p890).

³²⁷ Trowbridge, ‘Imaginary maps’, p890. Trowbridge speculates that it is a result of ‘accidental faults in early education arising from the faculty of vivid imagination’ and proposes to correct it by seating children ‘in a special manner when studying geography, with the cardinal points of the compass marked in the room, and the maps in books properly orientated’ (pp893-4).

subsequent research.³²⁸ The idea has been applied in discussions of ancient journeys and geographies, such as Barry Cunliffe's reconstruction of the voyage of the Greek explorer Pytheas. In that account Cunliffe wishes to convey at once the remoteness from our present state of knowledge and the daringness of Pytheas in going to and beyond Great Britain in the fourth century BC.³²⁹ In the absence of an historically reliable account of Pytheas' voyage (which we know only from sources two or three times removed, the principal being Strabo three centuries later), Cunliffe adverts often to the idea of a mental map in his imaginative account, in order, it must be admitted, to give coherence to a great deal of very fragmentary archaeological and textual evidence.³³⁰ Mental maps and 'mental geographies' are regularly invoked not only in popular accounts as a now transparent idea but also in cultural histories where the writer wishes to present fundamental differences—in view of the world, between cultures, or between societies as a whole. The unequivocal statement that 'mental imagery determines the picture of one's own place in the world and that of others' is made by Amelie Kuhrt, for example, in a short essay devoted to illuminating the sense held by Persians of where Greeks were in relation to the other peoples: she answers that they were of course on the periphery. Part of the evidence adduced is graphical original sources, hence perhaps the confidence of Kuhrt's statement.³³¹ In the next section I examine the nature of the spatial mental model and the evidence which licenses statements such as these by Cunliffe and Kuhrt.

6.2 Ontological diversity of the spatial mental model

Following the mental imagery debate of the 1960s and 1970s, research in the several cognitive science disciplines has worked toward establishing the parameters of the spatial mental model, or cognitive representation of space. Study of practical tasks

³²⁸ But note the caveat expressed by Benjamin Kuipers in 'The cognitive map: Could it have been any other way?' in Herbert Pick & Linda Acredolo, *Spatial Orientation: Theory, research and application*. Plenum Press, New York, 1983: pp345–359, in which he suggests that we think instead of an 'atlas'.

³²⁹ Barry Cunliffe, *The extraordinary voyage of Pytheas the Greek: The man who discovered Britain*, Harmondsworth, Penguin, 2002. Cf. 'the conceptual map carried by Pytheas at the end of the fourth century' (p32); 'it is difficult to piece together the kind of world picture that would have been in Pytheas' mind toward the end of the fourth century' (p48) and '[Strabo] seems to have created for himself a firmly held cognitive geography' (p166).

³³⁰ Rather less in a realist tradition and presenting a quite different memory of space and time is the work of historiographer Francois Hartog, *Memories of Odysseus*, which is a reception study of the *Odyssey* in the form of an extended meditation of Odysseus himself. (Francois Hartog, *Memories of Odysseus: Frontier tales from ancient Greece*, 2001, translated by Janet Lloyd, Chicago University Press.) See also *The mirror of Herodotus: The representation of the other in the writing of history*, Berkeley, University of California Press, 1988.

³³¹ Amélie Kuhrt, 'Greeks' and 'Greece' in *Mesopotamian and Persian perspectives* (The twenty-first J. L. Myres Memorial Lecture), Leopards Head Press, 2002, pp13-14. See also the author's figures 1a, 1b and 2, which reproduce Babylonian images of the world.

such as navigating through an environment (wayfinding) and map reading, as well as study of the language of spatial descriptions, have contributed to an understanding of the spatial mental model, which is now revealed to be neither solely imagery, solely words, nor solely propositional.³³²

In other words, the covert reference organisation—to use the neutral term introduced by Susanna Millar—which organises the spatial knowledge of an individual, is ontologically diverse.³³³ Millar has studied wayfinding and spatial orientation ability in the blind, including children congenitally totally blind and from that research, focusing in particular on the sense of touch, and its relation to the distal senses of sight and hearing, she emphasises that it is the combination of sense inputs which enables efficient navigation in the environment. Her studies point to a cognitive model with a basis in non-metric (non-Euclidean) space. Her results generalise to sighted persons as well.³³⁴

6.3 Determining the nature of the spatial mental model by experiment

6.3.1 Determinate and indeterminate descriptions

One of the ways we can work out how a mental model of space is created in the mind of an individual, and used by that individual, is by investigating the mechanics of spatial description. An early piece of experimental work on the theory of spatial description was done by Kannan Mani and P. N. Johnson-Laird in 1982³³⁵ which looked at the difference in reader processing of determinate and indeterminate descriptions (where a determinate description is one which presents spatial references which can only be interpreted in one way with respect to positions of objects, and an

³³² P. N. Johnson-Laird in *Mental models: Towards a cognitive science of language, inference and consciousness* (Cambridge, Mass, Harvard University Press, 1983) gives a good summary, with recent history in his Chapter 7 ‘Images, Propositions and models’ (pp 146–166). This was the book which focused a good deal of research on whether it could be experimentally determined what kind of processing model were involved in spatial tasks.

³³³ Susanna Millar, *Space and sense*, Hove, East Sussex, Psychology Press, 2008. Some differences of terminology remain: geographers, for example, speak of geographic space, where experimental psychologists speak of large-scale space. On the other hand both those fields now contribute to the design of GISystems and to GIScience, so there is reason to expect some unification of terminology as automated systems continue to develop. On cross-disciplinary terminology see the review of literature referred to at note 1 above.

³³⁴ Millar, *Space and sense*, pp102–103 (‘The covert reference organisation that can be inferred from performance errors may well show, and often does show, that people’s performance in vision was not based on the use of Euclidean principles as applied to external space as defined by geometers.’).

³³⁵ Kannan Mani & P.N. Johnson-Laird, ‘The Mental representation of spatial descriptions’, *Memory and Cognition* 10.2 (1982): 181–87.

indeterminate description is one which presents insufficient information to determine one specific arrangement or disposition of objects). Mani and Johnson-Laird presented subjects with a very small subset of sentences in simple spatial proposition form in order to test specifically for recall of truth-propositional content of determinate and indeterminate descriptions. They were able to establish that there is cognitive separation of propositional and linguistic content of spatial descriptions. There are two further highly interesting results from this study which subsequent researchers have confirmed and built upon. The first of these is that the propositional content of determinate spatial descriptions was very much better recalled by a reliable margin.³³⁶ The second observation was that verbatim recall of the text is better for indeterminate descriptions than it is for determinate descriptions.

The authors' explanation for these interesting results is that a mental model of spatial information which supports inference is able to be formed on the basis of a determinate description and the existence of such a model actually inhibits ability to recall linguistic form. And, conversely, because 'ordinary language is so indeterminate' language competence itself entails a certain level of ability for literal recall, so that literal recall 'cuts in', so to speak, even when text is spatially indeterminate. The authors therefore propose that two forms of mental representation must be involved in processing a spatial description; this supports a 'constructive' theory and confirms that 'internal models' are part of language competence.³³⁷

6.3.2 Topological space and metric space

The fact that there seems to be a cognitive separation between the non-metric, qualitative and discrete information of topological space, and metric or quantitative information, which is metric or Euclidean space, is the first important distinction in our cognitive representation. Topological space and metric space are two different things. Topological knowledge is the knowledge we have of landmarks and paths or routes. Metric space is the knowledge we have of distance and direction. The qualities of topological space tend to be preferentially employed by an individual when

³³⁶ 'subjects remembered the meaning of determinate descriptions very much better than they remembered the meaning of indeterminate descriptions' (Mani & Johnson-Laird, pp183–184).

³³⁷ Mani & Johnson-Laird, p186.

answering a ‘where’ question because, as Barbara Tversky puts it, ‘Landmarks are relatively easy and direction relatively difficult’.³³⁸

There is experimental support for considering topological knowledge as primary, or ‘first in’ and ‘first used’. David Mark observes that from a small-scale experiment in which subjects were asked to give instructions for getting somewhere and had a free choice of mode, many³³⁹ chose to present a sketch map, and that most of the maps had no scale.³⁴⁰ The makers of these maps, then, clearly considered that the relative positions of various landmarks was sufficient navigational information: they were thinking topologically. And in fact the sketch maps from this exercise were assessed (by the author of the paper) as ‘topologically adequate.’³⁴¹

An elaboration of the model of topological and metric kinds of knowledge is the Spatial Semantic Hierarchy (SSH) proposed by Benjamin Kuipers. Kuipers’ work in robotics resulted in the SSH as a multi-level model which shows how many types of knowledge contribute to spatial awareness and enable people to perform wayfinding tasks.³⁴² To the topological and metric classes of information the SSH adds ‘sensory’, ‘control’, and ‘causal’ classes.³⁴³

The Sensory category includes ‘names’ and ‘sensor values’. The meaning of the latter is obvious enough and includes inputs from the external world (the sight of a tree up ahead, the feel of a different surface underfoot, etc.); but why are names classified as Sensory? Names, that is placenames or toponyms, hold previously-acquired place information and summarise it—whether more or less dense, or more or less superficial—in a single word. They are classified as ‘sensory’ because they constitute base input or starting data unconnected with, and not derivable from, other kinds of data: they carry spatial information only to the extent that their referent is known. A

³³⁸ Barbara Tversky, ‘Places: Points, planes, paths, and portions.’ in Emile van der Zee & Jon Slack (eds.), *Representing direction in language and space*, 2003, pp132-143, Oxford University Press, Oxford, at p142.

³³⁹ 18 out of 20: David Mark, ‘On giving and receiving directions: Cartographic and cognitive issues’ in *Auto-Carto 8, Proceedings, 8th International Symposium on Computer-Assisted Cartography, Baltimore, Maryland, March 29–April 3, Falls Church, Virginia, 1987*, pp562–571.

³⁴⁰ 15 out of 18: Mark, ‘Giving and receiving directions’.

³⁴¹ Mark, ‘Giving and receiving directions’, p568.

³⁴² Benjamin Kuipers, ‘The Spatial Semantic Hierarchy’, *Artificial Intelligence* 119 (2000): 191–233.

³⁴³ Kuipers shows the interconnections between all these classes on a diagram (Kuipers, ‘Spatial Semantic Hierarchy’, figure 1, p194) which is reproduced at the end of this chapter as figure 7.7.

toponym employs no frame of reference or coordinate system to specify position; toponyms are assimilated to the topology system in English (but not necessarily in other languages.³⁴⁴) Herodotos makes use of the same pre-existing knowledge locked up in placenames conspicuously at 2.7.1 where he defers to readers' knowledge of the distance between Athens and Pisa in the middle of a statistics-dense description of Egypt.

The knowledge contained in placenames can sometimes be made meaningful if the names are brought into relation to other placenames: they become meaningful as part of a set. The *Iliad's* catalogue of ships (Book 2.484-785)³⁴⁵ is an information-rich placename set. The Catalogue is principally a catalogue of places whose set inclusion criterion is 'sent ships to Ilion'. As individual names, the placenames in the Catalogue in their name-as-reference role would have a particular affective result for persons in the poem's audience at each singing, as they recognised their own place of birth or connection.³⁴⁶ This is an audience effect which a toponym may carry independent of its place in a catalogue, it consists solely in recognition of the referent. As a set placenames gain another meaning by arrangement. In the Catalogue places are mentioned in groups by region, 'contingents'. Modern commentators have used the arrangement to construct an historical argument about Greek travel as affected by 'the

³⁴⁴ Stephen Levinson, *Space in Language and Cognition: Explorations in cognitive diversity*, Cambridge University Press, 2003, p66.

³⁴⁵ If we include the *prooimion* and invocation to the muses as well as the simile of the men swarming like fire and the earth groaning under their feet (as if it were pain to Homer to recite a mere list) at the end.

³⁴⁶ See Elizabeth Minchin, *Homer and the Resources of Memory* (2001, Oxford University Press) with discussion of the audience effect of the Catalogue at pp79–80: 'The singer is aware that individual members of his audience are monitoring the list in expectation of reference to their own family, a family connection, a popular figure, their own region, or indeed their own town: the naming of names which are dear to them is a source of pleasure and pride.' (p80) The tracing of the names in the catalogue to real ancient places was done by R. Hope Simpson & J. F. Lazenby in *The catalogue of Ships in Homer's Iliad*, Oxford University Press, 1970. Their work confirms a 'Mycenean layer', for the Catalogue at least, in the *Iliad*. The authors arrive at this conclusion not only from the dates for the critical cities of Eutresis and perhaps Krisa in Phocis, Dorion and Pylos in Messenia and Hyrie in Boeotia (p154) but also some generalisations which they are able to make precisely because the Catalogue is a largish set of information. The authors are aware that they are generalising in the presence of uncertainties: "There are not many such places [inhabited in Mycenean period and not again if at all until after the composition of the *Iliad*], but for obvious reasons there cannot be: as we said above, most of the places mentioned in the Catalogue were inhabited throughout antiquity, and places deserted after the Mycenean period are precisely those which are not likely to be locatable now. But that there are any such places is very difficult to explain unless the Catalogue here at least preserves Mycenean tradition.' They go on to say: 'Moreover, these places, however few they may be, take on a much greater significance when it is realized that there is not a single place mentioned in the Catalogue which can be shown not to have been inhabited in the Mycenean period' (p154).

political and physical geography of Greece³⁴⁷ or about the poet's knowledge of the affective epithets given an argument about the historicity of the Catalogue.³⁴⁸

6.3.3 Routes and surveys

Holly Taylor and Barbara Tversky have demonstrated that readers do in fact form a mental model of the space in which a situation takes place.³⁴⁹ They show that though a text may be written from a particular point of view readers can answer without difficulty general questions implying other perspectives. This confirms that what a reader has in his or her head is a model, or generalisation of the spatial material presented in the text rather than (only) the literal text. They note that this cannot be done if the text is not coherent, confirming the conclusions of Mani and Johnson-Laird about determinate and indeterminate descriptions. The research reported by these authors employed two methods to convey spatial information: as a 'survey' description, and as a 'route' description. (As we shall see below, gaze tours form a distinct third style of description.) A survey description 'provides an overview of the spatial layout', whereas a route description 'gives the reader a set of procedures for way-finding in the environment'.³⁵⁰ In terms of the test texts:

survey texts: 'used the canonical terms *north*, *south*, *east* and *west*, along with other spatial terms, such as *across* or *in the centre*, to refer to objects with respect to previously mentioned objects.'

route texts: 'addressed readers in the second person and described all locations with respect to the reader's suggested position in the environment using egocentric terms such as *on your right* or *in front of you*.'³⁵¹

Even though survey style descriptions and route style descriptions use such different arrangements of spatial facts to achieve their ends, provided the description in either case well constructed a spatial mental model is formed and its content is available and affords equal access to spatial relations it records. They found that 'all information

³⁴⁷ For example, Geoffrey Kirk's tentative proposal (p185) for considering the Catalogue as three routes (*The Iliad, A Commentary, Books 1-4*, Cambridge University Press, 1985).

³⁴⁸ Hope Simpson & Lazenby, *The catalogue of ships* and Kirk, *The Iliad*, pp178-240.

³⁴⁹ Holly Taylor & Barbara Tversky, 'Spatial mental models derived from survey and route descriptions', *Journal of Memory and Language*, 31:2 (1992): 261-292.

³⁵⁰ Taylor & Tversky, 'Spatial mental models', p261.

³⁵¹ Taylor & Tversky, 'Spatial mental models', p265.

relating to landmarks [is] equally accessible’, regardless of whether the input was a route description or a survey description.³⁵² As the authors emphasise, a particular perspective might be recoverable by querying the abstract mental model, but is not part of the abstraction itself.³⁵³

6.3.3.1 Characteristics of a route description

A route description³⁵⁴ is characterised by use of an intrinsic frame of reference with the addressee (reader) as the referent. Recall from section 7.4 that Kuipers defined the logic of a route as view-action-view: a route is a ‘collection ... of “view-action” pairs’ which can be remembered and described to another in the form of ‘view-action-view’ triples.³⁵⁵ Taking as example a route description elicited in response to a request to describe a space given a map where subjects could choose any style (classified as a route description by the authors) as illustration:

To your right will be the “personal computers” room. Continue until you’re forced to make a left. The “Stereo components” room will be in front of you as you turn left.³⁵⁶

In this example, ‘personal-computers room’ → continue and make a left → ‘stereo components room’ forms a clear view-action-view triple. In this case the writer, though only asked to give a description which would tell another person where the landmarks were positioned, has been so focussed on the chosen route that he/she has used a giving directions script. The actions are given with respect to the addressee and use a two-part relation implying an intrinsic frame of reference. Taking one of these sentences, we can label its parts:

To your right	will be	the “personal computers” room
locative phrase		object which the speaker wishes to state the location of

³⁵² Taylor & Tversky, ‘Spatial mental models’, p288.

³⁵³ Taylor & Tversky, ‘Spatial Mental Models’, p289.

³⁵⁴ The classic article which defined this mode, Charlotte Linde & William Labov, ‘Spatial networks as a site for the study of language and thought’ *Language* 51.4 (1975): 924–939, claimed that it was the default mode for spatial description where knowledge of the environment has been gained by exploration (route-finding); this is no longer a generally accepted correlation: see the section discussing ‘perspective’ below.

³⁵⁵ David Mark, ‘On giving and receiving directions: Cartographic and cognitive issues’ in *Auto-Carto 8, Proceedings, 8th International Symposium on Computer-Assisted Cartography, Baltimore, Maryland, March 29 – April 3, Falls Church Virginia, 1987*: pp562–571 at page 563

³⁵⁶ Part of the description only, the full description given by the authors: Taylor & Tversky, ‘Perspective in spatial descriptions’, *Journal of Memory and Language*, 35.4 (1996): 371–391 at p379.

PP specifying a location	= the figure with respect to a Ground object
-----------------------------	---

The imagined reader functions as the ‘ground’. A person has intrinsic ‘front’, ‘back’, ‘left’ and ‘right’. It is these intrinsic ‘parts’ which are being appealed to here in order to locate the figure – the personal computers room – with respect to the ‘ground’ of the person. This combination of intrinsic frame of reference (FOR) which locates an object (figure) of interest with respect to the interlocutor as ‘ground’ is the linguistic framework which defines a ‘route’ form of spatial description.

As I foreshadowed at the beginning of this chapter, there is a certain reciprocity between the study of spatial mental models in general and the linguistic study of spatial descriptions: we can not only use knowledge about the human capacity for mental modelling to help understand what is happening in a given text, we can also use observations about language in spatial descriptions to refine our understanding of the spatial mental model. The term ‘grammar of space’ is used to refer to the linguistic structures involved. Space is one of the varieties of ‘unarticulated content’ defined by Relevance Theory in pragmatics,³⁵⁷ and it is therefore difficult to uncover the nature of the language structures involved. Research has proceeded on the twin bases of major insights such as that of Leonard Talmy concerning the topology of prepositional phrases and in-laboratory experiments in reading and production of language; and it has now succeeded to some extent in defining a grammar of space which may apply to most—perhaps all—languages.

6.4 The spatial mental model and language

A striking insight from psychology is that although languages have quite inadequate vocabularies and expression schemas to describe human faces, most people can give accurate directions (entailing at least some knowledge of how to describe space): when you ask the way, provided the interlocutor in fact knows, ‘you are likely to receive coherent and accurate directions.’³⁵⁸ Geographic awareness and personal experience of space can be recognised in language. We have seen that testing how

³⁵⁷ The term used in Kefa Korta & John Perry, ‘Pragmatics’, *The Stanford Encyclopedia of Philosophy* (Winter 2012 Edition), Edward N. Zalta (ed.). Accessed online at <http://plato.stanford.edu/archives/win2012/entries/pragmatics>.

³⁵⁸ Barbara Tversky & P. U. Lee, ‘How space structures language’, in C. Freksa, C. Habel, & K. F. Wender (eds.), *Spatial cognition: An interdisciplinary approach to representation and processing of spatial knowledge*, Berlin, Springer-Verlag, 1998 (pp157–175) at p157.

people interpret spatial descriptions contributes to an understanding of the spatial mental model and that literal recall of text can be distinguished in its effects from recall indicated by some other mental representation. It has been observed that questions about the nature of the environment which are inferable for a given text, but not literally encoded, can be answered correctly.³⁵⁹

It is time now to consider the other half of the cognitive model~linguistic structure question and examine the common core of structures involved in spatial description across diverse languages and language families. Current understanding of how that core works – the grammar of space – begins with the insight of Leonard Talmy, whose influential essay ‘How language structures space’ identified the topology of English prepositions and proposed that all languages manifest some particular set of topologies.³⁶⁰

Prepositions indicate location, goal of motion, and of source of motion, but they do more than this; they represent a whole conceptual structure based on the speaker’s view of space, as Talmy realised. Prepositions are closed-class items, that is, values cannot be freely added to the set of prepositions by individual speakers. In their spatial uses prepositions divide the world into ‘figure’ and ‘ground’ and offer the ability to describe a certain limited number of configurations (though the fact that that may be a large number in English as in Greek may obscure the point).

The prepositions allowable with a given real object reveal the inherently limiting topology of the object. One can say ‘on the table’ but not ‘*in the table’³⁶¹ because a table can only be regarded as a horizontal surface when viewed in spatial relationship to another object. A car can function both as a horizontal surface and as an enveloping container so that both ‘on the car’ and ‘in the car’ are available: choice of one or the other conveys the speaker’s view of the topology of object-plus-car on any particular occasion. Talmy’s study shows that the English preposition system in actual use reveals the choice of view the speaker has taken where several are possible.

³⁵⁹ Barbara Tversky & Holly Taylor, ‘Acquiring spatial and temporal knowledge from language’, in M. J. Egenhofer & R. G. Golledge (eds.), *Spatial and temporal reasoning*, New York, Oxford, 1998 (pp155–166) at p157.

³⁶⁰ Leonard Talmy, ‘How language structures space’ in Herbert Pick and Linda Acredolo (eds.), *Spatial orientation: Theory, research and application*, New York, Plenum Press, 1983, pp225–282.

³⁶¹ An asterisk beside a phrase indicates by linguistic convention that it is not well formed.

Silvia Luraghi builds on the work of Talmy and others in cognitive grammar to tease out the semantic roles of prepositions in Greek.³⁶²

6.5 Frame of reference

The term ‘frame of reference’ (FOR) refers to the implicit choice of an origin and the consequential constraints on manner of expressing the rest of a spatial reference in any given speech act. In a major study in 2003 the linguist Stephen Levinson unified frame of reference terminology and proposed that there are three canonical frames with the relationships shown in table 6.1.³⁶³

Table 6.1 Aligning classifications of frames of reference (Stephen Levinson, *Space in language and cognition*, table 2.4, page 55)

INTRINSIC	ABSOLUTE	RELATIVE
Origin \neg = Ego	Origin \neg = Ego	Origin = ego
Object-centred Intrinsic perspective 3D model	Environment-centred	viewer centred Deictic perspective 2.5D sketch
Allocentric		Egocentric
Orientation-free	Orientation-bound	

As we saw above, any scene is described by marking one part as the Focal object leaving the rest as the ‘Ground’ so that the general problem of expressing distribution in space is solved by stating the position of the focal object with respect to the ground. How the Focal object is related to the Ground is expressed by choosing an origin and frame of reference. Or, more correctly, a speaker only consciously chooses a perspective and FOR follows as a natural linguistic option.³⁶⁴

A complicating factor in analysing any particular spatial description is that in some languages, including English, the same words are used across the intrinsic and relative frames of reference, so that some phrases are naturally ambiguous. When writers and speakers become aware of this, an adjusting or qualifying phrase is

³⁶² Silvia Luraghi, *On the Meaning of Prepositions and Cases: A Study of the Expression of Semantic Roles in Ancient Greek*, Amsterdam/Philadelphia, John Benjamins, 2003.

³⁶³ Levinson, *Space in language and cognition*. In making this generalisation Levinson remarks that this area is mis-analysed for English and not analysed at all for other languages (‘unexplored’) with the result that incorrect generalisations across languages have been made which need to be ‘jettisoned’. In particular that some languages (notably Australian languages) use an absolute frame of reference (p34).

³⁶⁴ Levinson, *Space in language and cognition*, p60.

usually added. In fact, redundancy, even in coherent and well-organised discourse, is common.³⁶⁵

6.6 Gaze tours

At this point to the two basic modes of organising a spatial description, the route tour and the survey, we add a third, the gaze tour.

Veronika Ullmer-Ehrich designed an observational study to elicit spontaneous descriptions of a single familiar room within extended discourse, ensuring that subjects used the language and expressions most natural to them.³⁶⁶ Her data show that descriptions begin by specifying a reference frame which consists of (i) a reference place, and (ii) reference orientation. An important result of this study is the identification of a type of description which the author calls a ‘gaze tour’ which ‘reconstructs what would be seen if one were going into the room and bringing one piece of furniture after another into focus’.³⁶⁷ A gaze tour is distinguished from an imaginary walking tour, identified in previous research in language of spatial navigation,³⁶⁸ by four aspects of its language (table 6.2).

³⁶⁵ As pointed out by Barbara Tversky in an overview of the common concerns and current thinking of the subfields of cognitive science (Barbara Tversky, ‘Spatial perspective in descriptions’ in Bloom et al. (eds.) *Language and space*, MIT Press, 1996, pp463–491).

³⁶⁶ Veronika Ullmer-Ehrich, ‘The structure of living space descriptions’ in Robert Jarvella & Wolfgang Klein (eds.), *Speech, place and action: Studies in deixis and related topics*, Chichester, John Wiley, 1982, pp219–249.

³⁶⁷ Ullmer-Ehrich, ‘Living space descriptions’, p231. An interesting mechanical equivalent of this is achieved by a video camera and focus software of the sort used to realise a ‘virtual tour’. See for example the website of the company Pixelcase, especially the panorama of Perth at <http://www.pixelcase.com.au/panoramas/virtual-tour-company/Aerial-Virtual-Tour.html>. Their Lincoln cathedral interior at <http://www.pixelcase.com.au/panoramas/virtual-tour-company/historic.html> combines a ‘walking tour’ with a ‘gaze tour’ though it is principally the latter—watch the baseline as the view goes down the nave and swings round to the transept, imitating gaze with feet still.

³⁶⁸ See especially Linde & Labov, ‘Spatial networks’.

**Table 6.2 Linguistic distinction between ‘gaze’ and ‘walking’ tour
(as described in Ullmer-Ehrich, ‘Living space descriptions’, pp231–235)**

gaze tour	route
reference frame held constant (i.e. no secondary origins)	origin changes when orientation of tour changes
sentence subject is object on the tour (i.e. item of furniture)	sentence subject is addressee
verbs describe states (plus local PPs ³⁶⁹)	verbs describe accomplished actions
word order is: spatial adverbial – subject	word order is: subject (addressee) – spatial adverbial

Employing a gaze tour solves the linearisation problem inherent in any spatial description by keeping the viewpoint fixed, hence objects in the environment are mentioned in the order in which they appear to the gaze and form a chain or ordering on that basis, for example, ‘at the end of the bed is a table lamp’; or, using Ullmer-Ehrich’s examples:

- (i) then there is on the right hand side up to the window straight on is the wall with the bookshelves
- (ii) next to the armchair as far as the corner there is then the second table³⁷⁰

Both these examples show the speaker employing temporal deixis (‘then’) to ensure that the linear ordering is properly conveyed. Clause (i) is the first locative statement in the speaker’s description of his room so that it also has the duty of establishing the direction of (gaze) travel and so adds an adverbial phrase of direction (‘straight on’). Within a gaze-tour format Ullmer-Ehrich identifies two strategies for linearisation: ‘roundabout’ which uses a single ordering and parallel line which uses several orderings, still starting from a single origin and naming items first along one line then along another. A further strategy might be used to break up a description into parts such that some parts are described via an ‘insert’, or subroutine, in the discourse which will correspond to a sub region of the environment. In this case perspective

³⁶⁹ PP = prepositional phrase.

³⁷⁰ Both from her text 7 on pp228–229 (Ullmer-Ehrich, ‘Living space descriptions’).

will change to use an intrinsic frame of reference with the origin a particular object, indicating that a group of objects is being described in their relation to each other. Figure 6.2 annotates a fragment for Ullmer-Erich's discussion to illustrate the point:³⁷¹

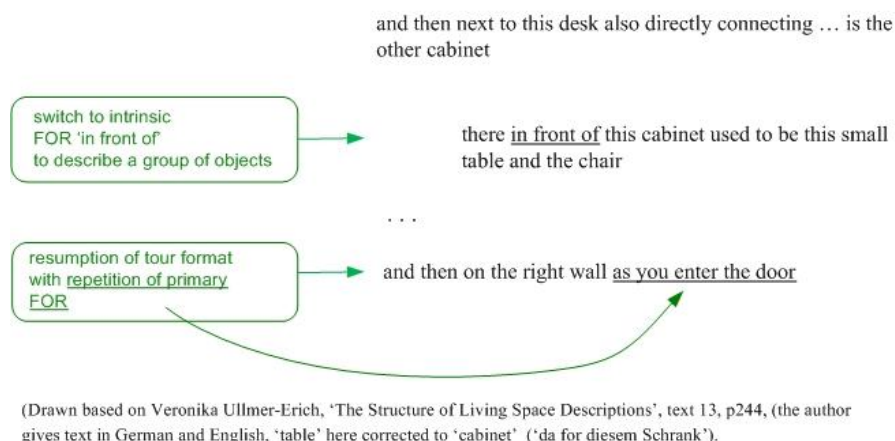


Fig. 6.2 Text fragment illustrating a gaze tour

Given that the tour format involves changes of perspective, in a gaze tour—as in an imaginary walking tour—temporal deictics ('then', 'then next') identify the discourse as a tour format and mark a move forward; this strategy avoids the ambiguity of spatial deictics.³⁷²

6.7 Perspective

'Describing space is a relatively simple task that people do well'.³⁷³ Although an individual experiences the world from a specific perspective, the ability to change to another's perspective is necessary for effective communication or to conform to pre-established rules of politeness.³⁷⁴ This ability to change perspectives is evident for example in the tendency, when describing a space or giving directions, to use expressions such as 'to your right will be the "personal computers" room' which takes a real or imagined reader's perspective.

³⁷¹ From Ullmer-Erich, 'Living space descriptions', text 13, p244, (the author gives text in German and English, 'table' here corrected to 'cabinet' ('da for diesem Schrank')).

³⁷² In a separate study the authors discovered that people use descriptive inserts, what we might call subroutines, organised either by a sequencing or grouping principle; they also noticed that resumption of main description after a subroutine was marked by restatement of the primary reference frame—that finding is of interest because it differs from Tversky's who notes that people often switch perspectives without signalling.

³⁷³ Taylor & Tversky, 'Perspective', p389.

³⁷⁴ Tversky, 'Spatial perspective', p470.

Beginning with the experimental observation that ‘language was used quite differently in survey and route descriptions’³⁷⁵ Taylor and Tversky find a correlation between the frame of reference chosen and the type of description. They propose that there are three basic patterns of creating a description which link a given frame of reference with a given format:

a route description using intrinsic frame of reference
 a survey description using absolute frame of reference
 a gaze tour using relative frame of reference.

which replicate a ‘natural way of experiencing the environment.’³⁷⁶

In order to create a coherent description the communicator must make a selection of values for three variables: viewpoint, referent and terms of reference.³⁷⁷ This selection has been shown to be independent of perspective represented in the mental schema which represents the speaker’s or writer’s knowledge of the environment to be described,³⁷⁸ that is, it is part of the choices made during production of language, and not a reflection of the cognitive process of understanding and remembering an environment which precedes the description.

Tversky suggests that there are two primary modes: ‘personal’ and ‘neutral’; and that personal is further divided into speaker’s and addressee’s perspective, while neutral is divided into intrinsic / landmark-based and extrinsic / external (figure 6.3).

³⁷⁵ Tversky, ‘Spatial perspective’, p482.

³⁷⁶ Taylor & Tversky, ‘Perspective’, p384.

³⁷⁷ Taylor & Tversky, ‘Perspective’, p384.

³⁷⁸ Taylor & Tversky, ‘Spatial Mental Models’ determined that subjects could give spatial information in either survey or route form with equal speed independent of the form in which they had received it (which, as previously observed, is a priori demonstration that there is a spatial mental model in some form).

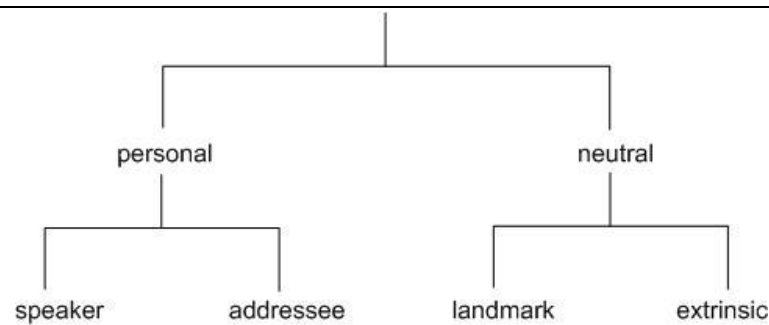


Figure 6.3 Perspective choice in spatial description

Readers of a narrative may choose which perspective to take, independent of, or not entirely determined by, the perspective of the narrative and, further, both narrators and readers can swap perspective, sometimes without signalling the fact.³⁷⁹

Tversky observes that since all three frames of reference – intrinsic, relative and absolute - are available in English they are in fact likely to be used: this argues against the existence of a ‘default’ perspective and makes it valid to investigate perspective choice in discourse using English with a view to possible generalisations to other languages.³⁸⁰

This has been called by Tversky and co-researchers the *spatial framework model*.³⁸¹ The reasoning behind the spatial framework model is that there are three ‘spaces’ [or sets of references], interconnected with each other, which are important for navigation: the space of the body, the space around the body and the space of navigation.³⁸² The spatial framework model is offered as a replacement for models based on imagery because the latter do not account for the empirically-established data: especially that reaction times for subjects asked to retrieve spatial knowledge of a learned environment differ depending on relationship to the three main axes of the body.³⁸³

³⁷⁹ Surprisingly, Tversky does not draw out the significance of this last finding, but it would seem to be significant that the ‘swapping’ ability is unconscious.

³⁸⁰ Tversky, ‘Spatial perspective’, pp468–469. (To test their spatial mental model subjects read prepared spatial narratives and were then presented with the same data in another form [an image of the objects in the appropriate relations] and asked for a statement of the relative positions of the objects.)

³⁸¹ Barbara Tversky, ‘Spatial perspective’, p472.

³⁸² The theory is expounded especially clearly in Barbara Tversky, J. B. Morrison, N. Franklin & D. J. Bryant, ‘Three spaces of spatial cognition’ *Professional Geographer*, 51 (1999): 516–524 at p516.

³⁸³ Tversky et al., ‘Three Spaces of Spatial Cognition’, p519 (But the model is specifically applied by the investigator only to one of the spaces under discussion – the space around the body).

6.8 Summary

Ideas from geography, computer science, experimental psychology and linguistics converge in proposing that the formation of a mental model is involved both in the process of making a description of space and in the performance of practical spatial tasks such as wayfinding. The content of the spatial mental model is ontologically diverse, and can be categorised along several axes, the most important being topological space versus measured space. Space at different scales constitute different ‘spaces’, which are perceived and conceptualised differently. Objects in the environment are categorised as points or landmarks to navigate between, successive views are remembered and available as we progress along a path. If a speaker has formed an overview of a space he or she may flexibly choose to describe it from a particular perspective, by using a survey style and an absolute frame of reference, or using a route tour or gaze tour format, choosing to take her own, someone else’s, or take a neutral perspective. These choices are made depending on perceived communicative need. In the next three chapters I use these concepts to explicate the structure of some passages from the *Odyssey* and the *Histories*. In the final section (6.9) I analyse the structure of a short ephrasis from the *Odyssey*, which we expect to be cast in the form of a survey description.

6.9 Viewable space in the *Odyssey*: Alkinoos’ Garden

6.9.1 Analysis

A short descriptive passage from Book 7 of the *Odyssey*, the garden of king Alkinoos, which is self-contained in that it is free from complex spatial digressions, offers an opportunity to examine how Homer presents a space from a single point of view. A garden quintessentially takes up space in order to grow things; it also has position because it is conceived as an adjunct to a dwelling, so I selected this passage because it is an ephrastic description of space which of necessity must use some method to indicate arrangement of objects with respect to each other.

ἔκτοσθεν δ’ αὐλῆς μέγας ὄρχατος ἄγχι θυράων
 τετράγυος· περὶ δ’ ἔρκος ἐλήλαται ἀμφοτέρωθεν.
ἔνθα δὲ δένδρεα μακρὰ πεφύκασι τηλεθόωντα,
 ὄγχναι καὶ ῥοιαὶ καὶ μηλέαι ἀγλαόκαρποι
 συκέαι τε γλυκεραὶ καὶ ἐλαῖαι τηλεθόωσαι.

115

τάων οὐ ποτε καρπὸς ἀπόλλυται οὐδ' ἀπολείπει
 χείματος οὐδὲ θέρευς, ἐπετήσιος· ἀλλὰ μάλ' αἰεὶ
 Ζεφυρίη πνείουσα τὰ μὲν φύει, ἄλλα δὲ πέσσει.
 ὄγχνη ἐπ' ὄγχνη γηράσκει, μῆλον δ' ἐπὶ μήλω, 120
 αὐτὰρ ἐπὶ σταφυλῇ σταφυλή, σῦκον δ' ἐπὶ σύκῳ.
 ἔνθα δὲ οἱ πολύκαρπος ἀλωὴ ἐρρίζωται,
 τῆς ἕτερον μὲν **θειλόπεδον** λευρῶ ἐνὶ χώρῳ
 τέρσεται ἠελίῳ, ἐτέρας δ' ἄρα τε τρυγώωσιν,
 ἄλλας δὲ τραπέουσι· πάροιθε δέ τ' ὄμφακές εἰσιν 125
 ἄνθος ἀφειῖσαι, ἕτεραι δ' ὑποπερκάζουσιν.
 ἔνθα δὲ κοσμηταὶ πρασιαὶ παρὰ νείατον ὄρχον
 παντοῖαι πεφύασιν, ἐπηετανὸν γανόωσαι·
 ἐν δὲ δύω κρῆναι ἢ μὲν τ' ἀνὰ κῆπον ἅπαντα
 σκίδναται, ἢ δ' ἐτέρωθεν ὑπ' αὐλῆς οὐδὸν ἴησι 130
 πρὸς δόμον ὑψηλόν, ὅθεν ὑδρεύοντο πολῖται.

And outside the courtyard near the gates is a large orchard
 of four acres; and around it a fence has been thrown on both sides.
and there tall flourishing trees had grown,
 pears and pomegranates and shiny-fruited apple trees 115
 and sweet figs and olive trees flourishing.
 Whose fruit never dies nor fails
 In winter or summer, lasting all the year; but truly always
 a Westerly blowing makes some grow and others ripen.
 Pear ripens upon pear and apple upon apple 120
 And grape upon grape, and fig upon fig.
And there his productive vineyard is trenched in
 one part of it, a drying space on level ground
 is dried by the sun, and while they gather some,
 they are treading others; and in front of it unripe grapes 125
 throwing out flower, and the rest are turning purple.
And there neat herb beds - beside the farthest row -

could have been introduced with a phrase like ‘and then he saw . . . ’ (cf. 5.392-3 ὁ δ’ ἄρα σχεδὸν εἶσιδε γαῖαν / ὄξυ μάλα προῖδών), but instead is introduced with an impersonal construction. Nor does it present the position of objects with respect to Odysseus. The possibility that ἔνθα (three occurrences) actually represents deixis – that the poet, or any later rhapsode, is to be pictured pointing at each occurrence, and presumably making some variation at each, thus illustrating a structure – can, I think, be eliminated on the grounds of complexity. A reciter could do it if he or she chose but an audience could not make any sense of that number of imaginary nodes in the air.³⁸⁵ That leaves the possibility of anaphoric reference, which Munro defines as ‘one that denotes an object already mentioned or otherwise known.’³⁸⁶

The first mention of the garden ἔκτοσθεν δ’ ἀύλης μέγας ὄρχατος gives its position relative to the last thing described, almost as though there is an intention to describe layout.³⁸⁷ If so, the intention is ignored for a few verses, until the poet finds it impossible to proceed without making some statement of location ἔνθα δὲ δένδρεα . . . (112 then 114). The remaining two ἔνθα δὲ verses (122 and 127) introduce a new (named) part of the garden, so we are entitled to interpret the anaphoric referent as the ὄρχατος as a whole. The simple chained or one-level nested description strategy represented by ἔνθα δὲ . . . ἔνθα δὲ . . . is used elsewhere; ἔνθα δὲ is strategically vague – it can be taken to refer to whatever the previous convenient referent was. Vagueness, though, could not apply to the use at 114, a mere two verses after the first mention of the garden, but at verse 122 the poet may conveniently have forgotten, not indeed that he is describing a garden, but what precise layout he may already have ascribed to it.

³⁸⁵ Perhaps we could imagine a recital accompanied by drawing a diagram in the sand at the reciter’s feet, à la Archimedes? Jenny Strauss Clay, *Homer’s Trojan Theatre*, Cambridge University Press, Cambridge, 2011, notes that gesture was an essential part of the ancient performance of the Homeric poems (p55). Note: Rachel Hendery points out to me that an audience may well be able to make sense of three as ‘in most sign languages, pronominal or deictic reference is accompanied by the establishment and use of locations in the space in front of the speaker, and up to three of these is common (one for each argument of three place verbs such as give, for example)’.

³⁸⁶ Munro, *Grammar*, §247.

³⁸⁷ As Erwin Cook points out, the word ὄρχατος itself ‘implies a formal layout with plants regimented in rows’. (Near Eastern Sources for the Palace of Alkinoos’ *AJA* 108.1 (2004): 43-77, at p53).

To summarise so far, the garden as a whole, the ὄρχατος, has parts, and we expect a regular layout, so it remains to consider whether there is any indication of where within the whole the parts are placed. Each of the main parts of the text presentation of the ὄρχατος is introduced by ἔνθα δὲ; the first inherits the referent of the whole so has no further positional qualifier, but the second and third have an exegetic spatial statement: *παρὰ νεΐατον ὄρχον* for the third, and further breakdown into sides for the second.

Stanford claims that there is a ‘symmetrical arrangement’ of the vineyard part of the garden (7.122–126):

<i>ἔνθα δὲ οἱ πολύκαρπος ἀλωῇ ἐρρίζωται,</i>	122
<i>τῆς ἕτερον μὲν θειλόπεδον λευρῶ ἐνὶ χώρῳ</i>	
<i>τέρσεται ἠελίῳ, ἑτέρας δ’ ἄρα τε τρυγόωσιν,</i>	
<i>ἄλλας δὲ τραπέουσι· <u>πάροιθε δὲ τ’</u> ὄμφακές εἰσιν</i>	
<i>ἄνθος ἀφειῖσαι, ἕτεροι δ’ ὑποπερκάζουσιν.</i>	126

He identifies *θειλόπεδον*, the sunny drying place for grapes, as the ‘background’ and *πάροιθε δὲ* (125) as equivalent to ‘foreground’; the ‘background’ has a drying ground and a wine-press; the foreground has ‘on the one side green grapes, on the other grapes nearly ripe’. He derives the division of the foreground into ‘sides’ from the parallelism of the three lines which describe the background (122–124 *ἕτερον μὲν ... ἑτέρας δ’*) with the two lines which describe the foreground (125–6 *ἕτεροι δ’*). The lines are structured as a unit by this parallelism. Stanford concludes that ‘the whole has the formal proportions of a dutch garden’.³⁸⁸ Diagrammatically this might be:

³⁸⁸ Stanford, *Odyssey*, ad loc., noting Bechtel’s opinion that *θειλόπεδον* is probably *θ’ εἰλόπεδον* hence etymologically meaning sun-warmed ground. Neither form occurs elsewhere except in grammarians, eg. Aelius Herodianus 3.2 who defines *θειλόπεδον* discursively as the place where grapes dry (possibly just from a knowledge of this passage), and etymologically as well, as the conjunction of a word ἔλη, with pleonastic *θ*, and *πέδον*. (Statistic and text from TLG). Hainsworth in the Oxford commentary prefers the version of most MSS *θειλόπεδον*.

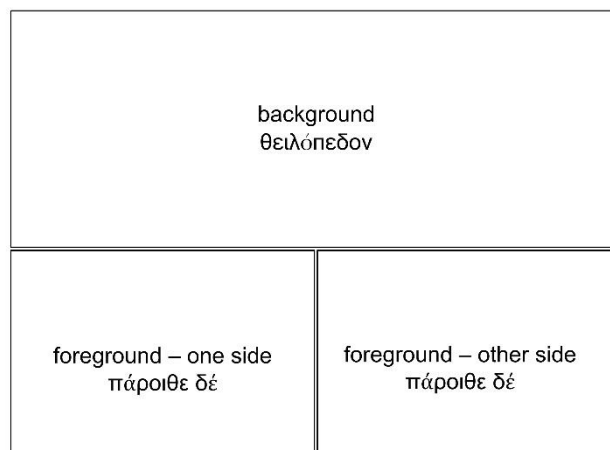


Fig. 6.4 Stanford's view of the vineyard in Alkinoos' garden (*Od.* 7.122–126)

The individual parts of the background cannot be shown unmisleadingly on a diagram as there is no indication of left or right-hand placement; similarly for the foreground parts which Stanford identifies as structural parts – the part taken up by the unripe grapes (ὄμφακές) and the part taken up by the other grapes which are darkening / ripening (ἕτεραί). The diagram also illustrates something else: if the vineyard (ἀλωή) itself has a foreground and background, it is hard to see how it fits in as a part only of the whole garden – the μέγας ὄρχατος (112), since the word ‘foreground’, of course, denotes a part of a single view. Stanford's terminology of ‘foreground’ and ‘background’ therefore must be rejected.

According to Liddell, Scott & Jones, πάροιθε is an adverb of place³⁸⁹ with the meaning ‘front’; its spatial context, as noted above, is the vineyard part of the garden whose description begins with the second ἔνθα δέ and ends before the third ἔνθα δέ. It therefore denotes a sub-part – the front sub-part – of the vineyard. when standing by itself, it can be regarded as a spatial nominal as described by Stephen Levinson of the type of English ‘top’ which acts to restrict the ground,³⁹⁰ which in this passage is the μέγας ὄρχατος. However, in this verse it does not stand alone, but governs τ[ε];

³⁸⁹ LSJ = Liddell, Scott & Henry Jones, *A Dictionary of Ancient Greek*, ad loc., meaning II adverb of place. I am grateful to one of the examiners of this thesis for pointing out a possible mistranslation of πάροιθε, hence provoking a change to my view of the whole verse given in the following.

³⁹⁰ Briefly discussed in Levinson, *Space in language and cognition*, pp 47, 74 & 102. Levinson gives English ‘top’ as one kind which acts to restrict the ground, and ‘outside’ which can act as an adverb (ibid. p74).

this is I think functioning as the second relative in a double relative clause, its pair being τῆς at 123 whose antecedent is the πολύκαρπος ἀλωή [122].³⁹¹

Returning to the garden as a whole, the description begins by stating its position and its area. The position is given relative to the thing just mentioned, the palace, and further specification, a part of the palace: it is ἔκτοσθεν ἀλλῆς ... ἄγχι θυράων, where ἔκτοσθεν is an adverb governing a case and encodes the topological relation of ‘separation’. Its dimension is given in two forms, qualitative and quantitative: it is big, it is of four acres (μέγας ... τετράγυος).³⁹² Of the verbs, only two encode locative information: ἐλήλαται (113) and σκίδναι (130). Both these verbs are augmented in their reference by spatial adverbs: ἀμφοτέρωθεν/ἑτέρωθεν. The perfect form of ἐλήλαται indicates that this is indeed description of a permanent state of things,³⁹³ adding to the impression that this is a description of a fixed (with respect to some viewer) layout; the thing driven – here a barrier – is positioned relative to the (non-specific) geometry of the previously mentioned object by περὶ in a topological statement.

There is another word connoting layout in the next statement (127–8) where the next objects in the garden, the varied small planting beds (κοσμηταὶ πρασιαὶ), are next to the last section, the vineyard (παρὰ νεῖατον ὄρχον). This is really a nested spatial reference – ‘beside the farthest row’ – where ‘farthest’ could denote a relative or an intrinsic FOR. By implication, most translators and commentators take it to be an intrinsic reference (= ‘the end row’) but a relative reference is possible (= ‘the row farthest from the viewer’). The test for a relative reference is that when viewpoint changes, the description changes,³⁹⁴ however there is no other prepositional phrase to make a comparison with, especially so if we take the context as only the two lines of this part (127–128).

³⁹¹ For τε in its function as a replacement of the relative pronoun in the second of two relative clauses see Munro, *Grammar*, §272.

³⁹² LSJ (7th edition) gives four acres for τετράγυος, though for the purposes of my discussion it does not matter what precise size this word represents providing we accept it represents some measure (τετρά-).

³⁹³ Cf. aorist of same verb denoting the action of an agent – the underlying geometry and action being exactly the same – at 6.9 ἀμφὶ δὲ τεῖχος ἔλασσε πόλει.

³⁹⁴ Levinson, *Space in language and cognition*, p45.

6.9.2 Alkinoos' garden – conclusion

Spatial information can be encoded in many different form-classes;³⁹⁵ and in this passage we have seen an unusually long descriptive passage of a space we would expect to be structured either as a survey description or a gaze tour. But that assumption—made for the purposes of argument—breaks down in the absence of a certain perspective.

The sub-parts of the garden with respect to each other or with respect to the viewer are loosely located. We could test this by drawing a picture:

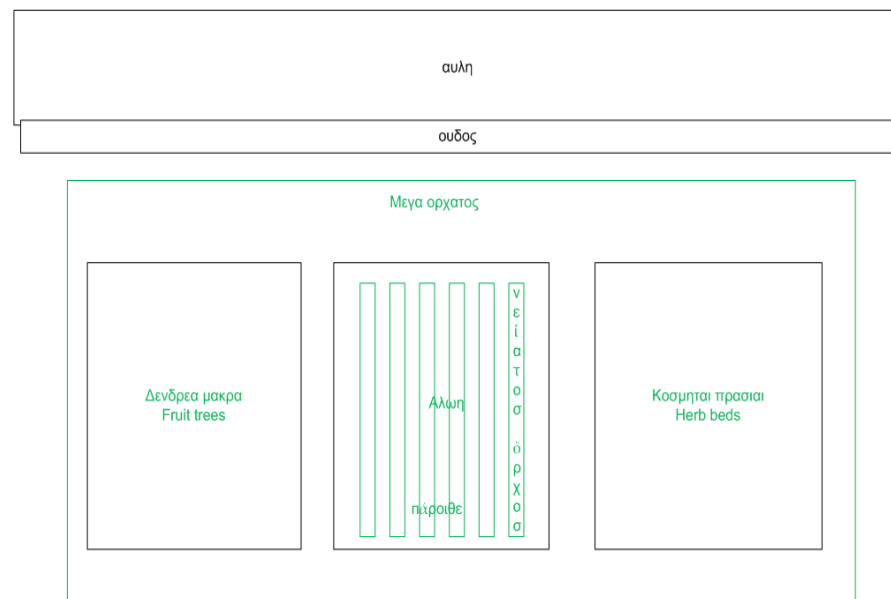


Fig. 6.5 Alkinoos' garden arrangement A

Figure 6.5 is a left-to-right arrangement. The arrangement could equally well be as in figure 6.6 (right to left).

³⁹⁵ Levinson, *Space in Language and cognition*, p98 and fig 3.6 on p99.

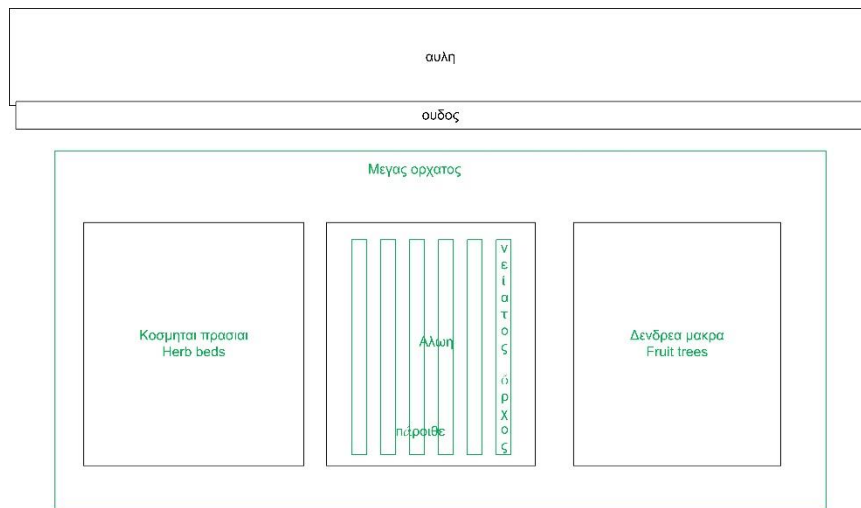
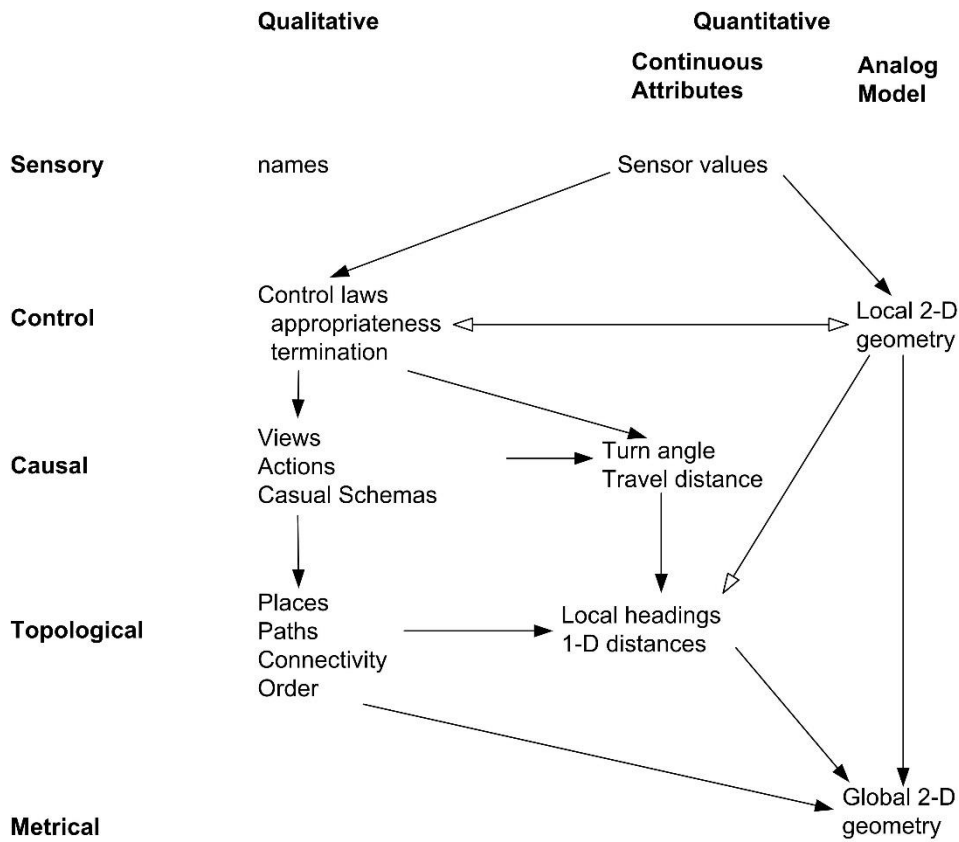


Fig. 6.6 Alkinoos' garden arrangement B

In conclusion, the passage is remarkable for the absence of any perspective, for the lack of an absolute frame of reference and absence of any left/right or near/far information with respect to the viewer Odysseus.



The distinct representations of the Spatial Semantic Hierarchy. Closed-headed arrows represent dependencies; open-headed arrows represent potential information flow without dependency.

Figure 6.7 Kuipers' Spatial Semantic Hierarchy (SSH). Reproduced from Benjamin Kuipers, 'The Spatial Semantic Hierarchy' *Artificial Intelligence* 119 (2000): 191-233 Fig. 1 p194.

Chapter 7

A controversial passage:

Herodotos' Egyptian labyrinth description 2.148

7.1 Preliminary – a short passage of survey description

Before beginning the main subject of this chapter, the description of a building complex, I take a short detour to discuss a shorter passage from Book 2 of the *Histories*. The passage is part of the general description of the topography of Egypt which occurs near the beginning of Book 2, the Egyptian *logos*.³⁹⁶

ἀπὸ δὲ Ἡλίου πόλιος ἄνω ἰόντι στεινή ἐστι Αἴγυπτος. τῆ μὲν γὰρ τῆς Ἀραβίης ὄρος παρατέταται, φέρον ἀπ' ἄρκτου πρὸς μεσαμβρίας τε καὶ νότου, αἰεὶ ἄνω τεῖνον ἐς τὴν Ἐρυθρὴν καλεομένην θάλασσαν· ἐν τῷ αἰλιθοτομίαι ἔνεισι αἰ ἐς τὰς πυραμίδας κατατμηθεῖσαι τὰς ἐν Μέμφι. ταύτη μὲν λῆγον ἀνακάμπτει ἐς τὰ εἴρηται τὸ ὄρος· τῆ δὲ αὐτὸ ἐωυτοῦ ἐστι μακρότατον, ὡς ἐγὼ ἐπυνθανόμην, δύο μηνῶν αὐτὸ εἶναι τῆς ὁδοῦ ἀπὸ ἡοῦς πρὸς ἐσπέριν, τὰ δὲ πρὸς τὴν ἠῶ λιβανωτοφόρα αὐτοῦ τὰ τέρματα εἶναι.

Hdt. 2.8

From Heliopolis inland Egypt is narrow. On the Arabian side a mountain stretches alongside, running from north to midday in a southerly direction, stretching continuously inland to the sea named the Erythrean; in this range are situated the stone quarries which were excavated in making the pyramids, that is, those at Memphis. At this point the range stops and turns toward the regions mentioned; and in this direction³⁹⁷ it has its greatest extent, as I discovered, it being a two months' journey from sunrise to sunset, and the frankincense-bearing regions toward the sunrise form its end.

³⁹⁶ Earlier commentators and editors tended to think in terms of a 'history with digressions'; such accounts on specific topics were called *logoi*. An example from a late nineteenth-century edition by an anonymous editor expresses it thus: 'When Egypt came, with the accession of Cambyses, into the history of the Persian wars, Herodotos must needs tell what that Egypt was, for he liked to be thorough'. ('H.M.' in the Introduction to *Egypt and Scythia described by Herodotos*, Cassell & Co London, 1893, p7).

³⁹⁷ I am indebted to one of the examiners of this thesis for pointing out that τῆ, in the phrase τῆ δὲ αὐτὸ ἐωυτοῦ ἐστι μακρότατον has a more specific meaning than my earlier translation of 'there' suggested.

There is difficulty on a couple of points of interpretation for this passage, and some interest lies also in particular visualisation used and especially the verbs used with τὸ ὄρος (τεῖνον λήγον ἀνακάμπτει). μακρότατον appears to refer to the length of the mountain range but is sometimes translated as though it referred to the breadth of Egypt. Lloyd simply refers the passage to the influence of the pelekus theory;³⁹⁸ which seems to originate with Hekataios ap. ps-Skylax 106.3 who refers to ἡ Αἴγυπτος τοιάδε τὴν ιδέαν ὁμοία πελέκει.³⁹⁹ Indeed Herodotos indicates with ὡς ἐγὼ ἐπυνθανόμην that he has this from someone else, not his own travel and observation – at the same time he chooses to use his own descriptive words for the geographic features which to him define the shape of Egypt. Herodotos summarises Egypt itself at the end of the same section (ἐστὶ στενὴ Αἴγυπτος ... τὸ δ' ἐνθεῦτεν αὖτις εὐρέα Αἴγυπτος ἐστὶ).

The language used makes this a survey style of description as shown by its placing of features in relation to each other by means of an absolute frame of reference represented by North-South-East-West.⁴⁰⁰ The phrase ἄνω ἰόντι appears to presage a route description but its usage here and elsewhere in Herodotos (2.7.4, 2.29.2, 4.18) is as a general expression for inland as a direction; rather than a descriptive choice of route.

Lloyd's notes on this passage in his 1975 commentary begin, as mentioned, with the statement that 'this is the *pelekus* theory of the geography of Egypt'⁴⁰¹ and then proceeds with detailed analysis of Herodotos's waist, that is, the length of the narrow part. Lloyd thinks Herodotos got the general idea of the pelekus shape and modified it because of something he saw. If he were not modifying anything of a supposed Hekataian description of the configuration of Egypt, and given that Hekataios is assumed to have mapped the world including this part, we would expect Herodotos's description to be in fact a description of a map. There would not necessarily be anything specific in the language which would definitively tell us that he was

³⁹⁸ Lloyd, *Herodotus Book II Commentary* 99–182, ad loc. The *pelekus* theory of Egypt, associated with Hekataios and ps-Skylax, determines that Egypt, considered longitudinally N-S, was wide-narrow-wide in the shape of a double-bladed axe, a *pelekus*; also see David Asheri, A.B.Lloyd, Aldo Corcella, *A Commentary on Herodotus: Books I-IV*, Oxford University Press, Oxford, 2007, p248.

³⁹⁹ *Pseudo-Skylax's Periplus: the circumnavigation of the world*. Text, translation and commentary. Graham Shipley (ed.), Exeter, Bristol Phoenix, 2011.

⁴⁰⁰ This is true even though, as Lloyd points out (*Herodotus Book II Commentary* 99-182., p49), Herodotos' absolute directions are a combination of astronomical schemes and wind directions.

⁴⁰¹ Lloyd, *Herodotus Book II Commentary* 99-182, p54.

describing Egypt from map knowledge because as we saw in the previous chapter it is a general competency to produce sketch maps from descriptions and descriptions from sketch maps.

There is however one small detail: we can read a specific orientation from the rest of the language. That Herodotos is looking south is suggested by phrase order in the second sentence ἀπ' ἄρκτου πρὸς μεσαμβρίας τε καὶ νότου (from north to midday in a southerly direction). That this order represents his own orientation receives confirmation of the metaphor of the moving point which follows. This seems not to be a dead metaphor or standard language but rather an Herodotean visualisation of a point drawing a line from the words ταύτη μὲν λῆγον ἀνακάμπτει (in this place / at this point stopping it turns). We can see that the visualisation is of a point moving rather than a line fixed in space from the words λῆγον ἀνακάμπτει as only something moving has to stop in order to turn. The next phrase τῆ δὲ αὐτοῦ ἕωτοῦ ἐστὶ μακρότατον (in this direction it is at its longest) continues the linear image (taking τῆ as 'in this direction' rather than 'in this place').⁴⁰² We must suppose Herodotos is thinking of both the point and its result, the line; his travelling point, having turned, has drawn a line now in the West-East direction. If he is looking at a map – either mentally because he has previously seen one, or actually – λῆγον ἀνακάμπτει would be unmotivated. On balance therefore I conclude that he is not looking at one; and the word ταύτη tends to confirm this when taken with the preceding τῆ representing a progression “there” to “here” showing that Herodotos in imagination is first north of Heliopolis (so Heliopolis is “there”) then at the turning of the range (so the turning point is “here”).

7.2 The labyrinth description

Near the end of the Egyptian *logos* Herodotos describes a vast building complex at Lake Moeris which he calls ‘labyrinth’. There is no agreement about what the building was. Herodotos comments that the labyrinth is beyond words (λόγου μέζω 2.148.1) but, nothing daunted, goes on to introduce it via its major structures and their orientation. In the rest of this chapter I explore the multi-dimensional modern

⁴⁰² And making it certain that μακρότατον can be taken in its usual sense of linear measure, rather than ‘broadest’ as Waddell does. (W.G. Waddell, *Herodotos Book II*, Methuen, London, p125.) The reading ‘in this direction’ (for which I am indebted to one of my thesis examiners) has the advantage that it makes better sense of the subsequent phrase - as referring to the part of the mountain range after the bend, which is the part which runs east-west, as being the longest part, i.e. that stretch of the range is longer than the stretch running inland (south) from Heliopolis.

commentary on the Herodotean description and review the nature of the descriptive language itself.⁴⁰³ I quote the passage in full here for reference.

148. καὶ δὴ σφι μνημόσυνα ἔδοξε λιπέσθαι κοινῇ, δόξαν δέ σφι ἐποίησαντο λαβύρινθον, ὀλίγον ὑπὲρ τῆς λίμνης τῆς Μοίριος κατὰ Κροκοδείλων καλεομένην πόλιν μάλιστα κη κείμενον· τὸν ἐγὼ ἤδη εἶδον λόγου μέζω. [2] εἰ γάρ τις τὰ ἐξ Ἑλλήνων τείχεά τε καὶ ἔργων ἀπόδεξιν συλλογίσαιτο, ἐλάσσοнос πόνου τε ἂν καὶ δαπάνης φανείη ἐόντα τοῦ λαβυρίνθου τούτου. καίτοι ἀξιόλογός γε καὶ ὁ ἐν Ἐφέσῳ ἐστὶ νηὸς καὶ ὁ ἐν Σάμῳ. [3] ἦσαν μὲν νυν καὶ αἱ πυραμίδες λόγου μέζονες, καὶ πολλῶν ἐκάστη αὐτέων Ἑλληνικῶν ἔργων καὶ μεγάλων ἀνταξίη, ὁ δὲ δὴ λαβύρινθος καὶ τὰς πυραμίδας ὑπερβάλλει· [4] τοῦ [γὰρ] δωδέκα μὲν εἰσὶ αὐλαὶ κατάστεγοι, ἀντίτυλοι ἀλλήλησι, ἐξ μὲν πρὸς βορέω ἐξ δὲ πρὸς νότον τετραμμένοι, συνεχέες· τοῖχος δὲ ἔξωθεν ὁ αὐτός σφεας περιέργει. οἰκήματα δ' ἔνεστι διπλᾶ, τὰ μὲν ὑπόγαια τὰ δὲ μετέωρα ἐπ' ἐκείνοισι, τρισχίλια ἀριθμόν, πεντακοσίων καὶ χιλίων ἐκάτερα. [5] τὰ μὲν νυν μετέωρα τῶν οἰκημάτων αὐτοὶ τε ὠρῶμεν διεξιόντες καὶ αὐτοὶ θεησάμενοι λέγομεν, τὰ δὲ αὐτῶν ὑπόγαια λόγοισι ἐπυνθανόμεθα· οἱ γὰρ ἐπεστεῶτες τῶν Αἰγυπτίων δεικνύναι αὐτὰ οὐδαμῶς ἠθέλον, φάμενοι θήκας αὐτόθι εἶναι τῶν τε ἀρχὴν τὸν λαβύρινθον τούτον οἰκοδομησαμένων βασιλέων καὶ τῶν ἱρῶν κροκοδείλων. [6] οὕτω τῶν μὲν κάτω περὶ οἰκημάτων ἀκοῆ παραλαβόντες λέγομεν, τὰ δὲ ἄνω μέζονα ἀνθρωπῆων ἔργων αὐτοὶ ὠρῶμεν· αἱ γὰρ ἔξοδοι διὰ τῶν στεγῶν καὶ οἱ εἰλιγμοὶ διὰ τῶν αὐλέων ἐόντες ποικιλώτατοι θῶμα μυρίον παρείχοντο ἐξ αὐλῆς τε ἐς τὰ οἰκήματα διεξιούσι καὶ ἐκ τῶν οἰκημάτων ἐς παστάδας, ἐς στέγας τε ἄλλας ἐκ τῶν παστάδων καὶ ἐς αὐλὰς ἄλλας ἐκ τῶν οἰκημάτων. [7] ὀροφή δὲ πάντων τούτων λιθίνη κατὰ περ οἱ τοῖχοι, οἱ δὲ τοῖχοι τύπων ἐγγεγλυμμένων πλέοι, αὐλὴ δὲ ἐκάστη περίστυλος λίθου λευκοῦ ἀρμοσμένου τὰ μάλιστα. τῆς δὲ γωνίης τελευτῶντος τοῦ λαβυρίνθου ἔχεται πυραμὶς τεσσαρακοντόργυιος, ἐν τῇ ζῶα μέγала ἐγγέγλυπται· ὁδὸς δ' ἐς αὐτὴν ὑπὸ γῆν πεποιήται.

⁴⁰³ The complex consisting of the labyrinth and pyramid together is comparable to the compartmentalised garden of Alkinoos (discussed in chapter 10).

149. τοῦ δὲ λαβυρίνθου τούτου ἐόντος τοιοῦτου θῶμα ἔτι μέζον
παρέχεται ἢ Μοίριος καλεομένη λίμνη ...

And indeed they decided that a memorial to them should be left in common and, the thought being father to the deed,⁴⁰⁴ made themselves a labyrinth, a little above Lake Moeris at the city called Crocodilopolis or pretty near; of what I have seen so far it is beyond description. [2] For if one were to add together the walls by Greeks and the building effort of their monuments, they would turn out to be less work and less expensive than this labyrinth. Yet it is true that both the temple at Ephesos and that at Samos are considerable. [3] Now the pyramids alone were beyond description and each was equivalent to many large buildings put up by the Greeks themselves, but the labyrinth surpasses even the pyramids. [4] It has twelve roofed courtyards, gates facing each other, six oriented to the north and six to the south, and contiguous; and a wall outside which itself encloses them [functions to enclose them]. The rooms are duplicated, some below ground and some above ground over them, three thousand in number, one thousand five hundred in each level. [5] Now the above-ground section of rooms I have seen and been through myself and having viewed them can speak about them, and the underground parts I have learned about by report; for the Egyptians in charge did not at all wish to show them declaring that the burials were there of the kings who had originally built this labyrinth and of the sacred crocodiles. [6] So I can tell what I learned about the chambers underneath from hearsay, but the upper parts of the bigger-than-human buildings I saw myself; and the exits through the chambers and the passages going off through the courtyards, are very intricate and present an infinity of surprises and they lead from courtyard to the chambers and from the chambers to colonnades and to other chambers from the colonnades and to other courtyards from the chambers. [7] The roofing of all these is of stone just as the walls are, and the walls are full of carved figures, and each courtyard [has] a colonnade of white stone fitted absolutely perfectly. And next to the corner as the labyrinth ends is situated a pyramid measuring 40 fathoms [in height] on which are carved huge living figures; a path to it has been made

⁴⁰⁴ Translated in this way because I suspect irony here (and perhaps in whole passage).

underground. **149.** And though the marvel of this labyrinth is so great, the lake which is called Lake Moeris is a still greater ...

The main problem in deciding what the passage means is a modern one: commentators have tended first to establish from other evidence what Herodotos may have been writing about and then decided whether his description is accurate. The building complex, let us call it, consisting of labyrinth and pyramid, which Herodotos saw was apparently an extremely intricate one, difficult to comprehend from its size as well as from its unfamiliarity as a building type; and these factors are in addition to the difficulties which he must have had everywhere he went in Egypt caused by the necessity of communicating through interpreters.⁴⁰⁵ Can it be established what is being described by Herodotos? In the words of O. Kimball Armayor:

We have to deal here with some kind of great impressive building, near some kind of great impressive artificial-looking waters, by some crocodile city or other, and evidently adjacent, somehow, to some manner of pyramid.⁴⁰⁶

Armayor here is not belabouring an ironic approach to Herodotos but rather giving very neatly the parameters of the Labyrinth passage. His study *Herodotos' Autopsy of the Fayoum*, from which this succinct statement comes, is a major contribution not only to historiographic questions of the *Histories*, but also to the idea of autopsy as historical evidence. Herodotos' discursive, fact-filled generous style throughout the *Histories* makes it difficult to identify the topic of any given passage. The account of the labyrinth, which I have chosen as an example of a small-scale space, is not interpreted in the same way by any two commentators. Armayor's study treats the various evidential difficulties in the passage and the methods commentators have used to untangle them.

A. H. Sayce thinks it 'must have had the shape of a horseshoe ... with a large inner court'. Sayce's language, in an essay on 'Egypt' appended to his edition of the text, is curiously reminiscent of Herodotos': Egypt, he says, 'is confined to the narrow strip

⁴⁰⁵ See the remarks on oral versus written communication in Asheri, *Commentary on Herodotus*, pp18–19.

⁴⁰⁶ O. Kimball Armayor, *Herodotos' Autopsy of the Fayoum: Lake Moeris and the Labyrinth of Egypt*, Gieben, Amsterdam, 1985, p117.

of mud which lines both sides of the river, and is bounded by low hills of limestone, or the shifting sands of the desert.⁴⁰⁷ Talboys Wheeler, after giving a rational translation of the whole of 148 (in reality a translation but with the surface change of conversion to a third-person account) continues: ‘The foregoing description is rendered doubly interesting at the present moment, from the circumstance of the remains of the labyrinth having been recently explored by the Prussian Expedition, sent out under the direction of Dr Lepsius’.⁴⁰⁸ What Lepsius reports (retailed by Wheeler) is

three mighty clumps of buildings, surrounding a square 600 feet long, and 500 feet wide. The fourth side is bounded by the pyramid, which is 300 feet square, and therefore does not come up to the wide wings of the great building. The square included two ranges of halls, which were probably separated from each other by a wall, and thus had their faces turned in opposite directions towards the innumerable chambers of the labyrinth, which formed the sides of the quadrangle. This square is covered with the remains of great monolithic pillars of fine red granite, in the old Aegyptian style with lotus-bud capitals. Fragments of this costly material also lie about, and show that it had been also used for shrines and statues. Numerous columns are also to be seen, of hard white limestone, gleaming like marble, which had been brought from the Mokattam quarries. Of the chambers there are literally hundreds, by and over each other, often very small, by the side of others larger and greater, supported by pillars, and with thresholds, niches and remains of pillars, and single wall slabs, and connected together by corridors, according to the description of Herodotos, without any serpentine, cave-like windings. We may however reasonably doubt whether there were really 3000 chambers, as Herodotos mentions; for the exactness of the statement must entirely rest on the fidelity of his guides. He himself was evidently in a state of utter

⁴⁰⁷ A. H. Sayce, *The Ancient Empires of the East: Herodotos I-III. With notes, introductions and Appendices*, London, MacMillan, 1883, pp 209 & 307. Larcher similarly: ‘An architect, if requested to draw a plan of the labyrinth from the description of Herodotos, I think, would be rather puzzled.’ and then offers definitions of the technical words following Wytttenbach (P-H Larcher, *Larcher's notes on Herodotos: Historical and Critical Comments on the History of Herodotos, with a chronological table. New Edition, with corrections and editions by William Desborough Cooley*. London. Whitaker & Co. 1844. Vol 1., p380).

⁴⁰⁸ J Talboys Wheeler, *The Geography of Herodotos*, 1854, London, Longman, Brown, Green & Longmans, pp424-427.

bewilderment, and only came away with a vague impression of “no end” of halls, chambers, colonnades and corridors. [Wheeler, pp425–6]

The structure of this description by Lepsius is like that of Herodotos in only one respect: that the macro level is specified first, followed by the innards of the layout. Lepsius’ account is also structured by giving names to the major parts of the complex (‘The square’, ‘ranges of halls’) which makes it possible to state their arrangement and positions relative to each other. In the middle of the passage his style in the underlined phrases is reminiscent, presumably deliberately, of Herodotos in its syndetic parataxis, which gives such vividness (if not much precision): ‘by the side of others larger and greater, supported by pillars, and with thresholds, niches and remains of pillars, and single wall slabs, and connected together by corridors’. What Lepsius is able to denote with ‘three mighty clumps of buildings’ Herodotos refers to only as a wall τοῖχος (148.4); and since Herodotos’ is a wall the next clause about οἰκήματα for which a generalising translation is ‘chambers’ is usually taken to denote chambers within the set of six plus six ἀύλαι.

Another editor of Book 2, post Lepsius’ excavations was W.G. Waddell who envisages two groups of six ἀύλαι which are covered, each group facing onto a corridor. He glosses κατάστεγοι: ‘not open as usual (ὑπαίθριοι), but receiving light from the corridor which each group of six faced.’; but Waddell too may have been influenced by residence in Egypt.⁴⁰⁹

A.B. Lloyd, whose 3-volume commentary is the most recent and fullest on Book 2, uses Herodotos’ description and adds material from other Greek writers, especially Strabo, to reconstruct a probable labyrinth.⁴¹⁰ Lloyd’s commentary overall is intended to illuminate the historical matter of a work which ‘constitutes and indispensable part of our source material both for the study of the physical context of Egyptian civilization and for divining and grasping its intellectual and spiritual content.’⁴¹¹ In places the commentary bypasses Herodotos’ description in favour of the combined testimony of archaeological evidence and ‘our knowledge of Eg[yp]tian] architectural

⁴⁰⁹ To which he refers at pv (Herodotos Book II, Edited by W G Waddell, Methuen, London, 1939).

⁴¹⁰ Lloyd, *Herodotus Book II Commentary* 99-182 lists the Greek sources on p121.

⁴¹¹ Lloyd, *Herodotus Book II Commentary* 1-98, px.

practice'.⁴¹² Therefore his notes on this passage have the aim of distinguishing primarily what we know about the labyrinth and only secondarily what Herodotos knew about it. Unsurprisingly therefore Lloyd dismisses Herodotos' specification of a pyramid placed at the corner of the labyrinth as a natural slip of memory combined with possibly inadequate notes, preferring a modern report that it was 'symmetrically disposed about the line of its axis'.⁴¹³ Lloyd supplies a conjectural reconstruction diagram (figure 7.1) which shows the plan of a rectangular building of two halves.⁴¹⁴ The two halves are put together by Lloyd himself by combining the account of Herodotos with the account of Strabo. But there is an inconsistency in Lloyd's argument here: the front half Herodotos saw and described (that with the ἀύλαί), without knowing about the back half; the back half Strabo saw and described, without knowing about the front half (which had disappeared before his time). But on this account the pyramid was approximately 150m away from the 'dividing wall' which was the limit of Herodotos' knowledge and the explanation for why he said it was τῆς δὲ γωνίης τελευτῶντος τοῦ λαβυρίνθου ἔχεται needs to be reconsidered.

⁴¹² Lloyd, *Herodotus Book II Commentary 99-182* reconstruction diagram on p122.

⁴¹³ Lloyd, *Herodotus Book II Commentary 1-98*, p23.

⁴¹⁴ Lloyd, *Herodotus Book II Commentary 99-182*, Fig I, p122; also in Asheri, *Commentary*, p349. Unfortunately in reproducing the diagram and converting dimensions from feet to metres spurious precision has been created.

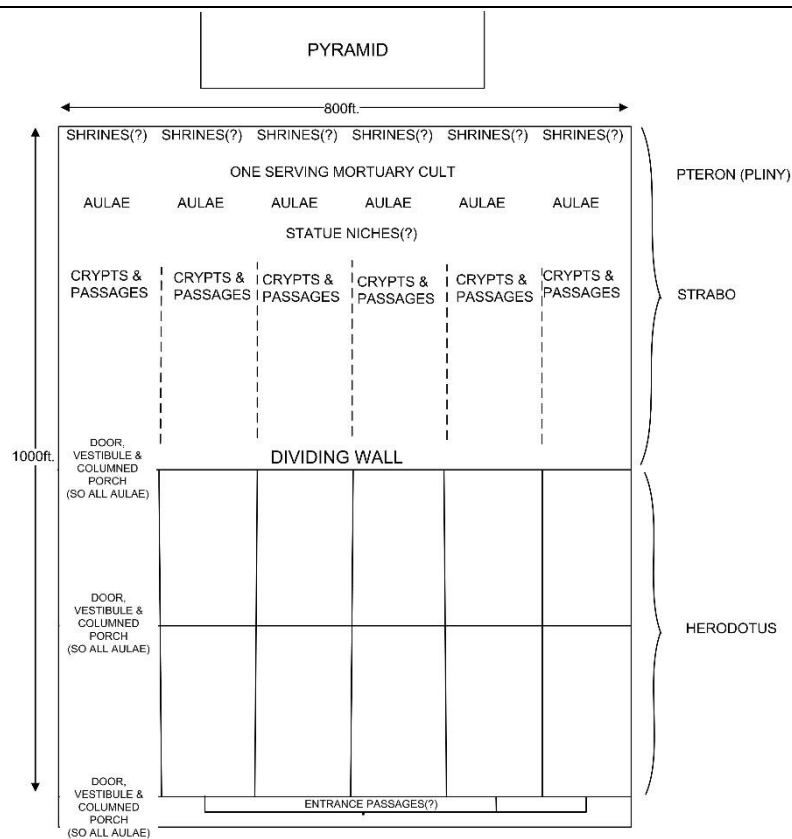


Figure 7.1 ‘The Labyrinth, sketch plan’ reproduced from Lloyd, *Herodotus Book II Commentary 99-182, Figure 1, p122.*

O. Kimball Armayor makes a persuasive case for a re-reading of Herodotos’ Lake Moeris and labyrinth description which would take into account a much more sophisticated appreciation of his ‘sources’ than has usually been the case,⁴¹⁵ observing that Herodotos’ work has usually been seen as ‘nothing but a simple-minded tourist’s report’.⁴¹⁶ Armayor takes as his text the archaeological reports of the 19th and 20th centuries and analyses their interpretations. He notes a strong tendency to circular argument between Herodotos scholars and archaeologists, which has confused the issue even of whatever remains could be seen on the ground at the time. According to Armayor, Petrie, who excavated the Hawara site in 1889, based his assessment too much on ‘an un-critical reading of Herodotos and Strabo’,⁴¹⁷ and Petrie was followed by others:

⁴¹⁵ See O. Kimball Armayor, ‘The Homeric Influence on Herodotos’ Story of the Labyrinth’ *Classical Bulletin* 54 (1977-78): 68-72 and the detailed argument set out in Armayor, *Autopsy*.

⁴¹⁶ Armayor, *Autopsy*, p120.

⁴¹⁷ Armayor, *Autopsy*, p130.

Successive generations of Egyptologists followed Petrie in his assumption of a single great temple at Hawara and also in his assumptions on the ground-plan.⁴¹⁸

Armayer points out that Petrie himself says that the form of the building he excavated at Hawara could not be recovered ('from such very scanty remains it is hard to settle anything'⁴¹⁹) yet he (Petrie) does reconstruct a good deal of the building: the position of the entrance facing south, niches for statues, size, shape and other aspects of ground plan. Armayer shows that Petrie's reconstructions were all unduly influenced by Herodotos and later Greek authors. In short, Petrie's evidence, though his dig was done 'more carefully' for the Labyrinth, is a circular argument and is of no more value than that of the investigators of the eighteenth and nineteenth centuries who preceded him. Armayer presents a remarkable story of unconscious tradition of influence by and among archaeologists on non-digging Egyptologists such as I.E.S. Edwards. Edwards trained as an orientalist, became a specialist in Egyptian hieroglyphics and wrote a popular book on the pyramids. Armayer shows to what extent Edwards accepted Petrie's assessment of the nature of the building at Hawara,⁴²⁰ an influence not unnatural however given Edwards' background. Armayer has identified circularity of argument in two senses: within Petrie's work and within the larger scholarship which attempts to reach a consensus on the nature of the Labyrinth and its position. He contends that Petrie's conclusions are suspect because they 'often rest on an un-critical reading of Herodotos and Strabo'. His further argument that 'Whatever else Herodotos' Labyrinth may have been it was never real'⁴²¹ is significant because it frees us to consider afresh the descriptive language Herodotos uses.

7.3 Analysis of Language

On the labyrinth passage of 2.148 as an analytic description, How and Wells are succinct: 'It would be impossible to construct a building according to the description

⁴¹⁸ Armayer, *Autopsy*, p115. Armayer's discussion of Petrie's reconstruction (in two books: *Hawara, Biahmu and Arsinoe* (1889) and *The Labyrinth, Gerzeh, and Mazguneh* (1912)) in *Herodotos' Autopsy of the Fayoum*, pp41-49.

⁴¹⁹ Armayer, *Autopsy*, p46, citing W. Flinders Petrie, *The Labyrinth, gerzeh, and Mazguneh*, London 1912, p29.

⁴²⁰ Armayer, *Autopsy*, p115. On Edwards see H. S. Smith, 'Edwards, (Iorwerth) Eiddon Stephen (1909-1996)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [<http://www.oxforddnb.com/view/article/70768>, accessed 3 Nov 2011].

⁴²¹ Armayer, *Autopsy*, p116.

of [Herodotos]’ and they add the nice remark that ‘it is obvious that a “labyrinth” defies description’.⁴²² Nevertheless in this section I offer my own analysis of the mechanics of the description, ignoring extrinsic evidence and assumptions about what Herodotos was looking at.

Herodotos introduces the thing to be discussed as λαβύρινθον ‘a labyrinth’, that is, without definite article or other qualification, so that we can infer that the idea but not this example of it was expected to be familiar to his Greek readers. He next states its location with respect to two landmarks: Lake Moeris and the city of the Crocodiles. Next, in paragraphs two and three, the labyrinth is stated to be big by two standards: walls in Greece and the pyramids (of Egypt). Only after approximately 100 words of comparison do we come to statements concerning the structure of it:

τοῦ [γάρ] δωδέκα μὲν εἰσὶ ἀύλαι κατάστεγοι, ἀντίπυλοι ἀλλήλησι, ἔξ
μὲν πρὸς βορέω ἔξ δὲ πρὸς νότον τετραμμέναι, συνεχέες. [2.148.4]

Herodotos states the major parts and their arrangement, employing an absolute frame of reference (north-south). Here is the copular verb εἶναι typical of survey description; and the typical association remarked by Tversky of a survey description making use of an absolute frame of reference (πρὸς βορέω and πρὸς νότον). The ἀύλαι are in two groups which have spatial relation to each other – a ‘gate-facing’ relationship. This layout is surrounded by a wall (τοιῖχος δὲ ἔξωθεν ὁ αὐτός σφραγισθεὶς περιέργει) placing one object in relation to another continues the survey style of description. Two rows of contiguous (συνεχέες) spaces aligned opposite each other: it is gates which are aligned (ἀντίπυλοι).⁴²³

The next level of description – 1500 chambers mirrored above and below ground – is not simplified but presented as a traveller sees it: rooms give onto colonnades which give onto more rooms which have their own colonnades. This conveys the sense that anyone entering and exploring such a place would indeed get lost, not only because the units of it are so many but because they are repeated.

⁴²² W.W.How & J. Wells., *A Commentary on Herodotus*, 2 vols, Oxford University Press, Oxford, 1928, vol. 1, p241.

⁴²³ A word which occurs only here in the extant Greek corpus (from a search was performed on TLG on 4/2/2011).

To ἀντίπυλοι as a technical term we can add ἀύλαι κατάστεγοι. ἀύλαί, the common term for a colonnade attached to a building, is clear enough, but its qualification by κατάστεγοι makes the nature of the structure unclear.

Then we have the statement that there are rooms above and below; but where are the οἰκήματα in relation to the previously mentioned structures? Herodotos goes on to explain that he tried to see the whole complex but the Egyptian gatekeepers would not allow him to see the below ground part. He says – twice – that he saw the above-ground οἰκήματα himself; and what follows is not a survey style, rather it is organised mainly as a gaze tour. When he is casting his sentence as a spatial proposition, a spatial adverbial precedes the subject. This is the special identifying characteristic of a gaze tour:

τῆς δὲ γωνίης τελευτῶντος τοῦ λαβυρίνθου	ἔχεται	πυραμῖς
----- spatial adverbial -----		subject
[2.148.7]		

ἐν τῇ	ζῶα μεγάλα
[ἐγγέγλυπται]	
sp. adverbial -----	-- subject ---
[2.148.7]	

As we saw, Herodotos' description of the labyrinth and pyramid begins as a survey perspective: 2.148.4 the parts are named (ἀύλαι κατάστεγοι) and their orientation is given in an absolute frame of reference: ἐξ μὲν πρὸς βορέω ἐξ δὲ πρὸς νότον τετραμμέναι.⁴²⁴

Half-way through (6) Herodotos resumes description: at this point he has given up analytic description and offers instead a metonymic one. At this point, after twice assuring us that he has seen at least the upper rooms himself, we might have expected a switch to a route tour style of description.

⁴²⁴ Herodotos could have known this from the time of day and the position of the sun. And contrast this with the complete absence of an absolute FOR in the Odyssey description of Alkinoos' garden. In that case, an environment is supplied by the palace, so that the garden can be said to be located 'outside the courtyard (sc. of the palace)' (ἐκτοσθεν δ' ἀλλῆς μέγας ὄρχατος ἄγχι θυράων 7.112) when the garden is introduced.

αἱ τε γὰρ ἔξοδοι διὰ τῶν στεγέων καὶ οἱ εἰλιγμοὶ διὰ τῶν ἀυλέων ἐόντες ποικιλώτατοι θῶμα μυρίον παρείχοντο ἐξ ἀυλῆς τε ἐς τὰ οἰκήματα διεξιοῦσι καὶ ἐκ τῶν οἰκημάτων ἐς παστάδας, ἐς στέγας τε ἄλλας ἐκ τῶν παστάδων καὶ ἐς ἀυλὰς ἄλλας ἐκ τῶν οἰκημάτων. 2.148.6

and the exits through the chambers and the passages going off through the courtyards, are very intricate and present an infinity of surprises and they lead from courtyard to the chambers and from the chambers to colonnades and to other chambers from the colonnades and to other courtyards from the chambers.

But we can see that he has not switched perspective to a route tour style of description, as there is an absence of any dative of relation or first / second person verb. The other possibility is that this is a ‘gaze tour’ mode of description: that is, to the language of the ‘tour’ is added pseudo-movement from a single viewer position, as when someone surveys a space by systematically turning his gaze from one part to another. Thus the innards of the building in 2.148.4 (ἐξ ἀυλῆς τε ἐς τὰ οἰκήματα διεξιοῦσι καὶ ἐκ τῶν οἰκημάτων ἐς παστάδας, ἐς στέγας τε ἄλλας ἐκ τῶν παστάδων καὶ ἐς ἀυλὰς ἄλλας ἐκ τῶν οἰκημάτων) are described in such a way that each element is a landmark standing in the stated relation (always the same relation!) to the last-mentioned landmark.⁴²⁵

There are only two finite verbs: διεξιοῦσι and παρείχοντο. The first, παρείχοντο, structures only a parenthetical comment (οἱ εἰλιγμοὶ διὰ τῶν ἀυλέων ἐόντες ποικιλώτατοι θῶμα μυρίον παρείχοντο = the passages going off through the courtyards are extremely intricate and presented a myriad wonders). διεξιοῦσι is therefore left to do all the work of spatial description. διεξιοῦσι (from διέξιμι) is a path-encoded verb which can be transitive, or take a preposition (often διὰ, but also κατά / ὑπό) which specifies which of several paths the figure is moving along with respect to the ground. In this case we have a series of path expressions specified simply by source and goal: ἐξ <source> ἐς <goal>. In fact, as both How and Wells in

⁴²⁵ The site was excavated and reported by Petrie, even the ground plan is not certain because of the presence of mounds of loose limestone chips; and there is now no evidence of the interior arrangement of rooms.

the commentary (ad loc.) and Lloyd point out, οἱ εἰλιγμοὶ probably does not mean ‘winding passages’, and this may indicate why there is a schism between Herodotos’ perfectly clear opening statement and what we actually get in the passage quoted above. After mentally noting that the two parallel rows of courtyards, we expect to hear where the 1500 rooms are located in relation to this large structure. The grammatical subject of διεξιῶσι is still οἱ εἰλιγμοί, which has the basic sense of winding, carried over from the previous clause. The issue is whether it refers to an actual physical passage or winding journey. How and Wells translate οἱ εἰλιγμοί as ‘the goings this way and that’ – a slightly clumsy expression to make clear that they think different directions are encompassed in the term. Lloyd suggests that it refers to the journey through a passage or passageways, therefore to the shape of that journey.⁴²⁶ The word in any case does not occur before Herodotos so this passage is relevant to establishing its meaning.⁴²⁷

He returns to a survey view at the end of the passage with the statement that there was a pyramid at the corner:

τῆς δὲ γωνίης τελευτῶντος τοῦ λαβυρίνθου ἔχεται πυραμῖς
 τεσσαρακοντόργυιος [2.148.7]
 at the corner where the labyrinth ends a pyramid adjoins it of 40 orguias

This is another expression whose exact import is disputed. ‘Where the labyrinth ends’ is an odd expression – if ‘labyrinth’ refers to the simple rectangular macro structure given at 2.148.4. It would on the other hand be a perfectly natural expression for the end of a structure in the unwound ball of string sense. The trouble lies both with the meaning of γωνίη and the expression τελευτῶντος τοῦ λαβυρίνθου. γωνίη is not extant before Herodotos, who uses it elsewhere twice: both uses referring to the placement of portable objects in a temple and both differing from our example in being ἐπὶ τῆς γωνίης.

1.51.2 ὁ δὲ ἀργύρεος ἐπὶ τοῦ προνηίου τῆς γωνίης,
 And the silver one in the corner of the pronaos

⁴²⁶ Alan B Lloyd, ‘The Egyptian Labyrinth’ *Journal of Egyptian Archaeology* 56 (1970): 81-100, p83.

⁴²⁷ Noted by Powell, *Lexicon*, ad loc.

8.122 Αἰγινῆται δὲ πυθόμενοι ἀνέθεσαν ἀστέρας χρυσοῦς, οἱ ἐπὶ ἰστοῦ χαλκείου
 ἐστᾶσι τρεῖς ἐπὶ τῆς γωνίης, ἀγχοτάτω τοῦ Κροίσου κρητῆρος
 The Aiginetans when they learned this dedicated gold stars and the three of
 them stand on a bronze mast in the corner, closest to the bowl of Croesus

ἐπί plus the genitive as a spatial prepositional phrase used in these passages is a candidate for being considered the ‘basic locative construction’ (BLC) for Greek. This is the construction which Levinson and Wilkins propose as the form which will be used by default where the purpose is to express the location of some object.⁴²⁸ They propose that the BLC exists as a first-choice construction which will be preferentially employed where the figure-ground relationship possesses certain properties: relatively close contact between figure and ground, inanimate figure / ground, and a stereotypical relation between figure and ground.⁴²⁹ In both the comparison passages ἐπὶ τῆς γωνίης occurs within a description of specifically Greek practice in a Greek space (a temple) and refer to placement of valuable objects within that space; we therefore can be reasonably certain that we know what spatial relationships Herodotos is describing. If we regard ἐπί plus genitive as the BLC it is not surprising to find it used here. The other difference between these occurrences and ours in the labyrinth passage is that γωνίη in these cases specifies the inside corner of a rectangular space whereas at 2.148 it refers to an outside corner (admittedly an argument from probability). The meaning in our passage at 2.148.7 cannot be the same: if Herodotos had meant in the corner he could have used ἐπὶ τῆς γωνίης as he did in the comparison passages. Since the usage in our passage at 2.148 is without ἐπί, another interpretation is at least possible. The meaning in our passage is either ‘next to the corner’ (ἔχεται in the passive as locative)⁴³⁰ or, as is more likely in my opinion, ‘at an angle’. Herodotos is then saying the pyramid is not aligned parallel or perpendicular to the end of the rectangular labyrinth (see figure 8.2).⁴³¹

⁴²⁸ Stephen Levinson and David Wilkins (eds.), *Grammars of Space: Explorations in cognitive diversity*, Cambridge University Press, Cambridge, 2006. The Basic locative construction proposal set out on pages 514–519. The study overall is based on a corpus of twelve languages.

⁴²⁹ Levinson & Wilkins, *Grammars of Space*, p515.

⁴³⁰ 46 occurrences in this local meaning are given by Powell, *Lexicon*,. Meaning C. 1., though the first citation for this meaning (ἔχεται δὲ τῆς νήσου λίμνην μεγάλην at 2.29.4), does not inspire confidence that we know what spatial thinking Herodotos is doing here, especially as Lloyd glosses ‘Whether regarded as referring to Philae or Djerar this statement could only indicate a broadening of the river as it passed on either side of the island’ (Lloyd, *Commentary*, 1-98, p121)

⁴³¹ If γωνίη here means ‘corner’ it clearly refers to an outside corner. Most commentators rely for a solution on the known position of the pyramid remains relative to the labyrinth. Stein draws the



Figure 7.2 Labyrinth and pyramid complex – macrostructure described at 2.148.1-3 & 2.148.7

Given ἐπί plus the genitive as the BLC it is neither surprising that it is used in 1.51.2 and 8.122 which describe the location of a portable object in a structure whose shape must be familiar to all Herodotos' readers, nor surprising that it should not be used in our passage describing a thoroughly unfamiliar building with unfamiliar configuration. Note that Herodotos devotes the first few sentences of 148 to emphasising that the labyrinth is not like Greek buildings:

σφι ἐποίησαντο λαβύρινθον ... τὸν ἐγὼ ἤδη εἶδον λόγου μέζω. [2.148.1]
 they made a labyrinth ... what I have seen of it to this point
 description

One of the difficulties Herodotos will have had in describing the internal configuration is that labyrinth was an inside-out version of a Greek temple. Where a Greek temple has a solid walled building surrounded by a colonnade, the labyrinth seems to have had external solid walls framing courtyards with colonnades around the inside as in a Roman peristyle house.

This mode of analysis by form of spatial reference is quite different from the archaeological fact recovery of Lloyd's *Commentary*. Lloyd discusses these 'difficult'

opposite conclusion; he says that the remains indicate the pyramid was at a slight angle with respect to the labyrinth, which would support my reading of τῆς γωνίης.

words – στέγη, εἰλιγμοὶ, παστάς⁴³² – which, if only we knew exactly what they signified, might constrain if not determine, the configuration of the building. I would add κατάστεγοι to this list. These are words for architectural parts which may have been adapted by Herodotos to fit the building he was describing: they are technical words whose meaning cannot be decided by context, even where we have some. Lloyd, however, makes an attempt, choosing, from the several meanings offered by LSJ, any which matches the known forms of Egyptian buildings.⁴³³ Herodotos uses παστάς elsewhere only at 2.169.5, so, taking on board the probabilities, Lloyd concludes that he is using the word for a columned porch. What is interesting to note about the passage at 2.169.5, which describes the tombs of Amasis and Apries, is the order of description, which is outside in.

169.[4] αἱ [sc. ταφαί] δὲ εἰσὶ ἐν τῷ ἱρῷ τῆς Ἀθηναίης, ἀγχοτάτω τοῦ μεγάρου, ἐσιόντι ἀριστερῆς χειρός. ἔθασαν δὲ Σαῖται πάντας τοὺς ἐκ νομοῦ τούτου γενομένους βασιλέας ἔσω ἐν τῷ ἱρῷ. [5] καὶ γὰρ τὸ τοῦ Ἀμάσιος σῆμα ἐκαστέρω μὲν ἐστὶ τοῦ μεγάρου ἢ τὸ τοῦ Ἀπρίεω καὶ τῶν τούτου προπατόρων, ἔστι μέντοι καὶ τοῦτο ἐν τῇ αὐλῇ τοῦ ἱροῦ, παστάς λιθίνη μεγάλη καὶ ἡσκημένη στύλοισι τε φοίνικας τὰ δένδρεα μεμιμημένοισι καὶ τῇ ἄλλῃ δαπάνῃ· ἔσω δὲ ἐν τῇ παστάδι διζὰ θυρώματα ἔστηκε, ἐν δὲ τοῖσι θυρώμασι ἡ θήκη ἐστί.

Since this is overall a survey style of description we can represent all features with boxes, thus:

⁴³² Lloyd, ‘The Egyptian Labyrinth’, p83. The difficulty is exemplified by the LSJ entry for παστάς which begins ‘porch in front of the house’ with citation these two Herodotos passages. He also gives an elegant translation of this passage (i.e. the whole of s148)

⁴³³ For example, see his note on αὐλαὶ κατάστεγοι (Lloyd, ‘The Egyptian Labyrinth’, p 82).

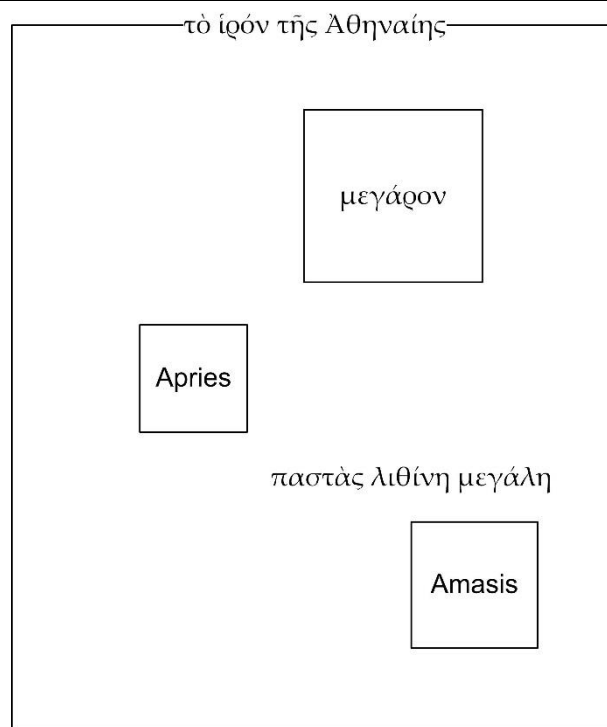


Figure 7.3 – schematic layout of Amasis temple at 2.169.4

ἀριστερῆς χειρὸς modifying ἐσιόντι is a route tour fragment, while the rest is survey style.⁴³⁴

In arriving at his account of the labyrinth Herodotos may have had to integrate information from several kinds of source, and in fact says explicitly that that was the case [2.148.6] and that he will tell of both. Ability to integrate inputs from several modes is a characteristic of human spatial knowledge and gives rise to theories of spatial mental models: partly because, as Tversky observes, it reduces cognitive load to integrate to a single generic schema when processing different kinds of inputs.⁴³⁵

In summary, Herodotos has used a mixed perspective to describe the labyrinth complex; where he was certain of the arrangement of its parts he used a survey style of description and an absolute frame of reference, and where he was not certain of their arrangement, he used a quasi-route description and fictive motion. In this situation Herodotos' description of the labyrinth cannot be used to reconstruct it;

⁴³⁴ A dative of relation (explained in Goodwin as a dative which 'denote[s] a person to whose case a statement is limited – often belonging to the whole sentence, rather than to any special word - William Goodwin, *A Greek Grammar*, New edition, revised and enlarged, 1902, London, s1172) is a construction quite common in Herodotos who shows a clear preference for it in spatial directionals.

⁴³⁵ 'Clearly, the easiest way to integrate these different representations is to use a common schematization for all.', Tversky et al., 'Three Spaces of Spatial Cognition', p517.

indeed, as we saw, Lloyd's resolution determines the shape of the monument only by appeal to other evidence – and this is so, even for the un-labyrinth-like, highly-aligned and rectilinear macro-structure of it.

Chapter 8

Large-scale space in the *Odyssey*: Kirke's Island

8.1 Principles of the Analysis

The indications of Homer's spatial armature in the *Odyssey* are minimal; that they do exist is a fundamental claim of this thesis. As we saw in Part I, the very lack of indications has driven a part, at least, of the *Odyssey*'s modern readers to 'look for' the places they hope, suppose, and expect that the poem is representing. But there is always a slight ambiguity – or defensiveness – in even the most confident: after devoting 5½ pages of his commentary on the *Odyssey* (and a map) to 'Homeric Geography: especially Ithaka and its neighbourhood', W. B. Stanford warns us that 'Homer did not write for geographers'.⁴³⁶ Just so. In this and the following chapters I take advantage of that ambiguity to analyse the 'space' in a different way, in terms of the parameters which characterise spatial references in the text – the space in the text rather than the space outside it.

It is the function of this and the next two chapters to collect the indicators and sketch a framework. The ephrasis of Alkinoos' garden described in Book 7 has already been presented in chapter 6; this chapter touches on haptic space, then in more depth discusses the framework of a large-scale space formed by Kirke's island; and the final *Odyssey* chapter attempts an interpretation of another hypothesised large-scale space as presented in Books 6–7: the meeting place of Odysseus and Nausikaa. In these chapters I identify the following aspects of spatial language:

- a) the low level or atomic syntactic elements which carry spatial information⁴³⁷
- b) frame of reference and perspective
- c) topology of the space
- d) metrics of the space

In the first place I explore the kind of system of spatial reference present in this passage, then I analyse the passage for any basic distinction between topological and metric space, use of a frame; and organisation as route tour, gaze tour or survey

⁴³⁶ W.B. Stanford, *The Odyssey of Homer*, 2 vols, 2nd edn., London, Macmillan, 1959, pxliv. Stanford also, with JV Luce, wrote on the myth itself (*The quest for Ulysses*, London, 1974.)

⁴³⁷ The availability of any syntactic element, say a prepositional phrase, to be a spatial reference is canvassed in Chapter 7; in this chapter I merely identify the element type as required.

description and choice of perspective. I identify the words and phrases which go to make up the system of spatial references; these are the deictic adverbs, prepositional phrases, verbs of movement encoding Path, Direction, Goal and Source or Origin⁴³⁸ as well as toponyms.

Given that the indications of the space are minimal in both the *Iliad* and the *Odyssey* – whether we specify it in terms of the small proportion of words used to describe space in the poems or in terms of absence or vagueness in specifying details of terrain, landscape or position – we can think of the indications which are there as an armature of minimalist design, but perhaps effective and adequate to its purpose. In that case it will be important to pay attention to minute indicators such as the precise differentiation of semantic roles, shown for example in the difference between *διὰ δρυμὰ* and *ἀνὰ δρυμὰ*, both of which may be translated into English as ‘through bush’, but which probably had a different feeling and envisioning for the poet and his original audience.⁴³⁹ Notwithstanding the ambiguity of an English translation, those differences can be made manifest by the methods of cognitive linguistics and in particular the identification of semantic roles.⁴⁴⁰

The whole of Book 10 of the *Odyssey* is part of the Apologue, which has Odysseus himself as narrator, in his role as guest story-teller at the palace of Alkinoos, king of the Phaiakians.

8.2 On Kirke’s island

Odysseus has just told of the distressing encounter with the Laestrygonians and moves straight on to their next encounter (133 ἔνθεν δὲ προτέρῳ πλέομεν) which is an island, named immediately as Aiaia and as the dwelling place of Kirke.

Αἰαίην δ’ ἐς νῆσον ἀφικόμεθ’ ἔνθα δ’ ἔναιε

Κίρκη

Od. 10.135-6

We reached the island of Aiaia; there it was that

⁴³⁸ These terms and some further examples, when they appear with an initial capital letter, denote semantic roles. See the discussion of semantic roles in Chapter 6.

⁴³⁹ It is possible that these phrases – three occurrence of *διὰ δρυμὰ* (2 in *Od.* 1 in *Iliad*) and one (in the *Odyssey*) of *ἀνὰ δρυμὰ* – are in free variation as they occur in very similar descriptive situations. However Silvia Luraghi draws attention to the meaning ‘exhaustive motion’ when *ἀνὰ* occurs with the accusative (Luraghi, *Prepositions and Cases*, p192).

⁴⁴⁰ Briefly discussed in Chapter 6 with reference to Luraghi, *Prepositions and Cases*.

The next 20 verses describe the landing and Odysseus' lone exploration of the island. The landing, disembarkation and exhaustion are repeated motifs; the god-assisted landing an optional part (also present in elaborated form in the landing on 'Goat Island' at *Od.* 9.142-148).⁴⁴¹ These first lines about the island are instructive for their illustration of the groundedness prominent in the poem. It is therefore worth dwelling on them as an example of the poet's habitual attention to where objects and people are.

ἔνθα δ' ἐπ' ἀκτῆς νηὶ κατηγαγόμεσθα σιωπῇ
ναύλοχον ἐς λιμένα, καὶ τις θεὸς ἡγεμόνευεν.
ἔνθα τότ' ἐκβάντες δύο τ' ἡμέματα καὶ δύο νύκτας
κείμεθ' ὁμοῦ καμάτῳ τε καὶ ἄλγεσι θυμὸν ἔδοντες. *Od.* 10.140–3

And there we came onto the beach with the ship silently
into a safe harbour, and some god was guiding us.
There then disembarking for two days and two nights
we lay wholly exhausted and consuming our heart in grief.

In line 140, with its enjambment to line 141, every word counts. If they were guided by a god then they were not rowing – so no thwack of rowlocks and no sound of flapping sail in uncertain wind – hence σιωπῇ. In the same line ἐπ' ἀκτῆς and νηὶ, which are, grammatically speaking, separate adjuncts to the verb κατηγαγόμεσθα, stack together to make dispositional meaning: the men were on the ship landing on the beach⁴⁴² (ἐπ' ἀκτῆς = on the (Surface of) the shore).⁴⁴³ We are thoroughly grounded and we stay grounded with ἔνθα (142) again as the companions disembark. Lines 142-3 state and elaborate their exhaustion. ἔνθα references Aiaia. Odysseus and the men stay there for two days and two nights from exhaustion, which is not expressed with a verb of 'being exhausted' but with a substantive which leaves the

⁴⁴¹ Discussed in chapter 2.

⁴⁴² Whether is translated as on the ship or 'with the ship' the point is still good: the ship is the object which touches the beach, hence e the men in the ship were also beached.

⁴⁴³ Locative expressions ἐπί with dative and ἐπί with genitive seem to be in free variation. Luraghi notes that ἐπί with dative and ἐπί with genitive are hardly to be distinguished. Both denote contact of trajector with surface of landmark and both occur with horizontal surfaces. Her examples are *Iliad* 3.89 ἐπὶ χθονὶ and *Iliad* 20.345 ἐπὶ χθονός – both said of a spear lighting on the ground (See Luraghi, *Prepositions and Cases*, pp298-303).

verb to express explicitly to express ‘lying’ in a state of exhaustion – thus emphasising localisation.

There follows a thickish description (by Homeric standards) of Odysseus’ exploration of the island. We follow it here from the time Odysseus leaves the beach to the time he returns to the men and ship, having had an adventure of his own (lines 144–173).

ἀλλ’ ὅτε δὴ τρίτον ἦμαρ εὐπλόκαμος τέλεσ’ Ἠώς,
 καὶ τότε ἔγων ἐμὸν ἔγχος ἐλὼν καὶ φάσανον ὄξυ 145
 καρπαλίμως παρὰ νηὸς ἀνήιον ἐς περιωπὴν,
 εἶ πως ἔργα ἴδοιμι βροτῶν ἐνοπὴν τε πυθοίμην.
 ἔστην δὲ σκοπιὴν ἐς παιπαλόεσσαν ἀνελθὼν,
 καὶ μοι εἰείσατο καπνὸς ἀπὸ χθονὸς εὐρυοδείης,
 Κίρκης ἐν μεγάροισι, διὰ δρυμὰ πυκνὰ καὶ ὕλην. 150
 μερμηρίξα δ’ ἔπειτα κατὰ φρένα καὶ κατὰ θυμὸν
 ἐλθεῖν ἠδὲ πυθέσθαι, ἐπεὶ ἴδον αἴθοπα καπνόν.
 ὧδε δέ μοι φρονέοντι δοάσσατο κέρδιον εἶναι,
 πρῶτ’ ἐλθόντ’ ἐπὶ νῆα θοὴν καὶ θῖνα θαλάσσης
 δεῖπνον ἐταίροισιν δόμεναι προέμεν τε πυθέσθαι. 155
 ἀλλ’ ὅτε δὴ σχεδὸν ἦα κιὼν νεὸς ἀμφιελίσσης,
 καὶ τότε τίς με θεῶν ὀλοφύρατο μοῦνον ἐόντα,
 ὅς ῥά μοι ὑψίκερων ἔλαφον μέγαν εἰς ὁδὸν αὐτὴν
 ἦκεν. ὁ μὲν ποταμόνδε κατήιεν ἐκ νομοῦ ὕλης
 πίομενος· δὴ γάρ μιν ἔχεν μένος ἠελίοιο. 160
 τὸν δ’ ἐγὼ ἐκβαίνοντα κατὰ κνηστίν⁴⁴⁴ μέσα νῶτα
 πληῖξα· τὸ δ’ ἀντικρὺ δόρυ χάλκεον ἐξεπέρησε,
 κὰδ δ’ ἔπεσ’ ἐν κονίησι μακῶν, ἀπὸ δ’ ἔπτατο θυμός.
 τῷ δ’ ἐγὼ ἐμβαίνων δόρυ χάλκεον ἐξ ὠτειλῆς
 εἰρυσάμην· τὸ μὲν αὖθι κατακλίνας ἐπὶ γαίῃ 165
 εἶασ’· αὐτὰρ ἐγὼ σπασάμην ῥῶπᾶς τε λύγους τε,
 πεῖσμα δ’, ὅσον τ’ ὄργυιαν, εὐστρεφὲς ἀμφοτέρωθεν
 πλεξάμενος συνέδησα πόδας δεινοῖο πελώρου,
 βῆν δὲ καταλοφάδεια φέρων ἐπὶ νῆα μέλαιναν

⁴⁴⁴ Reading κατὰ κνηστίν for κατ’ ἄκνηστιν: see Heubeck in Commentary Vol 2, ad. loc. and Bechtel, *Lexilogus*.

ἔγχει ἐρειδόμενος, ἐπεὶ οὐ πῶς ἦεν ἐπ' ὄμου 170
 χειρὶ φέρειν ἐτέρη· μάλα γὰρ μέγα θηρίον ἦεν.
 κὰδ' δ' ἔβαλον προπάρριθε νεός, ἀνέγειρα δ' ἑταίρους
 μιλίχιους ἐπέεσσι παρασταδὸν ἄνδρα ἕκαστον·

But when lovely-haired Dawn accomplished the third day
 I at that point took my spear and sharp sword and
 swiftly went up from beside the ship to a lookout place
 to see if I might catch a glimpse of human activity and hear a voice.
 So I stood having gone up to a lookout on a rock,
 and smoke appeared to me from the wide-wayed earth,
 in the halls of Kirke, through dense coppice and wood. 150

I considered then in my heart and in my mind
 whether to go and find out, since I saw the bright smoke.
 And on thinking about it it seemed to me best thus:
 that I should go first to the swift ship and the shore of the sea
 to give dinner to my men and to send them off to find out.
 But when I was approaching the balanced ship and near to it
 at that moment some god took pity on me since I was alone,
 so he sent a big high-horned stag for me into the very path.
 It was coming down to the river from the wooded pasture
 to drink; for the strength of the sun held it. 160

And I shot it as it came out, on the spine in the middle of the back;
 and the bronze shaft passed straight through
 And it fell down in the dust with a moan, and the life flew from it.
 And getting on it I drew the bronze shaft out of the wound;
 putting it down again on the ground
 I left it; and I plucked withies and twigs,
 And weaving a rope, as long as a fathom, well-woven both ways,
 I bound together the feet of the monstrous creature,
 and carrying it on my neck I went toward the black ship
 leaning on the spear, since it was not possible to carry it 170

on my shoulder with the other hand; for the beast was very big.
 And I threw it down in front of the ship and I gathered my companions
 with honey-sweet words standing beside each man.

This is a beautiful passage, striking most readers no doubt from the pathos of the death of the stag – not the less so because *κὰδ δ' ἔπεσ' ἐν κονίησι μακῶν, ἀπὸ δ' ἔπτατο θυμός* (it fell down in the dust with a moan, and the life flew from it) is reminiscent of the death of many heroes in the *Iliad*. (And it is presumably from that cause that we ascribe the pathos to the poet narrator although the words themselves are uttered by Odysseus who is telling the tale to a spellbound audience of Phaiakians.) Stanford, noting that the huge size of the stag is emphasised by repetition, suggests, in a rather off-putting phrase, that ‘O. seems to have been unusually proud of this kill.’⁴⁴⁵ From another point of view the scene is unusual in the poem in presenting Odysseus as alone and acting by himself.⁴⁴⁶ This of course is merely to observe that Homer composes stories about people not landscape. Nonetheless there are several elements in the passage worth noting for their dispositional meaning and the focus they bring to haptic space.

8.3 Haptic Space

In total, four objects are mentioned as present; three take active part, a fourth, Odysseus’ sharp sword mentioned at line 145 when he takes it up is not further referred to in this episode.⁴⁴⁷ These are: Odysseus, who of course moves under his own volition; a stag, which also moves under its own volition; and a spear carried by Odysseus. The spear, as expected, is made of bronze and, as expected, Odysseus uses it to kill the stag. He then puts it down on the ground and leaves it (*αὖθι κατακλίνας ἐπὶ γαίῃ | εἶας*, 165-6): two verbs, a prepositional phrase and an intensifying adverb to bring focus to the position of the spear. In the case of something of the simple dimensions of a spear, one is tempted to think that it can be held (not for business use) in two fingers leaving the other fingers plus the other hand to do any other complex manipulation which may be called for – such as tying up one’s shoelaces, or weaving a rope – but in practice it always turns out not to be so I think this is because all fingers of one hand to not work completely independently. The poet knows this, being very conscious of object manipulation (haptic space), as is confirmed if we look at the other dispositions. Odysseus is seriously bent forward under the creature’s

⁴⁴⁵ Stanford, *Odyssey*, ad loc.

⁴⁴⁶ I had almost said this episode was unique except for the time alone in the boat then in the water trying to make shore at the end of Book 5 – see discussion of that passage in Chapter 9; but the time alone on the island of the sun is similar.

⁴⁴⁷ Although de Jong, *Narratological Commentary*, p259, notes that the second putting on of the sword at line 261 is narratologically motivated – he will need it in the confrontation with Kirke.

weight carrying it on both shoulders (καταλοφάδεια φέρων 169). He could therefore only lean on the spear rather than carry it in his other hand (ἔγχει ἐρειδόμενος ... χειρὶ φέρειν ἑτέρη 170–1).

This vignette is particularly interesting because it describes an action not seen elsewhere in the *Iliad* or the *Odyssey*, and as a consequence employs some *hapax legomena*. The poet's interest in the disposition of objects is present throughout the *Odyssey* and the fact that dispositions of similar objects are expressed with similar words does not disguise the fact that they are expressed accurately: that is, the 'formulaic' nature of the diction does not express formulaic thought as we can see from the many minor variations in dispositions of these 'formulae'. The consciousness of the space of the body evident here is more frequently expressed in speaking of the use of standard articles and common situations such as meeting of guest and host. It makes all such situations grounded. A cluster of expressions later in Book 10 when Odysseus is in Kirke's house will illustrate the point:

ἀμφὶ δέ με χλαῖναν καλὴν βάλεν ἠδὲ χιτῶνα,
 εἶσε δέ μ' εἰσαγαγοῦσα ἐπὶ θρόνου ἀργυροῆλου
 καλοῦ δαιδαλέου, ὑπὸ δὲ θρηῆνυς ποσὶν ἦεν·
 χέρνιβα δ' ἀμφίπολος προχόω ἐπέχευε φέρουσα
 καλῆ χρυσεῖη, ὑπὲρ ἀργυρέοιο λέβητος,
 νίμασθαι· παρὰ δὲ ξεστὴν ἐτάνυσσε τράπεζαν. *Od.* 10.365–70

All but one of these six lines is anchored by a particle / preposition serving to locate an object in relation to Odysseus (ἀμφὶ δέ με χλαῖναν 365, μ' / ἐπὶ θρόνου 366, παρὰ [sc. Odysseus] δὲ τράπεζαν) or one object with respect to another (θρόνου / ὑπὸ δὲ θρηῆνυς 366-7, χέρνιβα / ὑπὲρ ἀργυρέοιο λέβητος 368-9). All these expressions occur multiply elsewhere in the *Odyssey* as part of the hospitality motif.

8.4 The large-scale space

In the previous section I called attention to the poet's faultless realisation of the disposition of manipulable objects in haptic space and it is now time to consider the large-scale space aspects of the adventure on Kirke's island. The passage we will consider opens with the statement that Odysseus and men reached an island (Αἰαίην δ' ἐς νῆσον ἀφικόμεθ', 10.13). We discover that the island is not so small as to form a

single gaze space and that it meets our definition of large-scale space in having not all parts intervisible. Certain places are clearly specified mentioned several times, usually because they act as source and goal of movement of Odysseus or the companions. These are the landmarks of the potential topological or metric space.

8.4.1 Landmark 1: the ship

As in the *Iliad*, the ship represents a place, because once in harbour it is in the nature of the story immovable and a place of safety (Odysseus does not potter around looking for the best beaches like an island-hopping tourist). From the ship Odysseus determines to get his bearings so walks up to somewhere which is presumed to have a good view (παρὰ νηὸς ἀνήτιον ἐς περιωπήν 10.146), which can only be a place which is not only high but clear of trees even though the sides of the hill may be woody, hence the actual place with view is bare rock (σκοπιὴν ἐς παιπαλόεσσαν 148).

Delos has one eminence of 116 masl which can be seen from everywhere on the island and from which there is a view to the sea all round.⁴⁴⁸ If we assume the island of Aiaia is imagined as similar in size, we can see how verses about the lookout illustrate the two-way requirement of wayfinding: landmark as both goal and eminence, so a position from which one can find the next landmark.

8.4.2 Landmark 2: the lookout

Having got to the lookout, the second landmark, Odysseus describes the view – explicitly as a view (μοι ἐείσατο 149) – in two verses:

καί μοι ἐείσατο καπνὸς ἀπὸ χθονὸς εὐρυοδείης,
Κίρκης ἐν μεγάροισι, διὰ δρυμὰ πυκνὰ καὶ ὕλην. *Od.* 10.149–50

then his thought about it:

μερμήριζα δ' ἔπειτα κατὰ φρένα καὶ κατὰ θυμὸν
ἐλθεῖν ἠδὲ πυθέσθαι, ἐπεὶ ἴδον αἶθοπα καπνόν. *Od.* 10 149–50

I pondered then in my heart and my mind
about going and finding out, since I saw glowing smoke

⁴⁴⁸ I am not perfectly sure that from Mt Kynthos one can see the sea to the south.

then the change of mind, with a new goal specified

ὧδε δέ μοι φρονέοντι δοάσσατο κέρδιον εἶναι,
 πρῶτ' ἐλθόντ' ἐπὶ νῆα θοὴν καὶ θῖνα θαλάσσης *Od.* 10.153-4

and this seemed to me as I thought about it to be better
 to first of all go to the swift ship and the shore of the sea

δοάσσατο κέρδιον εἶναι always indicates a final decision after consideration of alternatives, so that we next expect to hear of Odysseus back at landmark one, the ship, in accordance with his decision here; and this turns out to be so. (This will be the last reference to the lookout but meanwhile landmark 3, Kirke's house, has been identified.) The episode of the stag takes place on the route between landmark 2 and landmark 1 (ship) – necessarily the second tracing of that route. The encounter interrupts Odysseus' progress to the ship, at a point given in topological relation only to the landmark (he is 'near' it):

ἀλλ' ὅτε δὴ σχεδὸν ἦα κιὼν νεὸς ἀμφιελίσσης *Od.* 10.156

The actual arrival at the goal, landmark 1, is restated with the action of throwing down the stag in front of it προπάροιθε νεός at 172. What do we do with the stag? The episode takes up verses 158–172 during which the stag is placed, and it moves, so we should ask whether it adds to our knowledge of the space Odysseus is moving in. The path of the stag is given in terms of three features of the landscape which have not been mentioned before: river (ποταμός) ,pasture (νομός) ,wood (ῥλη).

... ὁ μὲν ποταμόνδε κατήιεν ἐκ νομοῦ ῥλης *Od.* 10.159
 it came down to the river from the pasture in the wood

These give Source of motion (out of pasture, elaborated with 'in a wood') and Goal (toward a river). In the nature of things these are large features which must be integrated into the schema representing Odysseus' space. The path is specified independently of Odysseus' position and orientation: nothing is said of whether the stag appeared directly in front of him, or to his left or right. It 'comes down' (κατήιεν,

159) ‘on his path’ (εἰς ὁδὸν αὐτῆν, 158). We know that Odysseus is also coming ‘down’ as he has been on a lookout and is proceeding toward the ship at harbour. Neither the stag nor its path is a landmark because neither is a goal of motion for him. None of pasture, wood or river are mentioned again. Using the terminology on the diagram of figure 8.2, they rank as isolated ‘places’ – unconnected with any other information. As such they are topological information but without at least one connection to other information cannot contribute to the schema. Tentatively I would analyse them in a similar way to a spatial digression (see Chapter 9, sections 2 and 4 for further discussion of this idea). They are a virtual spatial digression (let us say) – a set of nodes which cannot be integrated to existing knowledge straightaway and which are not mentioned again so will never be integrated.

8.4.3 Landmark 3: Kirke’s house

Kirke’s house is clearly a landmark. It is mentioned as seen (implicitly) when Odysseus is standing on landmark 2; and it is the destination of the route of a character four times (210 252 276 308) and referred to in other ways a handful more time. For 34 verses, from 10.210 to 10.243, the focus is at Kirke’s house: first narrated by Odysseus, then quoting the words of the companion Eurylokhos, then Odysseus’ own narrator’s voice again. The scene is a distressing one which describes 22 of Odysseus’ companions transmogrified into pigs, though still human in consciousness, and treated as such by Kirke, who confines them to a pigsty and feeds them pig food:⁴⁴⁹

... οἷα σύες χαμαιεννάδες αἰὲν ἔδουσιν. *Od.* 10.243

just as if they were ground-hugging swine permanently eating

The house as a destination to be looked for appears from several expressions. The first sight of it, as I argue above on the expression Κίρκης ἐν μεγάροισι (150), is not a sight but a suggestion. The first to go there, Eurylokhos, ‘found’ the house (εὔρον / εὔρομεν 210/252 in Odysseus’ narrator text / Eurylokhos’ words), and Odysseus

⁴⁴⁹ The type of food one eats, or is offered, is important in Homer as a signifier of status. (Definitional example that the gods consume nectar and ambrosia, humans don’t). These 34 lines are a particularly salient exemplar because the change of food associated with the transformation is explicit: while they are still men Kirke invites them into her house, offers them sensible countrified food (cheese in evidence as it is in the Kyklops fare), but mixed with the best wine; when they are pigs in body she throws them acorns, the fruit of the ilex and cornel nuts.

request on hearing Eurylokhos' awful story that he lead him (Odysseus) back there by the same path (10.263). It is often in space, so to speak, that Homer's 'swiftness' is evident:⁴⁵⁰ at the very next verse Eurylokhos goes back to the ship – a stiff, prickly walk at least:

Εὐρύλοχος δ' ἄψ ἦλθε θοὴν ἐπὶ νῆα μέλαιναν, *Od.* 10.244
ἀγγελίην ἐτάρων ἐρέων . . .

Eurylokos went back to the swift black ship
to tell the news of his companions . .

This verse again is contained not at all with the journey, only the arrival, though in actuality if it was necessary to go through scrub to get to Kirke's house (ἀνὰ δρυμὰ 251) then it was necessary to go through the same scrub to get away from it. The return to Odysseus and the others to report the awful thing which has happened is the important thing as Homer states plainly in the next verse. The mention of the ship (θοὴν ἐπὶ νῆα μέλαιναν) again as Eurylokos' destination acts to confirm an already-known fixed point, a landmark already in our mental model (ἄψ). Since we, the audience, spend more mental time, so to speak, at Kirke's house than at the other landmarks, it is worthwhile to ask what its situation description consists of. The house itself is pleasantly solid and in two verses we get not only the building material and workmanship but the situation as well.

There is some difficulty about the meaning of *περισκέπτω* which occurs in the situation description in Odysseus' speech to his companions and repeated in Eurylokhos' report to Odysseus when he comes back without his band:

εὐρομεν ἐν βήσσησι τετυγμένα δώματα καλὰ
ξεστοῖσιν λάεσσι, περισκέπτω ἐνὶ χώρῳ. *Od.* 10.252–3

We found her house in the glades beautifully built

⁴⁵⁰ See Matthew Arnold, *On Translating Homer*, London, Smith, Elder, 1896. Arnold explains the four main qualities of Homer: that he is 'eminently rapid . . . he eminently plain and direct. . . in the evolution of his thought . . . in the substance of his thought . . . and . . . that he is eminently noble. (p9 and passim). See for example, Arnold's explanation of why Cowper's translation fails in swiftness at pp 9-13 and why rhyming couplets nearly always fail to render Homer properly – because they couple lines by sound which should not be coupled in sense (p14).

of polished stone, in a clear place

But we would like to know exactly what περισκεπτῶ ἐνὶ χώρῳ signified. Against the sense ‘exposed to view from every side, open, clear’ given in LSJ, Cunliffe, Stanford etc., Heubeck gives the gloss ‘elevated’ for περισκεπτῶ (= *Od.* 14.6) after Will Richter.⁴⁵¹ Richter gives only the agricultural Latin writers on the wisdom of siting one’s farm on elevated ground as justification for his meaning. Stephanie West on 1.426⁴⁵² where it is used of Telemachos’ room, suggests either ‘conspicuous’ or ‘commanding a view all round’ both from σκέπτομαι or ‘protected on all sides’ a common root with σκέπας⁴⁵³ – the latter being preferable because of its use as descriptor of Kirke’s house. The first two meanings from σκέπτομαι are in fact consonant, whether one has a theory of eyes as receptors of light reflected off objects, or whether one thinks in terms of a principle of ‘sight’ as thrown upon the thing looked at. The senses from σκέπτομαι relate to the action of the men and subsequently Odysseus in finding the house, the sense from σκέπας would refer to a permanent property of the house. Since both etymologies exist as rational possibilities they cannot offer a definitive interpretation. So, at the risk of falling into an etymological fallacy I prefer the simple ‘visible all round’ which seems justified by the need to have space for the men-pigs.⁴⁵⁴

There is another crux a few lines before which we should consider at the same time as they both relate to possible overlaying of spaces for poet and audience. Generally speaking Odysseus uses at any given point only the information available to the persons involved as observers in that situation. Hence when he is speaking of his own observations earlier at 149-150 he says (with the exception of one phrase) what he observed then, which is not the house but the evidence of the house, that is, smoke rising:

καί μοι ἐείσατο καπνὸς ἀπὸ χθονὸς εὐρυοδείης,

⁴⁵¹ Heubeck (*Commentary*, Vol 2, p55); Will Richter, *Die Landwirtschaft Im Homerischen Zeitalter*, Gottingen, Vandenhoeck & Ruprecht, 1968, p29.

⁴⁵² *Commentary* Vol 1, deferring to Frisk and Doderlin.

⁴⁵³ Or understood as such by the poet (Heubeck, *Commentary* vol 2, ad loc.)

⁴⁵⁴ I am grateful to Dr Rachel Hendery for help with German translation here.

Κίρκης ἐν μεγάροισι, διὰ δρυμὰ πυκνὰ καὶ ὕλην. *Od.* 10.149–50

and there appeared to me smoke from the wide-wayed earth
in Kirke's halls, through thick bush and wood.

By the process of focalisation a narrator can choose to take one of several perspectives, including an objective 'view from nowhere' perspective, or that of the character whose direct speech is in progress, or some other narratological perspective or combination. Irene de Jong sets this out in detail in her commentary on the *Odyssey* (a commentary which is, as she succinctly puts it, 'syntagmatic').⁴⁵⁵ In the case in point, where Odysseus' narrator-text at 10.150 includes the information that the smoke was in Kirke's halls when he is on his first reconnaissance and has yet to encounter Kirke, we can impute this to prolepsis by a transference from Homer's knowledge (Homer at the time of recitation knows Odysseus' history) to Odysseus.⁴⁵⁶ Is this a lapse or a motivated transference? De Jong explains the default approach to focalisation within the Apologue (where Odysseus is the narrator), and the exceptions to the default:

In general Odysseus narrates according to his narrating focalization, i.e., his focalization at the moment of narration, when he has the benefit of hindsight. ... Occasionally however he suppresses his hindsight knowledge and narrates according to his experiencing focalization, i.e., his focalization in the past, when he was undergoing the events.⁴⁵⁷

So in de Jong's view the default mode within the Apologue, which includes the adventure on Kirke's island, will be with benefit of hindsight.⁴⁵⁸ The existence of spatial knowledge as a manipulable model by means of which one may choose a certain perspective and describe a route or a view in accordance with it confirms these narratological observations.

⁴⁵⁵ Irene J. F. de Jong, *A Narratological Commentary on the Odyssey*, CUP, 2001, pviii.

⁴⁵⁶ See the definitions of *prolepsis* and *transference* at pp xvi & xviii in de Jong, *A Narratological Commentary*.

⁴⁵⁷ de Jong, *A Narratological Commentary*, p226.

⁴⁵⁸ She notes that knowledge of Kirke is shown with benefit of hindsight (before any of the party have met her) at verses 150, 210, 221, 276. (de Jong, *A Narratological Commentary*, ad loc.)

So far, so good: the information in these two verses conforms to de Jong's observation in being that which is available at the time of the observation (μοι εἴσατο καπνός), with the exception of Κίρκης ἐν μεγάροισι. It seems to me that the additional hindsight information in Κίρκης ἐν μεγάροισι, though apparently an exception to the default, shows still its general validity. The poet has wanted to describe at this stage only the smoke and its rise from the ground (approximately speaking and for all he knew - ἀπὸ χθονὸς εὐρυοδείης) which is the objective view; and to note 'the view' in a subjective sense – the elements Odysseus saw in the arrangement he saw them – the smoke was seen through bush - διὰ δρυμὰ πυκνὰ καὶ ὕλην. But the phrase Κίρκης ἐν μεγάροισι does not fit syntactically: what is 'in' Kirke's halls? Odysseus knows at the time of speaking that Kirke herself is. The explanation may be that διὰ δρυμὰ πυκνὰ καὶ ὕλην fits the end of the line but not the beginning, so that present knowledge slips into the beginning of the line in this abbreviated form as functioning as an elaboration of (the semantic role of) Origin, taken by ἀπὸ χθονὸς εὐρυοδείης. It is a phrase which 'asks for' more specific information since as audience we know smoke is caused by human agency and does not literally rise from the ground by itself.⁴⁵⁹ διὰ plus accusative / plus genitive denotes Path, with accusative distinguished by profiling a 'trajectory that changes direction randomly, and remains inside the landmark.'⁴⁶⁰ Luraghi also notes – in the same expression by Odysseus in his speech to the men slightly later (her example 17):

καπνὸν δ' ἐνὶ μέσση
ἔδρακον ὀφθαλμοῖσι διὰ δρυμὰ πυκνὰ καὶ ὕλην.' *Od.* 10.196–7

that 'the accusative is chosen because the continuous trajectory (καπνόν, 'smoke') rises as a mass, rather than as a straight line inside a continuous landmark, i.e. an area which is itself constituted by ill-detached parts.'⁴⁶¹

As we saw in Chapter 6, a spatial mental model is not just a series of 'views' or mental images. If it were it would not explain the poet's ability to give different views as appears to be happening here. Rather, the mental model is a set of information in

⁴⁵⁹ Most translators find this gap, which I claim exists in the Greek, easily coverable in English by the same parataxis: smoke appeared - from the ground ... in Kirke's halls', e.g. Richmond Lattimore, *Homer: The Odyssey*.

⁴⁶⁰ Luraghi, *Prepositions and Cases*, p172.

⁴⁶¹ Luraghi, *Prepositions and Cases*, p172.

different forms which can be interrogated subsequently and provided the right cues are present. As Benjamin Kuipers' view-action-view model shows,⁴⁶² one can 'know' some facts about a given environment without knowing one knows them or being able to retrieve them unless the right stimulus is received. Hence Odysseus as narrator could if Homer chose, omit the prolepsis of Κίρκης ἐν μεγάροισι and create a description based only on information available to him. If we are looking for a poetic motivation for adding the phrase, de Jong notes that a frequent use of prolepsis by Odysseus as narrator is character-sketch preambles which 'bias his narratees against his opponents',⁴⁶³ however that does not seem to be the motive here as the phrase is quite neutral. In my view another possibility is that the trajector is not the smoke but the abstract notion of sight implied as trajector by ἔδρακον ὀφθαλμοῖσι. The point would be settled if we could say that διὰ profiled horizontal motion of the trajector; this does not seem to be the case however.⁴⁶⁴ Its effect in the spatial schema when mentioned at this early point – the first mention of the smoke / house as a landmark – is to confirm that this will be a point to be integrated into the topological schema.

8.5 Identifying a spatial framework

The journey of Odysseus as he sets off from the ship to go to Kirke's house having heard Eurylochos' report of the fate of the men contains all the relevant indications of terrain. (*Il* 10.274-311). The passage also contains the meeting with Hermes which is instructive for its use of spatial expressions. The expression at 274 is, as expected, 'going up', consistent with previous indications of the nature of the island by which going inland means going up. Here another feature of the terrain is given in ἱεράς ἀνά βήσσης (10.275), repeating the previous two uses (210, 252) in the parallel passages, but with the addition of descriptive ἱεράς. In this case it describes not the site of Kirke's house as in those passages (ἐν βήσσησι, semantic role: Location) but the path by which Odysseus gets to her house. Turning again to Luraghi's analysis of the semantic roles: 'ἀνά always implies the existence of a trajectory' and 'in spatial expressions, ἀνά with the accusative and multiplex landmarks indicates that a

⁴⁶² Benjamin Kuipers, 'Modelling human knowledge of routes: partial knowledge and individual variation' in Paul Bloom et al (eds.), *Language and Space*, MIT Press, 1996, pp216-219 (discussed above in Chapter 8).

⁴⁶³ de Jong, *A Narratological Commentary*, p226.

⁴⁶⁴ Contrast the occurrence of ἀνά δρυμά at 251, in Eurylochos' account of the journey to Kirke's house through coppice, with διὰ δρυμά at *Iliad* 11.118 in a simile, used of a deer. At *Od.* 10.251, Eurylochos is referring to the fact that he sought around throughout the bush for Kirke's house ('In spatial expressions, ἀνά with the accusative and multiplex landmarks indicates that a trajector performs an exhaustive motion', Luraghi, *Prepositions and Cases*, p192.)

trajector performs an exhaustive motion, by which it touches all points of the landmark'.⁴⁶⁵ Applied to Odysseus's movement or intended movement (ἔμελλον ἰών, 275) this is movement 'throughout' the sacred dells.⁴⁶⁶ The journey as a whole is specified by origin (παρὰ νηὸς ... ἠδὲ θαλάσσης 274), goal (ἐς μέγα δῶμα, 276) and path (ἱερὰς ἀνὰ βήσας, 275), with Direction restated as πρὸς δῶμα (278).⁴⁶⁷ In summary, Odysseus when met still some way from Kirke's house, says ἐρχομένῳ πρὸς δῶμα = going in the direction of the house, and when Hermes is giving him instructions he says ἐς δῶματα | ἔρχεσθαι = go so as to get to the house. The Direction semantic role profiled by πρὸς appears again when they separate and go on different journeys:

Ἑρμείας μὲν ἔπειτ' ἀπέβη πρὸς μακρὸν Ὀλυμπον
 νῆσον ἀν' ὑλήεσσαν, ἐγὼ δ' ἐς δῶματα Κίρκης
 ἦια

Od. 10.307–9

What this extremely limited example demonstrates is that choice of preposition is semantically motivated; and that close attention to distinctions of semantic role of prepositions is a productive alternative to other interpretive methods which are invoked when any difficulty arises. These include an appeal to an assumed physical setting and a noun-based etymological method. The former attempts to resolve uncertain words, especially substantives, by appeal to supposed realia such as archaeology; the latter also focusses on substantives with appeal to comparative linguistic data. In my analysis use of the external realia method is inappropriate as it would involve an *ex hypothesi* contradiction.

Hermes goes in the direction of Olympos but we do not go with him, whereas Odysseus gets to Kirke's house without further mention of means or path. The fact that Hermes 'goes away' (ἀπέβη, 307) towards Olympos indicates not he but Odysseus is the focaliser. Contrast this with Hermes' visit to Kalypso's island Ogygia

⁴⁶⁵ Luraghi, *On the Meaning of Prepositions and Cases*, p188/190.

⁴⁶⁶ Assuming flexibility in the formula (that is, the poet has in fact said what he meant to say.)

⁴⁶⁷ πρὸς is selected by δῶμα when the semantic role Direction is meant: 'occurrence of animate landmarks with motion verbs is apparently what distinguishes πρὸς with the accusative from παρά with the accusative.' (Luraghi, *Prepositions and Cases*, p189). When Hermes is speaking a few verses later the expression is ἐς δῶματα Κίρκης | ἔρχεσθαι (287-8) profiling the endpoint of motion because Hermes is giving Odysseus an instruction which as a god he fully expects to be obeyed; he therefore has in mind the endpoint only and is not concerned with the means of getting there.

at *Od.* 5.43ff where, as Benjamin Haller points out, Hermes is the focaliser in an extended descriptive passage which gives us our first view of the island where Odysseus has been for seven years:

‘Tracing Hermes’ flight to Calypso’s home, the poet presents Ogygia’s landscape through the god’s admiring eyes to allow his readers to appreciate the scenery while leaving Odysseus free to grieve unstintingly on the shore.’⁴⁶⁸

Hermes’ journey does not constitute a spatial digression because we have no arrival at an endpoint.

When Odysseus gets to Kirke’s house there follows the domestic scene with resistance to her wand, bath etc. and negotiation for re-transformation of men, followed by a round trip to the ship and back at Kirke’s bidding. They spend a full year with her (467) without Odysseus’ offering us any further description of the island. They go down to the sea again in a subordinate clause at the beginning of Book 11, Homer not forgetting that as the ship had been drawn up (command to draw it up at 423, men obedient to his words, 428) it now has to be dragged down again to the water (11.2).

In summary, Kirke’s house is through bush in the glen (ἀνὰ δρυμά, ἐν βήσσησι), it cannot be seen from the high point Odysseus took his survey from; Odysseus’ lookout is the only eminence – or the only significant one. From it the sea could be seen in every direction. So much for the natural features, indicated by words drawn probably from a large vocabulary to describe natural landscape and chosen for their general suitability to the purpose the poet had in mind for the episode. Whereas Eurylokhos goes through bush to get to Kirke’s house, Odysseus goes through glens.

The only points are the lookout, the ship at the shore and Kirke’s house. The only directions are up from the shore, down from the lookout.

⁴⁶⁸ Benjamin Haller, *Landscape Description in Homer’s Odyssey*. Unpublished PhD dissertation. University of Pittsburgh. 2007 [accessed from <http://etd.library.pitt.edu/ETD/available/etd-08072007-131521> on 9/8/2010], p13.

It is interesting to note that English translations often supply a point of view for Eurylochos' movement from Kirke's house at 244 which in fact is not present:

Εὐρύλοχος δ' αἶψ' ἦλθε θοὴν ἐπὶ νῆα μέλαιναν *Od.* 10.244

Down to the ship Eurylokhos came running

Fitzgerald

Back Eurylochos ran to our swift black ship

Fagles

Meanwhile Eurylochos came back to the good black ship

Rieu

These augmentations reflect the strong bias in narrative to one based on point of view or perspective⁴⁶⁹ and confirm my observations of my own biases in remembering the configuration of Kirke's island.

On his journey back on the instructions of Kirke (407) he sets off to go and achieves the goal of the ship and shore without any intervening Path needing to be stated (407) – that is, ἐπί realises a Goal expressed as a surface.⁴⁷⁰

There is no metric information about the island. Neither is there any qualitative or affective description, except perhaps the 'low-lying' descriptor (χθαμαλή, 196) of the island as a whole, and the dells which are 'sacred'. There is no reference to landscape features positioned to left or right of other landscape features or the speaker. There are no statements about nearness or farness relative to landscape features or the speaker. So we have a topological description composed of three points only, the ship as a place of arrival, location or departure, the lookout as a place of arrival and Kirke's house as a place of arrival, location or departure. This sounds strange and minimal but of course it is consonant with an island small enough to be explored in a day and in which one cannot get completely lost because when not on the eminence

⁴⁶⁹ However the reason may be that these translators were using different texts: αἶψ' / ἄψ.

⁴⁷⁰ Thus Horrocks, *Space and Time in Homer: prepositional and adverbial particles in the Greek epic*,. Arno, New York, 1981, pp214-215.

one can see the eminence, and when on the eminence one can see the rest of the island.

8.6 On being lost: Book 10.190–2

Some of the apparent logical inconsistencies, or ‘slips’ in the poem may not be so at all when interpreted as the poet’s persistent internal information structure. The speech by Odysseus to men, when he has returned from the lookout and with the stag, contains a very interesting forthright statement to the effect that he is lost, couched in geographic terms: he knows not where the dark is nor where the dawn:

οὐ γάρ τ’ ἴδμεν, ὅπη ζόφος οὐδ’ ὅπη ἠώς Od. 10.190

This is Odysseus saying that he does not know where they are in an absolute frame of reference. It is neither dawn nor dusk at the time of the statement ; and if the sun is obscured or it is near the zenith Odysseus temporarily may have lost his bearings. Still, it is rather remiss of him not to have established by observation as soon as they got into harbour where dawn and dusk (one deduced from the other) are with respect to landscape features of the island – a normal wayfinding activity. In fact a few verses before Odysseus the narrator has referred to the sun’s setting and rising as timing their activities, so to an audience (and to me) this may have been at first hearing a little surprising. It may have been a standard metaphor for being completely lost, in effect, “We are truly lost this time”. However there seems no reason – or not a consistent reason within the story – for being ‘more’ lost this time than any other. Odysseus knows how to navigate by the stars as we (though not the Phaiakians) have been told by the poet at the beginning (5.271-275). Therefore Kalypso can with confidence give him the exact course in these terms when she wants him to get to Phaiakia (‘keep Arctos on your left’ [Od.5.276-7]).⁴⁷¹ This contrasts with all other sailings which are expressed as ‘we sailed / rowed on and reached X’. The line (190) has been thought to need some comment. Heubeck for example takes it as a ploy by Odysseus to get

⁴⁷¹ Without restating Ithake as the destination: she simply sends him ‘away from the island’ in the same words as she had expressed the assurance of help to him after the visit of Hermes (‘ἦδη γάρ σε μάλα πρόφρασσ’ ἀποπέμψω ... ὡς κε μάλ’ ἀσκηθῆς σὴν πατρίδα γαῖαν ἴκηαι’ Od.5.161/168). It is certainly natural enough for Kirke to use this affective description in place of the toponym as she, under promise to Hermes/Zeus wishes to convey to him, not that promise, but her own sincerity (‘κάμμορε, μή μοι ἔτ’ ἐνθάδ’ ὀδύρεο, μηδέ τοι αἰὼν | φθινέτω, Od. 5.160-1) and equally natural for Odysseus, in view of their previous exchange, to accept the information as literally Ithake. However it is strange that Ithake is not mentioned by name at some stage ...

the men to follow him, to investigate the smoke and meet the nymph.⁴⁷² This is indeed a manipulative strategy typical of Odysseus; however (and this is something I did not realise myself when I first wrote this analysis) at least the poet is not manipulating his audience and is strictly consistent: the groundwork has been laid at verse 140-1 (quoted *supra*) where they are guided into harbour and all the way up on the beach by a god – perhaps in darkness or a divine mist – hence with excuse not to have made the usual observations.

8.7 Kirke's island - Conclusion

Every normal hearer or reader has a process for understanding the spatial references in a text and an automatic process for integrating them to the spatial mental model: interpretation of space is not optional. The fact that people do hold a detailed and ontologically diverse cognitive model of space in response to spatial stimuli – whether descriptive or by direct experience – entitles us to look for the effect of any ‘transference’ on that mental model, and hence on ability to interpret the space of the story.

The guiding principle of the analysis here is to show how the minimal spatial information on Homer's spatial armature can be interpreted as spatial information, and what sense it makes under that assumption, rather than under the assumption that isolated phrases are applied because they were appropriate to the theme of the episode – meeting a ‘dread goddess of human speech’. This is a spatial literalist interpretation which does not entail identification with the actual. I am inclined to conclude that Aiaia is real by virtue of the fact that direction information is completely absent so that no inconsistency can develop.⁴⁷³

⁴⁷² W.W. Merry & James Riddell (eds.) *Homer's Odyssey*, Books 1–12, London, Vol 1. 1886. *ad loc.* compares the expression to *Iliad* 12.239 and Hector's ‘I don't care whether toward Dawn or Dark’ meaning ‘I do not care whatsoever’ as indicating East and West are the naturally stated extremes (interesting that in that line Dawn=on the right and Dark = on the left, so he is facing North. Heubeck, *Commentary*, 189-97, the ‘speech achieves exactly the effect needed for a plan which he has good reason not to present *expressis verbis*. Analytical objections to his speech ... are thus unjustified.’ But Odysseus is reporting his own words in the context of a narration of his actions to the Phaiakians.

⁴⁷³ Compare this with the conclusion for the topology of the Odysseus-Nausikaa meeting place – discussed in Chapter 9 *infra*.

Chapter 9

Odysseus and Nausikaa episode (*Od.* 5.452 to 6.317)

9.1 Odysseus and Nausikaa meet in space

This chapter returns to consideration of large-scale space in taking as its subject the meeting of Odysseus and Nausikaa which takes place in Book 6 of the *Odyssey* (prefaced by some verses from Book 5). As before, I ask whether the place specification reveals a particular perspective or conforms to any frame of reference system.

If we assume that the passage from the end of Book 5 where Odysseus is in the sea looking towards land to scenes set on the shore at the beginning of Book 6, in which Odysseus meets Nausikaa and the maids, is a coherent passage, then *ex hypothesi* we expect to be able to show how the terrain features relate to each other: how they do – or do not – form a consistent space.⁴⁷⁴ The features acting as fixed points or landmarks in this space are four: a shoreline, a river, some bushes, and some washing pools.

The meeting of Odysseus and Nausikaa takes place between land and water once the river god has brought a ship-wrecked Odysseus safe to land at the river mouth. Odysseus is exhausted and, after observing the terrain, decides to move out of the river to seek shelter under some bushes where he falls asleep until woken by women's voices. The women had been doing clothes washing in the river which has convenient washing pools and by this time had spread out the clothes on the shore and were playing a ball game while waiting for them to dry. The excited shout raised when the ball goes in the river wakes Odysseus, who then introduces himself to Nausikaa as a suppliant and requests guidance to the city and some clothes. Nausikaa declares herself willing to help and recalls her women from where they have fled on seeing Odysseus' disreputable appearance. They lead him to the river to wash as instructed and return to their mistress. When he has washed and dressed, Odysseus goes to the shore to sit apart. Finally, the dry clothes got in, they all set off together back to the Phaiakian palace with the mule cart, leaving the river.

⁴⁷⁴ See the summary of determinate and indeterminate spaces in section 6.3.1 *supra*.

The large-scale space in which this action takes place is never described for its own sake; its nature and extent are indicated by a mere 17 expressions scattered through 358 verses from Book 5.452 to near the end of Book 6 at verse 317 (table 11.1). If the episode is defined in spatial terms it begins when Odysseus gets to land and ends when the actors get to what is clearly a different place: a grove, sacred to Athene, between shore and city. I will discuss these locative expressions in turn and then interpret them in terms of contribution to spatial meaning.

Nausikaa, who is driving the mule cart, leaves the river to return to the palace at 6.317 (αἰ δ' ὄκα λίπον ποταμοῖο ῥέεθρα). Odysseus, at first following on foot with the maids, remains at the grove of Athene while Nausikaa goes on to the city. Line 317 therefore closes the spatial frame which is represented as a whole by the streams of the river (ποταμοῖο ῥέεθρα). In the 419 lines (or 358 taken from when Odysseus actually gets to land at 5.453) there are only a few dozen statements which anchor the place.

Turning to the locative information in the *Odyssey* passage, although some statements I have identified as locating the narrative are verbs of movement, it is doubtful whether these should be classified as route information. Prepositional phrases such as ἐς ποταμοῦ προχοάς and πρὸς δῶμα indicating goal of motion are part of a route description. On the other hand, there is some survey-style description in the specification of where the bushes (at first ὕλην then δοιοὺς θάμνους) are. The wood is up a slope as Odysseus characterises it before he gets there (5.470 ἐς κλιτὸν) which he would have to go up to to reach (5.470 ἀναβάς); when he gets up there (5.475 εὔρεν) the wood is specified to be near water which we presume to be the river (5.475 σχεδὸν ὕδατος). It is surprising at first that this is presented as a fact only discovered when Odysseus is there: by definition of σχεδὸν as representing a symmetrical locative relation if the fact was knowable it was knowable when Odysseus was at the river (that is, rather than εὔρεν we would expect a verb of reaching (eg. ἵκε) or a copula). None of the modern commentators remarks on the use of εὔρεν here. The Murray-Dimock translation fudges the point ‘he set out for the wood and he found his spot near the water beside a clearing’, which by renewing the referent of τὴν ‘explains’ the use of εὔρεν. But this is not justified by the Greek.⁴⁷⁵

⁴⁷⁵ Homer, *The Odyssey*, translated by A.T. Murray, revised by George Dimock, 2 vols., Cambridge, Mass, Harvard University Press, 1998, ad loc.)

Richmond Lattimore has ‘he went to look for the wood and found it close to the water in a conspicuous place’ which grasps the nettle of the locative expressions but makes logical nonsense in English (if something is conspicuous, one does not ‘go to look for it’).⁴⁷⁶

The explanation seems to be that this is a route description rather than a survey description. We recall from chapter 6 that a survey description locates objects by an external frame of reference such as points of the compass or other external fixed points, whereas a route description addresses readers in the second person and describes locations with respect to the reader’s suggested position in the environment (section 6.3.3). By the choice of the verb εὔρεν one’s mind’s eye is taken along Odysseus’ route uphill to the wood: although Odysseus could see some likely bushes, worthwhile to investigate, he only decided it was a good spot to rest when he got there (thus what he ‘found’ was its function as a good spot, making the Murray-Dimock translation apt after all).

Having found the two bushes, Odysseus goes to sleep under them. Athene’s visit to the palace of the Phaiakians and Nausikaa’s scene with father and mother together form a spatial digression after which the scene returns to the place beside the mouth of the river. In fact the audience does not certainly know that the same place is meant until Odysseus is woken at the sound of a shout (6.117) although it is presaged a few verses before.

Orientation is one of the basic variables which is missing from this spatial description. With the sole exception of the θάμνους which are ἐς κλιτῶν (not clear whether it is the river bank) relationships among spatial referents are not given; neither an extrinsic descriptive frame (e.g. ‘A north of B’, ‘C inland of D’) nor a personal frame of reference is used (e.g. ‘Odysseus found bushes on his left and washing pools further along on his right’). The problem begins immediately, when Odysseus is said to get to land at the outflow of a river but since we cannot imagine him rescued while actually in the river, and the river god has in fact held up the flow, and our view is from sea inland as we followed his struggles to get to land, we needed some indication of whether it was the left or right bank which he gets to shore on.

⁴⁷⁶ Richmond Lattimore, *The Odyssey of Homer*, New York, Harper & Row, 1967.

Lacking this, our mental model of the space which is required to picture the river again when Nausikaa arrives there, may be inaccurate.

Table 9.1

place	line	actor	phrase
land (sighted)	5.392-3	Odysseus	ὁ δ' ἄρα σχεδὸν εἶσινε γαῖαν ὄξυ μάλα προῖδών, μεγάλου ὑπὸ κύματος ἀρθεῖς.
river mouth	5.452-3	Odysseus	πρόσθε δέ οἱ ποίησε γαλήνην, τὸν δ' ἐσάωσεν <u>ἐς ποταμοῦ προχοάς</u>
river	5.462-3	Odysseus	ὁ δ' ἐκ ποταμοῖο λιασθεῖς σχοίνῳ ὑπεκλίνθη
wooded hill	5.475-6	Odysseus	βῆ ῥ' ἴμεν <u>εἰς ὕλην</u> · τὴν δὲ <u>σχεδὸν</u> <u>ὔδατος εὔρεν</u> <u>ἐν περιφαινομένῳ</u>
bushes	5.476	Odysseus	δοιοὺς δ' ἄρ' ὑπήλυθε θάμνους
river	6.85	Nausikaa + women	αἱ δ' ὅτε δὴ <u>ποταμοῖο ῥόον</u> <u>περικαλλέ' ἴκοντο</u>
washing pools	6.86	located object	ἐνθ' ἧ τοι πλυνοὶ ἦσαν ἐπηετανοί
river	6.89	mules	καὶ τὰς μὲν σεῦαν <u>ποταμὸν πάρα</u> <u>δινήεντα</u>
holes	6.92	women	στεῖβον δ' <u>ἐν βόθροισι</u> θοῶς

place	line	actor	phrase
shore	6.94-5	clothes	ἐξεΐης πέτασαν <u>παρὰ θῖν' ἀλός</u> , ἦχι μάλιστα λάιγγας ποτὶ χέρσον ἀποπλύνεσκε θάλασσα.
river banks	6.97	women	δεῖπνον ἔπειθ' εἴλοντο <u>παρ' ὄχθησιν</u> <u>ποταμοῖο</u>
river eddy	6.116	ball	ἀμφιπόλου μὲν ἄμαρτε, <u>βαθείη δ'</u> <u>ἔμβαλε δίνη</u>
bushes	6.127	Odysseus	ὧς εἰπὼν <u>θάμνων ὑπεδύσετο δῖος</u> <u>Ὀδυσσεύς</u>
sand spits?	6.138	women	τρέσσαν δ' ἄλλυδις ἄλλη <u>ἐπ' ἠμόνας</u> <u>προῦχούσας</u>
river	6.210	Odysseus	λούσατέ τ' ἐν ποταμῷ, ὄθ' ἐπὶ σκέπας ἔστ' ἀνέμοιο.
river	6.216	Odysseus	ἦνωγον δ' ἄρα μιν λοῦσθαι <u>ποταμοῖο</u> <u>ρόῃσιν</u>
shore	6.236	Odysseus	ἔζετ' ἔπειτ' ἀπάνευθε κιῶν ἐπὶ θῖνα θαλάσσης
river	6.317	mules	ἡμιόνους· αἱ δ' ὄκα λίπον ποταμοῖο ρέεθρα
another place - grove of Athene	6.321-2	N + O + women	δύσετό τ' ἠέλιος καὶ <u>τοὶ κλυτὸν</u> <u>ἄλσος ἴκοντο</u> <u>ἱρὸν Ἀθηναίης</u> , ἴν' ἄρ' ἔζετο δῖος Ὀδυσσεύς

9.2 Analysis

To begin a little before the beginning, Odysseus sights land when raised up on a wave at 5.392 (ὁ δ' ἄρα σχεδὸν εἴσιδε γαῖαν) but does not get into the river (as a halfway house to getting to shore) until sixty verses later. Those sixty verses represent his

struggle with the sea and ensure that our point of view is subsumed in Odysseus': from the sea we look toward land. The river-god halts the flow so as to make a peaceful place in front (line 452-3 πρόσθε δέ οἱ ποίησε γαλήνην). He is not on the bank yet as when he does get out we are told so explicitly at 5.462 (ὁ δ' ἐκ ποταμοῖο λιασθεῖς). Observing that there is a shady wood up a slope (5.471 ἐς κλιτὸν), he goes there (5.475 βῆ ῥ' ἴμεν εἰς ὕλην). The wood (or clump of trees) is near the water and visible all round (5.476 ἐν περιφαινομένῳ that is we might say it was an isolated clump of trees).⁴⁷⁷ When he gets there he gets under two bushes (476 δοιοὺς θάμνους) growing so intertwined that they exclude sun and rain. He makes a bed from a very ample heap of leaves (5.483 φύλλων γὰρ ἔην χύσις ἤλιθα πολλή). A further 94 verses closing Book 5 and beginning Book 6 are taken up with a simile, a spatial digression and other narrative.⁴⁷⁸ The narrative introduces Nausikaa whose journey we now follow as she leaves the palace with cart, clothes and attendants (6.81-84) and reaches a river (6.85 αἰ δ' ὅτε δὴ ποταμοῖο ῥόον περικαλλέ' ἴκοντο) part of which (6.86 ἐνθ' ἦ τοι) were the washing pools which are her objective. The washing pools are described as ever reliable and the abundant fine water (6.86-87) is a 'permanent feature of the landscape' indicated by descriptive present tense.⁴⁷⁹ The river itself is the objective of the mules, who crop the grass beside it (6.89-90 τὰς μὲν σεῦαν ποταμὸν πάρα δινῆεντα | τρώγειν ἄγρωστιν μελιθδέα). The women wash the clothes in the river (6.91-3) but spread them out to dry on the pebbly shore (6.94 παρὰ θῖν' ἀλός) so it is certain that the scene remains near the mouth of the river (as we expect). They eat lunch by the bank of the river (6.97 παρ' ὄχθησιν ποταμοῖο), then throw a ball to each other, reminding the poet of Artemis and nymphs on a mountain (6.102-108) which makes a spatial digression. During play the ball goes into a deep eddy (6.116 βαθείη δ' ἔμβαλε δίνη) indicating that they are still near the river.

Odysseus is woken up by their shouts of laughter and sets off to meet them. The attendant women, though not Nausikaa, scatter in different directions toward the projecting spits of the beach (6.138 ἐπ' ἠϊόνας προῦχούσας). As he wakes, he, echoing the poet, thinks of nymphs:

⁴⁷⁷ Note that this is not the same as saying it was 'in a clearing' which in English conjures up a three-part structure.cf. the Murray-Dimock translation 'near the water beside a clearing' (Homer, *The Odyssey*, Books 1-12).

⁴⁷⁸ Athene visits Nausikaa 6.2ff incorporating the history of the Phaiakians 6.4-12 and Nausikaa and father and mother in palace 6.48-80.

⁴⁷⁹ Alfred Heubeck, Stephanie West, J.B. Hainsworth, *A Commentary on Homer's Odyssey*, Volume I, ad loc.

αἰ ἔχουσ' ὄρέων αἰπεινὰ κάρηνα
καὶ πηγὰς ποταμῶν καὶ πίσσα ποιήεντα Od. 6.123-4

who tenant the steep tops of mountains
and springs of rivers and grassy meadows

The place where Odysseus is has a river, but not the sources of a river, and not mountains. It has grass sweet, at least, to horses (6.90 ἄγρωστιν μελιθέα).⁴⁸⁰ The nymphs and their habitat briefly imagined by Odysseus is sufficiently different from the real scene to make it another spatial digression – a place which we, the audience, will picture then withdraw from to recover our impression of the place of the characters. Our information about the space is extended when the maids scatter in fright towards the projecting spits of the beach (6.138 ἐπ' ἠιώνας προύχουσας) at Odysseus' appearance. One would like to know precisely what topographic feature this phrase refers to. There would naturally be two spits if we are to think of them as spits either side of the river mouth formed by its flow. But this raises the difficulty that the young women would not be running out onto both, as the objective is quick escape so the spits must be on the same side of the river.

9.2.1 Extending the field of view: the meaning of ἐπ' ἠιώνας προύχουσας

As in other cases where modern scholars have been in doubt about the meaning of a word or phrase, they have tried to resolve it via etymological analysis or by fitting it into some appropriate context and inferring meaning.⁴⁸¹ The meaning of ἐπ' ἠιώνας προύχουσας is doubtful partly from the ambiguity of ἠιών and partly from its plural form and partly from the use of a present participle of προέχω. For ἠιών LSJ in a rather short entry offers 'shore, beach' without expressing any doubt; but this line (6.138) clearly, by its use of the plural and the context of people running onto them (plural), indicates something slightly different from the English words 'beach' and

⁴⁸⁰ Richard Cunliffe, *A lexicon of the Homeric dialect*, University of Oklahoma Press, Norman, 1963 entry = μελιθέης gives all occurrences, which are listed as 'of wine', 'of fruit', 'of beeswax', 'of clover or grass' (this ref) and 'applied to one's life or soul' and to 'homecoming'. This makes it fairly clear that μελιθέης refers not to an intrinsic quality of a substance but to its welcomeness to (the taste of) the agent (NB. Cunliffe, *Lexicon* does not give all occurrences for every entry, though for this entry it does, the distinction indicated by the typographic conventions in the entry).

⁴⁸¹ A third option, always available, is to assume that the poet was using a word neither he nor his contemporaneous audience knew the meaning of.

‘shore’ which denote undifferentiated spaces (singular). There is a synonym in θίς (also = ‘beach or shore’) which occurs rather more often than ἠιών.⁴⁸² θίς and ἠιών might be simple synonyms occurring in free variation, or they might represent features or points of view of the same topography, for example the shore as seen from the sea as opposed to the shore one can walk along.⁴⁸³ When we add the participle προὔχουσας a meaning of ‘projecting beaches’, that is, ‘spits’ is possible. Merry and Riddell are in no doubt: ‘the scene is laid near the mouth of a river so that there is no difficulty here in translating “jutting spits,” probably of low sandy beach, common in such places.’⁴⁸⁴ That is, their argument is from probability derived from expected topography. They have a good note on the previous occurrence of ἠίονας (5.418 ἠίονας τε παραπληγας): they query ἠιών, remarking that its etymology is unclear. They summarise uses and conclude that ‘the general result from a comparison of these passages seems to be that ἠίονες are jutting horns of shore, especially such as are found at the mouths of rivers, for the most part lying low, though not always’ thus continuing the argument from expected topography grounds.⁴⁸⁵ If ἠιών is not necessarily low-lying shore then ἠίονας προὔχουσας are not (necessarily) either. But while we may be satisfied on general reasonableness grounds (the young women run out onto them with the object of getting out of Odysseus’ way quickly: they are not likely to be steep) that ἠίονας προὔχουσας are low-lying spits of the beach, it is important to establish whether there is ambiguity, generality or vagueness before declaring that the phrase makes a contribution to the description of the small-scale space begun with Odysseus’ getting to land.

Lucian uses προὔχουσας in the phrase τὰς προὔχουσας πόλεις with a transfigurative meaning of prominent socially or intellectually as Harmon’s translation shows. The passage runs:

τίς οὕτως ἐν λόγοις μεγαλότολμος, ὡς ἐπὶ μὲν τοὺς τρεῖς μοιχοὺς ἀντὶ
 ξίφους τρίαιναν αἰτεῖν; τὸν δὲ Θεόπομπον ἐπὶ τῷ Τρικάρανῳ κρίνοντα
 φάναι τριγλώχινι λόγῳ καθηρηκέναι αὐτὸν τὰς προὔχουσας πόλεις;

⁴⁸² θίς occurs 37 times (13 *Iliad*, 24 *Odyssey*). ἠιών occurs 13 times (9 *Iliad*, 4 *Odyssey*). (Statistics from a TLG search (<http://stephanus.tlg.uci.edu/inst/fontsel>.)

⁴⁸³ One proposed etymology is from εἶμι (Merry & Riddell on Od. 5.418)

⁴⁸⁴ W. Walter Merry & James Riddell, *Homer’s Odyssey*, 1886, London, Vol 1, ad loc. (p259).

⁴⁸⁵ Merry & Riddell, *Odyssey*, vol. 1, p246.

Who is so greatly daring in language as to ask for a trident instead of a sword to use on three adulterers, as you did? Or to say of Theopompus, in passing judgement on his *Tricaranus*, that he had razed the outstanding cities single-handed with a three-pronged book?

Lucian *pseudol.* 29.4 (trans. A.M. Harmon)⁴⁸⁶

Lucian is talking about words in this barbed reply to a critic of his own, without any overt reference appearing to the *Odyssey* phrase. However it is interesting that a cleansing word (καθηρηκένας) appears within these few sentences as another verb parallel to the *Odyssean* clothes washing passage.⁴⁸⁷ Lucian always is so doubly and triply ironic a writer that he is hard to interpret, but for the same reason I am tempted to amend Harmon's translation and see in his (Lucian's) use of προύχουσας πόλεις here a reference to 'upstanding cities', though I am not sure that gets us anywhere – perhaps, if this is the feeling of the word, Lucian is thinking precisely of our passage in the *Odyssey* – and προύχουσας there does mean 'projecting up'.

The B scholia gloss προύχουσας as προβεβλημένας or προεχομένας and explain the geographical term as projecting in the sense of a mountain spur, but this scarcely makes sense if ἠϊών means shore or beach.

The whole scholia vetera entry for line 138 is:

χωρὶς τοῦ ἰῶτα τὸ ἄλλη. P.

ἐπ' ἠϊόνας προύχουσας] προβεβλημένας, προεχομένας, ἦτοι πρὸς τὰ ὑψηλότερα μέρη τῶν ὄρων. B.

Except the iota P.

ἐπ' ἠϊόνας προύχουσας] placed in front, jutting out, properly with respect to the highest parts of mountains

Dindorf, p305⁴⁸⁸

⁴⁸⁶ Lucian, *Works*, translated by A.M. Harmon, 8 vols., Heinemann, London, 1967.

⁴⁸⁷ Earlier in this essay at 27 Lucian quotes Homer – or rather quotes his 'critic' misusing Homer, but this proves little in itself (Lucian, *Works*, vol. 5, pp406–7 and Harmon's note).

⁴⁸⁸ Dindorf, Wilhelm. *Scholia Graeca in Homeri Odysseam*. 2 vols in 1. Hakkert. Amsterdam. 1962, p305. Eustathius also has a comment on this line but is only interested in the psychology of the young women whose flight according to him is caused by youthful inexperience – or rather the inexperience

The definitional use may be taken as *Iliad* 23.61:

Πηλεΐδης δ' ἐπὶ θινὶ πολυφλοίσβοιο θαλάσσης
κεῖτο βαρὺ στενάχων πολέσιν μετὰ Μυρμιδόνεσσιν
ἐν καθαρῷ, ὅθι κύματ' ἐπ' ἠϊόνος κλύζεσκον

And the son of Peleus lay on the shore of the ever-sounding sea groaning
deeply in the midst of the many Myrmidons, in a clear space, where the
waves were breaking on the beach

In this passage we have both words for shore: θίς and ἠϊών. θίς is usually⁴⁸⁹ in the formula 'shore of the sea' where sea is either θαλάσσης or ἄλδος. The phrase ὅθι κύματ' ἐπ' ἠϊόνος κλύζεσκον is exegetical to ἐπὶ θινὶ πολυφλοίσβοιο θαλάσσης⁴⁹⁰

The remaining doubt about the meaning of this expression, given that the plural might refer to sand spits at either side of the river mouth, as in a tidal river with flat outflow, is that quite certainly the young women would not be running out onto both – they must all be on the same side of the river as each other. So for the time being we will have to think of it as spits formed randomly in the shoreline. At 6.236 Odysseus washes and goes to sit apart by the shore (ἔζετ' ἔπειτ' ἀπάνευθε κιῶν ἐπὶ θίνα θαλάσσης), indicating a separation of the washing part of the river and the beach.

Nausikaa now wonders at Odysseus' beautiful appearance (indicating to the audience that he is within sight of her) but she speaks to the women as though in private and out of earshot of Odysseus, indicating that she and the women are together and separate from Odysseus. The women are, then, not at the river and not on the shore but in some polygonal space between. There is a spatial digression created by

of young females. His brief sentimental note repeats the idea of innocence (ἀπειρία, τὸ ἄηθες): καὶ πᾶσα μὲν γὰρ φασὶ νεότης, διὰ ἀπειρίαν ἔμφοβος. ἢ δὲ θήλεια, μᾶλλον. μάλιστα δὲ, αἱ ἐν τρυφῇ διὰ τὸ ἄηθες καταπλήττονται. (Eustathius. *Commentarii ad Homerum Odysseam*, 4 vols, Olms, Hildesheim, 1960, ad loc.)

⁴⁸⁹ Three exceptions: *Iliad* 9.46, *Iliad* 23.693 in a simile where it means a sandbank rather than shore in general, *Odyssey* 12.45 where it means not shore but heap.

⁴⁹⁰ Silvia Luraghi, *Prepositions and Cases*, pp298, 302, 303 notes that ἐπὶ plus genitive (ἐπ' ἠϊόνος) denotes 'vertical orientation between the trajector and the landmark' and ἐπὶ plus dative (ἐπὶ θινὶ) denotes 'final contact of the trajector with the landmark', but that in fact occurrences of genitive/dative are 'virtually identical' and that it is not always possible to distinguish the motivation for choice of case.

Nausikaa as she speaks to Odysseus and describes the city and harbour of the Phaiakians. Then the mules, driven by Nausikaa and followed by Odysseus and women, leave to return to the city (6.317 αἱ δ' ὄκα λίπον ποταμοῖο ῥέεθρα) and we hear no more of the place beside river and sea.

9.3 Interpreting indications of space

There are two questions we can ask of this data: firstly, whether there is enough context supplied by these phrases for the audience of the poem to form and hold an impression of place; and secondly, what schema do the spatial references fit into? We recall that it is established experimentally that readers of a coherent text form a generic mental model incorporating all locative relationships regardless of whether the text gives the information in the form of a route description, or gives it hierarchically in survey form (as a description of a layout). The test for the generality of a mental model as something independent of literal memory for text is that after reading a route description, subjects can subsequently answer survey-style questions about relationships of objects in the space which are only implied in the text. The converse is also true: readers of a survey-style description can describe routes. And when the text is coherent they can do this accurately and demonstrate it by drawing maps.⁴⁹¹

Of the current passage we can ask:

- (1) does it correspond to a survey description, a route description, or neither?
- (2) is there enough information to create a mental model?
- (3) is the spatial information coherent or are there inconsistencies?

Clearly there is minimal information about the relation between objects in space in a layout sense (or vertically) and there is no explicit distance information. Distances, however, are certainly implied. Michael Nagler has pointed out the importance of the 'as far as one can shout/be heard' motif which is present a little before our passage at 5.400 as Odysseus swims along the shore looking for a place to get to land.⁴⁹² As far

⁴⁹¹ The influential paper by Holly Taylor and Barbara Tversky, 'Spatial Mental Models Derived from Survey and Route Descriptions', *Journal of Memory and Language*, 31:2 (1992):261-292, presents results of four experiments which demonstrate that a spatial mental model (of unknown structure) is formed independent of literal memory for text or for storyline. I have summarised that research here.

⁴⁹² Michael Nagler, *Spontaneity and Tradition: a Study in the Oral Art of Homer*, Berkeley, 1974, pp29-30.

as relative positions go, natural topography gives us river mouth adjacent to shore; and Homer gives us the solitary vertical relation in the statement that the bushes are uphill from Odysseus's position in the river. Nausikaa comes to the river from the opposite direction from Odysseus, though a meeting is prefigured at 6.14 and washing pools are mentioned as part of the instructions to Nausikaa in her dream at 6.40, the audience does not hear her explicit intention to go to a river until 6.58-9 (ἴνα κλυτὰ εἶματ' ἄγωμαι / ἐς ποταμὸν πλυνέουσα). Since it cannot be supposed that the subsequent conversation, which has so charmed all later readers, involves their shouting at each other across the river, Nausikaa must be on the same side as Odysseus. So the minimum information we needed was a statement of which bank Odysseus got out on. Logically, this by itself will fully determine whether Nausikaa has the river on her left or right as she approaches from the other, inland, direction. Actually the route description should be over-determined by inclusion of a left/right statement, to enable the hearer to integrate to the total space model before realising that fact. So we can say that the locative information given, though not internally inconsistent, is under-determined for an actual space: it could represent a space on the left bank or on the right bank of the river. The two possible topologies are shown in figure 9.1.

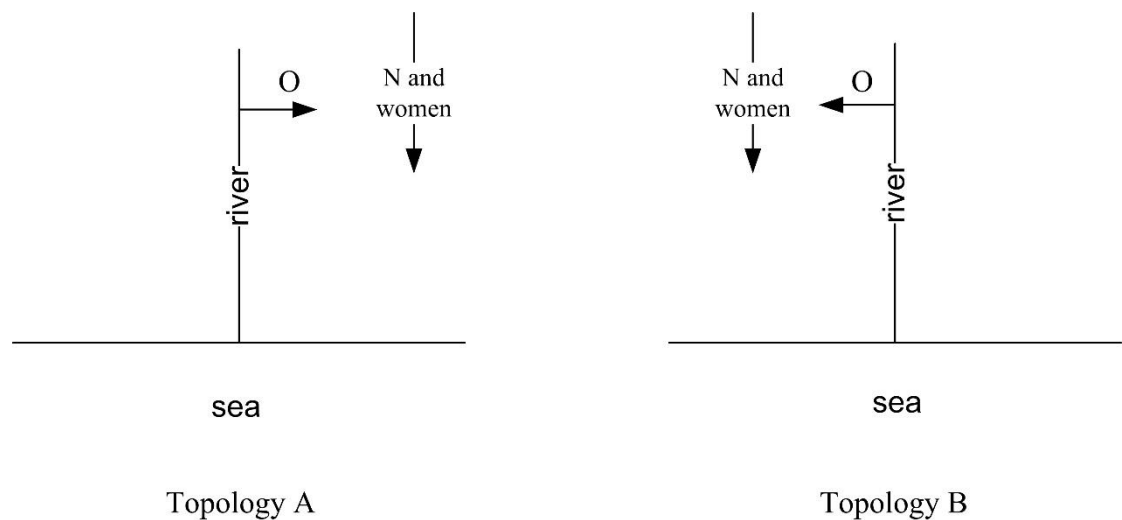


Fig. 9.1 Meeting of Odysseus and Nausikaa in space

What is the significance of the indeterminacy in the spatial information? This passage in the *Odyssey* is not a specification of a false space as in an Escher painting. It describes an under-determined real (though of course not necessarily actual) space.

Change of focaliser in the narrative as occurs here would already present difficulties beyond those in the Taylor & Tversky mental model demonstrations⁴⁹³ and the spatial digressions may also interfere with ability to carry a mental model of a single space; but there is another aspect of representation of space which needs to be considered.

In addition to the topological relations already discussed, the second question I posed was what sort of spatial schema or frame of reference is being used in this passage? We recall from chapter 6 that a frame of reference is a coordinate system describing extension in space with three possibilities: intrinsic, relative and absolute. Objects in space may be described in any of these three.⁴⁹⁴ An intrinsic frame of reference specifies the position of one object (the figure) with respect to the geometry of another (the ground) as in ‘he’s in front of the house’ and is therefore a two-part relation extending topological notions. A relative frame of reference expresses the position of objects relative to some relatum – the speaker or some other person, so: ‘he’s to the left of the house’. Even though this statement only mentions two objects (he, house), this is a three-part relation: the third object is interpreted by default as the speaker; hence the speaker is the relatum, the object with respect to which the expression ‘to the left of’ makes sense and is to be interpreted. A relative frame of reference can use something not the speaker as relatum by carefully specifying it: ‘It’s to the left of the tree from where you are sitting’.⁴⁹⁵ The absolute frame of reference relates objects to a general or universal frame (‘he is to the north of the house’).

In our passage we have almost exclusively intrinsic frame of reference, with some doubtfuls. An absolute frame, however, is not impossible, and at this point I would like to speculate that what is in play here is an absolute frame of reference. Though absolute frames typically employ canonical directions such as the north/south/east/west which define the orthogonal axes which are available in modern European languages, other canonical axes are possible, such as ‘the monsoon

⁴⁹³ Though the experiments presented by Taylor and Tversky ‘Spatial Mental Models’ did not involve texts presenting multiple points of view, the authors cite previous work which suggests change of point of view can in fact be taken into account (‘Changing perspective apparently takes time and effort’ op. cit. p 262).

⁴⁹⁴ I follow the classification developed and extensively justified by Levinson as appropriate for cross-linguistic (and cross-modal) discussion and presented in Chapters 2 and 3 of *Space in Language and Cognition* (pp 24-111); Levinson refers to ‘the universality of *Where*-questions’ at p64.

⁴⁹⁵ The example from Levinson, *Space in language and cognition*, p89; and in general, see his careful specification of the relative frame of reference on pp84-89.

direction' employed in some Australian languages. And in fact the frame of reference may consist not of a fixed grid but rather of a set of culturally significant places or specifiers.⁴⁹⁶ In our passage an obvious candidate for such a culturally significant specifier is the river. At only one point (the beginning of this episode, when the river-god stops the flow) is the river the figure as opposed to the ground. In all other references the river is the ground or relatum (that is, the position of other objects is expressed in relation to it: Odysseus gets out of the river, the ball goes into the river, they lunch beside the river, etc. Further, in 3 out of 8 occurrences a circumlocution is used: 'the flow of the river'. I do not think this is merely metonymy or part for whole: it seems to signify also the axis in a spatial reference system.

Finally, I want to offer an hypothesis about the frame of reference in which this passage should be interpreted. Although the space is under-determined by the expectations of a culture for which the absolute frame of reference on fixed axes is naturalised and for which statements about rivers must refer to a particular river on a particular occasion ('the boat has gone upstream' etc), we need not assume this is true for Homer's audience. If we are looking at the vestiges of an absolute frame of reference here, then the failure to specify left bank/right bank and so choose between our two topologies is a non-issue. Homer's audience, when they heard 'he got to land at the mouth of the river he struggled out of the river' would automatically swap in the canonical form.

9.4 Summary – Space in the *Odyssey*

There are certain obvious characteristics of the presentation of place in the *Odyssey*. No place is described (except in similes) unless a character is there or about to be there. This is as we expect in literature which is therefore not exactly analogous to the texts from which the experimental psychologists drew their conclusions. I do not think that invalidates the methods; and is significant only if we think that a mental model is formed only when a receiver of narrative is explicitly instructed to do so.

There are four spatial digressions, one lasting 83 verses (6.3-84) or 6-7 minutes, the others much shorter and either signalled as ekphraseis (description of Olympos 6.42.46) or mere references to other places in speeches by Odysseus or Nausikaa (Odysseus refers to Delos, and names Ogygia as an island, Nausikaa refers to the

⁴⁹⁶ Levinson, *Space in Language and Cognition*, p49.

city). All the adventures in the Apologue of the *Odyssey* are spatial digressions, in that at the time they begin to be told the man who will tell them, Odysseus has been in the land of the Phaiakians for several minutes.⁴⁹⁷ The poem's audience has received a sufficient impression of the Phaiakian palace and surrounds to feel that he or she is displacing one place with another. I have argued in this thesis that the spatial schema held by the poet is something we should regard as operating independently, and complementing other aspects of the narration, such as characterisation of certain individuals which might result in many forms of reaction including feelings of connection with those characters.⁴⁹⁸

The 'spatial schema' is not the same as the spatial structure of the *Odyssey*, still less coextensive with the geography of Mediterranean lands. The spatial schema is something between the poet's words and the individual hearer or reader. A poem as long as the *Odyssey*, which is neither read at a sitting or over a short period, nor (as far as we can tell) was it heard at a sitting even by the poets' contemporaries, is firstly likely to induce a miscellany of images of 'country' in hearers' minds, which are subsequently subject to multiple revision and update by those hearers. In the analyses in this Part of the thesis I have regarded the Odysseus–Nausikaa meeting place and Kirke's island as large-scale spaces, which therefore themselves induce a complex cognitive model of space with multiple types of information, not all of which is available at the same instant. In the case of the description of Alkinoos' garden, the addition to the spatial schema is monolithic. The literal reading for space presented here, although it runs the risk of oversimplification of audience response to the huge complexity of the *Odyssey*, has the justification that it is 'pulling out' information which we know is processed and remembered on its own account.

The element which is missing from my analysis is the 'updating' of spatial knowledge which undoubtedly occurred from the poets' eighth-century audiences as

⁴⁹⁷ Avery Andrews has recorded several segments from the *Odyssey* including 54 verses Od. 12.1-54 taking 5 minutes (avg = 5.56 seconds per verse). See <http://members.iinet.net.au/~ada/AveryAndrews/Homer/> for explanation of the rationale behind his recitations and bibliography on the reproduction, necessarily speculative, of Homeric poetry performance. Gregory Nagy has recorded several passages from the *Iliad* including Il. 1.1-6 taking 78 seconds (avg = 4.875 seconds per verse). See http://www.fas.harvard.edu/~classics/poetry_and_prose/homer/homer.html.

⁴⁹⁸ On the ability of Homeric narrative to 'transport' an audience, that is, totally absorb their attention so that they 'feel they are there', see Michael Power, *Transportation and Homeric epic*, PhD thesis, ANU, 2006 at <http://hdl.handle.net/1885/45746>.

well as for modern readers. It would not be impossible to examine the change in the individual spatial schema over multiple ‘encounters’ within the poem within a modern setting using methods similar to the experimental methods I reported in the overview of research in spatial cognition given in Chapter 6.

An aspect I may seem to have glossed over is the distinction between the poet’s cognitive model and that induced in hearer or reader. How, in the first place, could they possibly validly be regarded as the same? And if they are not the same, which one am I talking about? The difficulty here is more apparent than real. I appeal principally to the evidence (summarised in chapter 6) that when a coherent description is generated a reader can interpret and recreate it accurately. I extend that claim, as an hypothesis, to the *Odyssey*. Surely the poet did not need to preface the poem with verses exhorting attention to the consistency of his spatial schema. On the other hand, the various forces affecting the composition of the poems, and their probably long accumulation (for which there is substantial evidence), added to the rewards for improvisation as opposed to those for preserving the existing state,⁴⁹⁹ make it equally unwise to assume coherence in the account of any given space. Alfred Heubeck urges attention to the fact of ‘the structure of form and content, the ordering of material, which is planned precisely and in detail from the very beginning.’⁵⁰⁰ (my emphasis) Such a position, which is not held by all Homer scholars, entails that ‘spaces’ in the *Odyssey* are coherent.

The analysis offered exists within a hermeneutic of literary criticism: it assumes that the text is mimetic and that when something seems to make sense in a certain way it does in fact carry that sense. By abstracting a certain kind of information which is labelled ‘spatial’ we are merely giving ourselves another means, of the many within Homeric studies, to discover more of the sense of the poems; stopping short of the higher purpose of discovering the meaning or purport of an exceedingly long poem created more than two and a half millennia ago, by a method of oral teamwork we do not really understand, in a language no longer spoken.

⁴⁹⁹ See for example the remarks by Alfred Heubeck, ‘General Introduction’ in Alfred Heubeck, Stephanie West & J.B. Hainsworth, *A commentary on Homer’s Odyssey: Volume 1, Introduction and Books I–VIII*, Oxford University Press, 1988.

⁵⁰⁰ *ibid.*, p11.

My argument in this part has been a cognitive effects approach which has been influenced by the original thinking of Michael Nagler when he brings into relation phrases in Homer which may have been generated by the poet from rhythmic resemblance.⁵⁰¹ Nagler points out that even phrases which are but loosely tied syntactically and perhaps not at all closely related semantically, may have a distant phonological heard relation – and that this was a significant part of the way Homer generated meaning.

In this Part I have used terms like ‘evidence’, ‘demonstration’ and ‘proof’ fairly frequently. This is part of the persuasiveness of a new approach, not necessarily part of its realisation or conclusion. Though not all interpretations of Homer and Herodotos are possible, a great many are. My ‘proofs’ are proofs of validity of concept, not proofs of Homer’s meaning, which must rest with the reader.

⁵⁰¹ Though I can in no way approach the satisfying intellectual synthesis which Nagler produces in *Spontaneity and tradition*.

Conclusion

This thesis has taken a multi-faceted view of spatial concepts in the Homeric poems and Herodotos' *Histories* in order not to pre-empt concepts and ontologies of space which might emerge from the three different approaches discussed.

Three observed methods of enquiry employed by scholars to answer questions about space in the poems and the *Histories* form the framework of the thesis. In the body of the thesis I investigated what happens in each: what assumptions the investigators in each case seem to have made and what their conclusions were. The thesis is, therefore, a piece of historiography in the sense that it takes various forms and narratives and makes one single narrative of them.

In Part I Autopsy I discussed the practical, fieldwork-oriented mode of acquiring geographical knowledge. That stream is conspicuous in Homeric studies through the long history of the poems (they were never 'lost') and the impetus given by the excavations by Schliemann in the later nineteenth century on the mound at Hissarlik which, if we are to sheet home the site of the *Iliad* in the consciousness of Greek hearers as well as our own to an actual place, must be the place.

The autopsy, or landscape observation, tasks which Walter Leaf and J. V. Luce set themselves in the twentieth century when they investigated and described the Troad and Ithake share some of the same tasks as a geographer making a landscape and geographical report on a region: the task of describing. I therefore began with an analysis of the nature and founts of geographical description as practiced by modern geographers before presenting an analysis of the descriptions of Leaf and Luce.

I then analysed how the starting point for the classicist-geographers, the Homeric poems, which a priori distinguishing their project from that of modern geographers such as E. E. Evans in describing the Mourne country of Ireland, affects the resultant geographical description.

In Part II Visualisation I examined graphic forms of commentary on the texts. I suggested in the introductory chapter 3 that Homer and Herodotos graphics are transforms of the spatial knowledge in the texts.

The makers of pseudo-maps discussed in chapter 4 looked for a complete, that is, consistent, system of geographical knowledge on the part of Herodotos. Rennell, the only one of the pseudo-map makers qualified in cartography, drew a map very detailed in terms of topographic features and place names and without decoration. The work in which the map appears was referred to as an authority throughout the nineteenth century. However it is the later nineteenth-century map drawn by Bunbury which continued to be reproduced in the twentieth. The schematics discussed in chapter 5 show classicists manifesting the same awareness of a legitimate spatial knowledge by Homer and Herodotos and a need to demonstrate this as part of the textual exegesis, but they are freed by the schematic form from making a demonstration of completeness and consistency on Herodotos' part.

Clay's Web-based animations by their very format are a departure and development of 2D graphics, though they share a characteristic with 2D graphics of being keyed to specific places in the text. Hestia diagrams of Herodotos' knowledge, similarly a new departure by their format, show only nodes (named places) and map connections which may have existed in Herodotos' mind as implied by frequency of mention.

An initial division into pseudo-maps and schematics which seemed to conform to an historical development (respectively, chapters 4 and 5) was shown based on examples across the nineteenth and twentieth centuries not to be so. Pseudo-maps present a past-present conundrum embedded in the form itself—a form which uses modern cartographic style to present geographical facts obtained from the texts.

The impulse to draw maps, 2D graphics which use space to represent space, is universal and timeless across cultures, so that the modern graphics can themselves be analysed fruitfully for universals of graphic communication which can then be re-applied to the texts. As I described briefly in chapter 3 this would be a triangulation method of textual and graphic exploration in that several modern productions can be laid against each other to see if, through their differences, they point to the lost graphics of the eighth- to fifth-century Greece. As I also remarked in chapter 3 it is

not necessary to impute ‘map immersion’ to fifth-century Greece in order to accept that maps in some form were indeed available to Herodotos and perhaps also to the poet of the *Iliad* three centuries before. Rather, what we are trying to guess at is the form of the ephemeral productions. As a corollary of that task in historiography there is a need to develop a diplomatic of diagrams which would focus on diagram and text as they change under manual copying. The need for a maturer discipline in this area which would help in recovering the true form of cartographic knowledge, on Herodotos’ part especially, is beautifully exemplified in the recent discussion around whether the drawings in the Artemidorus papyrus could possibly be ancient Greek (not the same question as determining definitively that they are).⁵⁰²

The past-present conundrum which is especially manifest in the graphics is also manifest in the results of cognitive science and linguistic analyses which were discussed in Part III Cognition. In that part I presented a survey of results in cognitive psychology bearing on human spatial ability, followed by a series of case studies. The most significant concept in human spatial cognition comes in fact not originally from the experimental psychologists but from a ground-breaking study by a town planner with an ambition to make more liveable cities. Kevin Lynch, whose *Image of the City* was published in 1960 influenced experimental cognitive and computational scientists like Benjamin Kuipers. Spatial perception and cognition has been investigated in the laboratory as well by experimental psychologists such as Barbara Tversky who have tested people’s ability to navigate successfully in a large-scale environment they are not familiar with by means of a map, or to draw a map of a large-scale environment given a description of it. Sketch maps are often used in such experiments to find out how people convert a spatial schema and spatial memory into a 2D plan or survey knowledge. In studies since the 1980s the difference between route knowledge and survey knowledge has been emphasised and the ways people convert between them—enabling them to draw a map of a region they have navigated on foot for example—

⁵⁰² See the discussions, from both philological and historical points of view of the significance of this papyrus, if it is genuine in Kai Brodersen & Jaś Elsner (eds.), *Images and texts on the ‘Artemidorus Papyrus’*: Working papers on P. Artemid. St John's College Oxford, 2008, Stuttgart, Franz Steiner, 2009; Barbel Kramer, ‘The earliest known map of Spain (?) and the geography of Artemidorus of Ephesus on papyrus’ *Imago Mundi* 53 (2001): 115–120; and on the Yes side B. Bravo ‘Artemidoro di Efeso geografo e retore. Per la costituzione e l’interpretazione del testo del Papiro di Artemidoro’, *ZPE* 170 (2009): 43–63; Richard Janko (‘The Artemidorus papyrus’ *CR* 59.2 (2009): 403–410) considers the possibility that it is a forgery by Constantine Simonides; the full critical edition is Claudio Gallazzi, Barbel Kramer & Salvatore Settis (eds.), *Il papiro di Artemidoro (P. Artemid.)*, Milano. LED, Edizioni universitarie di lettere economia diritto, 2008.

has been investigated. There is a universal tendency to ‘rectification’, that is, to ignore slight bends and deviations in the actual environment in subsequent recall and map drawing. And to do the same simplification when showing / remembering / schematising spatial facts known from maps—most people for example think of South America as aligned below (south of) North America whereas in fact it only shares 30 degrees of longitude.⁵⁰³ The difference between topological space and metric space as a major conceptual difference has been established not only by experimental psychologists but also by geographers such as David Mark and colleagues. Their ‘naive geography’ programme was set out in a short article published in 1995 and continued in the 2014 volume of studies on classical authors.⁵⁰⁴

Using the ideas presented in chapter 6 about universals of spatial perception and cognition I analysed passages from the *Odyssey* and the *Histories* to find out whether they presented topological or metric space and whether they conformed to any of the three ‘natural’ perspectives realised by combining route / survey / gaze tour format with a canonical frame of reference (FOR).

The first attempt to demonstrate this with an analysis of Homer’s garden of Alkinoos (chapter 7) was disappointing: Alkinoos’ garden cannot be read as the natural / expected gaze tour or survey, nor does it have the format of a route tour. I included two diagrams, simple mirror images of each other to make the point graphically that the relative frame of reference (with leftness / rightness indicated with respect to the body of an imagined observer) expected with a gaze tour was absent. The diagrams also serve as surrogates for the mental image of the poet (or rather, as a pair, the totality of what we can infer about any possible mental image) and illustrate that the requirements of composition in performance in this case have superseded / triumphed over any impulse to project the contents of a coherent mental model of the space of the garden which the poet may have had.

⁵⁰³ Barbara Tversky, ‘Structures of mental spaces: How people think about space’, *Environment and Behaviour* 35.1 (2003): 66–80 at p74. (Cape Spear in Newfoundland is 52° 37’ W and Punta Pariñas in Peru is 81° 19’ W = difference less than 30 degrees.)

⁵⁰⁴ Max J. Egenhofer and David Mark, ‘Naïve Geography’ in A. U. Frank & W. Kuhn, *Spatial Information Theory*, Lecture Notes in Computer Science No. 988, Berlin, Springer, 1995, pp1–15; Klaus Geus & Martin Thiering (eds.), *Features of common sense geography: Implicit knowledge structures in ancient geographical texts*, Berlin, Lit, 2014.

By contrast, Herodotos' description of the labyrinth (chapter 8) has some characteristics of a gaze tour and some of a survey description: conforming to the expectation that 'real' language users freely mix perspectives in any given description in order to achieve their communicative aims.

Chapter 9 analysed a passage from the *Odyssey* taking a similar approach to chapter 8 of highlighting all locative expressions in order to make sense of them as a whole. But in this case the passage was defined by its sense as a 'description', or designation, of a place rather than by constituting any stretch of verses identified as a book⁵⁰⁵ or even an episode or scene. The passage in fact straddles two books (the end of book 5 and the beginning of book 6) and is defined by its containment of references to a coast with river mouth. My analysis brought out the indeterminacy of the space. The spatial information, except for its indeterminacy with respect to two possible topologies (diagrammed) was the meeting place of Odysseus and Nausikaa. According to research summarised in chapter 6 readers (or hearers) cannot form a mental model from an 'incoherent' description.

If indeed Homer and Herodotos had a 'complex sense of place' and a 'notable sense of theory',⁵⁰⁶ it is not surprising that pluralism is evident in geographical commentary. Part of the sophisticated sense derives from Greece's being a diasporic society consequent on the Ionian migrations,⁵⁰⁷ if not before, as Greek speakers of the sub-Mycenean period became sea-raiders and emigrants from mainland Greece after the invasion of the Dorians. The inward myth, the memory of migration into Greece from earlier homelands in central Europe, was preserved together with the outward myths of the argonauts' venture to the Black sea and the Achaean expedition to Troy told in the *Iliad*. A Greek, therefore, whether he stood on the mainland or elsewhere, always knew something of other peoples and other places. Although, as the now canonical passage in Aristophanes' *Clouds* hints, he may not have known where they were on a map.⁵⁰⁸

⁵⁰⁵ The book divisions of the *Odyssey*, as the *Iliad*, were defined not by the poet, or by the later rhapsodes who were reciters not writers, but by Alexandrian textual scholars some hundreds of years later.

⁵⁰⁶ *Oxford Classical Dictionary*, 3rd edition, sv. 'Geography'.

⁵⁰⁷ John Boardman, *Greeks overseas: Their early colonies and trade*, 4th ed., Thames & Hudson, London, 1999 of which chapter 2 'Background' gives the early history of the migrations.

⁵⁰⁸ *Ar. Nub.*, 200ff. So (line 205) a student of Socrates says αὐτῆ δέ σοι γῆς περίοδος πάσης. ὀρᾷς; αἶδε μὲν Ἀθῆνας. (This is a map of the whole world. Do you see this is Athens?), to which Strepsiades

In discussing space in the Homeric poems and the *Histories* of Herodotos alongside its modern commentary I have tried to illuminate the nature of that complex sense of place. Because I have aimed to write historiography, past and present theories and past and present texts have been conned for ideas. Certain points stand out in relation to the three types of commentary discussed in the three parts of the thesis. The first is their very separateness: the autopsy investigators used maps to orient themselves but did not try to re-map what they discovered; the makers of maps did not verify them on the ground but rather from the text; and the philologists also for their part stay within the realm of textual exegesis, with some exceptions.

The major critical assumption has been that the spatial concepts and the physical geographical awareness which poet and historian possessed will be manifest in their texts and that the texts are long enough to allow valid conclusions. This has entailed ignoring some basic facts about those texts which are normally foregrounded in any analysis. For Homer this is principally the formulaic theory of oral composition in performance and the fact—almost as well established—that it was not one mind which composed the poems (or even each poem). For Herodotos, it is that Herodotos is the historian, the major contemporary source of the history of the fifth-century Greek-Persian wars.

As I argued in the summary to Part II Visualisation, one of the roles of graphic presentation of spatial ideas is to perform a transform of concepts, provided that the past-present conundrum be avoided.

Even the relatively sophisticated distinction between ‘topological’ and ‘metric’ space which is now established by research not only in the cognitive sciences but also in humanities, massively over-determines the enormously complex spatial schemas any individual has in his or her head at any one time. But the purpose of any schema is to simplify, in order to enable insight, so the distinction has already been fruitful in the

replies (line 207-8) τί σὺ λέγεις; οὐ πείθομαι, ἐπεὶ δικαστὰς οὐχ ὄρω καθήμενους. (What do you mean? I don't believe you, I can't see jurymen sitting down.) N.G. Wilson, *Aristophanis Fabulae*, Oxford University Press, Oxford, 2007 (Consulted online March 2014 at TLG <http://stephanus.tlg.uci.edu/inst/fontsel>). This, and all passages in classical texts referring to maps, are collected and discussed in O. A. W. Dilke, *Greek and Roman maps*, London, Thames & Hudson, 1985 (*Clouds* passage discussed on p26).

essays noted above, especially perhaps the essay by Pascal Arnaud on the experience of ancient mariners and how it affected the later geographical texts.

The *Iliad*, the *Odyssey* and the *Histories* are old works of literature which have been continuously read for two and a half millennia; for that reason they give us an opportunity to understand not only past events but different *mentalités*. But the process of understanding is not just by ‘applying’ a new theory e.g. of spatial cognition so that every generation we look for something ‘new’ in the texts (which cannot but be a self-contradictory exercise) but by using these old texts to reflect those new understandings back on ourselves.

What this thesis has shown is that past commentaries, whether of individual autopsy, graphic representation or cognitive-linguistic analysis, in their historical roots as forms of commentary, and in their continuing relevance separately, announce the complexity of spatial experience reflected in the texts of Homer and Herodotos.

Abbreviations

<i>AI</i>	<i>Artificial Intelligence</i>
<i>AJA</i>	<i>American Journal of Archeology</i>
<i>AJP</i>	<i>American Journal of Philology</i>
<i>Behav & Brain</i>	<i>Behavioral and Brain Sciences</i>
<i>BMCR</i>	<i>Bryn Mawr Classical Review</i>
<i>BSA</i>	<i>Annual of the British School at Athens</i>
<i>Class et Med</i>	<i>Classica et Medievalia</i>
<i>CQ</i>	<i>Classical Quarterly</i>
<i>CP</i>	<i>Classical Philology</i>
<i>CR</i>	<i>Classical Review</i>
<i>CW</i>	<i>Classical World</i>
<i>G&R</i>	<i>Greece and Rome</i>
<i>HSCP</i>	<i>Harvard Studies in Classical Philology</i>
<i>IEEE trans vis & comp graph</i>	<i>IEEE Transactions on Visualization & Computer Graphics</i>
<i>InfoVis</i>	<i>Information Visualization</i>
<i>JHS</i>	<i>Journal of Hellenic Studies</i>
<i>JMA</i>	<i>Journal of Mediterranean Archaeology</i>
<i>JRA</i>	<i>Journal of Roman Archaeology</i>
<i>Lit & Ling Comp</i>	<i>Literary & Linguistic Computing</i>
<i>TAPA</i>	<i>Transactions of the American Philological Association</i>
<i>Trans Inst Brit Geogr</i>	<i>Transactions of the Institute of British Geographers</i>
<i>ZPE</i>	<i>Zeitschrift für Papyrologie und Epigraphik</i>

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