Real and Theoretical Boundaries:
Human Geography in Herodotus

by

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Abstract

Herodotus' interest in the geography of the world was governed by his fascination with humanity. To his mind humans and their environment were interrelated. In an era when the majority of geographical writing did not focus solely upon the human world, but set this world into a universal context, Herodotus studied only the inhabited world, the *oikoumene*. Herodotus saw the world as divided into loosely-defined zones of inhabitation. At the heart of the world lay Greece, a region where owing to climate and environment the people were the bravest. Greece provided the standard of normality. The further one ventured from this region the more bizarre the inhabitants; their characteristics were determined by the region they inhabited. At the furthest reaches of the *oikoumene* the lands were weird and wonderful, their inhabitants correspondingly peculiar and almost unhuman. Beyond these regions lay the *eremoi* territories - uninhabitable regions which thus provided boundaries to the world and to investigation. Once outside the inhabited world certainty was impossible so all knowledge must be based to a greater or lesser degree on speculation. Herodotus, who placed importance on investigation rather, did not discuss any region outside the realm of potential investigation. Nonetheless, although Herodotus placed importance upon the idea of investigation, he did not adhere strictly to the principle of empiricism, but was influenced by the philosophical beliefs of his day. Like the majority of intellectuals of his day he believed in the idea of limit, demonstrating that all ethnographically - determined regions were separated from one another by natural boundaries which could not be transgressed without repercussion. The theoretical notions of balance, reciprocity, symmetry and limit pervade his geographical thought and provide the means with which he connected humans and their environment.

This thesis begins with a survey of the major trends in Herodotean scholarship over the last century. While not specifically geographically oriented this scholarship has provided much background material for the study of Herodotean geography.

The thesis continues with a study of the geographical ideas extant at the time of Herodotus. Although Herodotus used the empirical information which was filtering into Greek geographical writings, he derided the majority of his predecessors' ideas because they seemed to him speculative, founded either upon theory or myth.

Chapter Three is a discussion of the outer boundaries of the world as described by Herodotus who had rejected the traditional theoretical idea of Ocean as unfounded. The *eremoi* regions at the edges of the *oikoumene* formed these boundaries. The idea of zones of inhabitation is also important in this chapter, since the *eremoi* were bordered by the dehumanising *eschatai* regions. Although the existence of these *eremoi* regions was supported by investigative knowledge, in describing their role as limits Herodotus also resorted to the more theoretical ideas of symmetry and balance.

Chapter Four is a study of the importance of natural boundaries in the *Histories*. Humans who tried to cross them in an act of aggression were hubristically attempting to exert their authority over nature and consequently suffered the penalties ordained by natural law. The limits were discernible by investigation, but the moral implications for transgressing them were the product of theory not investigation.

An examination of Herodotus' perception of the relationship between race and environment follows. Contrary to the popular ethnographic theory of a polarity between Greeks and barbarians, Herodotus adopted a theory of environmental determinism which accounted for the racial variety which he perceived in barbarian races.

The conclusion shows how these disparate aspects of Herodotus' geographical thought were related to one another, particularly by his belief in balance and reciprocity. It further demonstrates how Herodotus saw that the consequences of the violation of natural boundaries provided a lesson to the aggressive Athenians and Spartans of his own time that conquest brought inevitable repercussions for the aggressor.

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List of Abbreviations

AC = *Antiquité Classique*

AHR = *American Historical Review*

AJP = *American Journal of Philology*

APA = *American Philological Association*

BAR = *British Archaeological Reports*

CJ = *Classical Journal*

CP = *Classical Philology*

CQ = *Classical Quarterly*

DK = H. Diels and W. Kranz, *Die Fragmente der Vorsokratiker*

F.Gr.Hist = Felix Jacoby, *Die Fragmente der Griechischen Historiker* (1923-)

G&R = *Greece and Rome* NS (1954/5-)

GRBS = *Greek, Roman and Byzantine Studies*

Hdt. = Herodotus

Hec. = Hecataeus

JHS = *Journal of Hellenic Studies*

JPh = *Journal of Philology* (1868-1920)

KRS = G.S. Kirk, J.E. Raven and M. Schoffield, *The Presocratic Philosophers*. 2nd ed., 1983

OCD^3 = *Oxford Classical Dictionary*. 3rd ed., 1996

PV = *Prometheus Bound*

RE = A.Pauly, G. Wissowa, and W.Kroll, *Real-Encyclopädie der klassischen Altertumswissenschaft* (1893-)

REG = *Revue des Études Grecques*

TAPA = *Transactions of the American Philological Association*

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Above all I must thank my supervisor, Dr. Gordon S. Shrimpton, who allowed me to do this topic and was unstinting with time, advice and input. I would also like to thank the other members of my committee, Dr. S.E. Scully, Dr. Patrick J. Grant and Dr. Brian W. Dippie, all of whom gave much assistance and challenging questions. I am particularly grateful to Dr. Scully who agreed to continue supervising even once he had moved to Dalhousie. I also owe thanks to Dr. Frances Pownall and to Dr. Lesley Cormack at the University of Alberta who first helped me to develop an interest in Herodotus' geographical thought. I must also thank the University of Victoria which funded me throughout this degree and enabled me thereby to give full attention to my academic work.

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Preface

In this thesis I study the geographic and ethnographic thought of the Greek historian Herodotus. Herodotus' work is recognised as a history by nearly all scholars who study it, but it does not take long for readers to see other interests beside the historical in his work. In particular, he was drawn to what we would call geography, not physical geography but human - the study of human races and nations in their various localities, and the effect these localities had on their ethnic character. Herodotean scholars may be divided into two main schools, separatists and unitarians. Separatists study the geographic and ethnographic portions of the work (predominantly found in the first four books) as if they were largely unrelated to the historical sections. The unitarians by contrast, consider that the historical and geographical components of Herodotus' book are closely interdependent. Herodotus studies foreign races and territories for the insights they offer into the human condition, and consequently into history thereby providing causal explanations in human terms for the events of the past.

Herodotean geography incorporates a belief in natural law which may seem to conflict with the historical interpretation of past events. In fact it complements his historical researches. Herodotus, for example, believed that environment dictates the nature of a people; he did not, however, think it determined the people's acts. Nature dictated that humans living in a harsh climate became hardy and courageous. As long as a race was content to remain in the area which had determined its racial characteristics, the balance in nature was maintained. Once a people made the decision to overstep natural boundaries, there were inevitable consequences. Humans were defying the natural laws. The race's decision, however, was its own, and although the repercussions were inevitable, the natural laws worked through human agency. As ordained by natural law, aggressors suffered such punishments as loss of life or territory or even total defeat. The initial act that attracted the punishment was a result of a human choice. In other words Herodotus saw an interplay between geography, ethnography, natural law and history. Natural law ordained that human characteristics were determined by specific environmental conditions. Geography might create a strong race which therefore had the potential to be aggressive, but the race itself chose to make the act of aggression. Generally speaking, a weak race formed under a comfortable climate will not choose aggression.

Because Herodotus believed in environmental determinism and recognised that there was a rich variety of geographic and climatic conditions in the world about which he wrote,

he differed in his views about the binary opposition between Greeks and barbarians from the majority of his contemporaries. He believed that Greece had a hard climate which had consequently produced a courageous people. At times this belief extends to a notion of Greek superiority, but this superiority is not absolute. Herodotus believed that Greeks could learn from other races. He shows therefore an ability to accept other races on their own terms. Since each race was subject to differing environmental influences, it must have its own distinct nature. Herodotus therefore examined each non-Greek race as an individual unit and not part of a general mass of barbarians. Natural law in the form of environmental determinism governed the creation of a race, but the races themselves then decided the course of their own history. When they overstepped their natural boundaries, however, the histories of different races became intertwined.

Herodotean geography also had structure. At the heart of the world, as he represents it, lay mainland Greece which was the pattern of normality. As one moved further out from this centre, the territories and their inhabitants became ever more bizarre. The regions nearest to Greece such as Persia and Egypt produced people who though alien, were still comprehensible to the Greeks. Herodotus still had a language with which he could communicate the main features of their cultures and even contrast the cultures one with another. Beyond these regions lay those which Herodotus called the *eschatiai*, the outermost lands. Both the lands and the people had an unreal quality. The regions were blessed with the finest products, but they were also cursed with the most extreme climates. The people who inhabited such regions as Ethiopia, and the region north of Scythia were to an extent dehumanised and at the same time superhuman. In such regions lived sorcerers and cannibals, one-eyed humans, goat people and were-wolves. They belonged to a different zone of the world. Beyond their territory lay the outermost zone which was formed by the endless wastelands at the outskirts of the world which formed a limit to human inhabitation and consequently a limit to the world of Herodotus' interest. It appears to be human nature to populate the regions beyond knowledge with marvels, mysteries and monsters.

Science fiction, for example, appeals to that same fear and wonder at the unknown. Since we have explored virtually every region of the globe, we have put our strange bizarre, powerful creatures into space. The principle is no different: they are still at the fringe areas of our knowledge.

Herodotus was not merely to have been trying to cultivate fear and wonder, however, but information. The further a report has to come - particularly an oral report - the more danger there is of it becoming distorted. Herodotus based much of his information about

various peoples upon investigation, but the reports which supplied his investigation were themselves distorted. He seems to have recognised the problem of this distortion, because he is far more careful about accrediting information about the further reaches of the world to sources.

Nonetheless, although Herodotus was interested in investigation and was aware of some of the problems inherent in investigation, he was also influenced by the more theoretical aspects of intellectual thought in his time. My thesis is in large part concerned with the influence of such uniquely ancient ideas on Herodotus' geographical thought. His explanations of human geography, of ethnography and of history are all bound up with theoretical, not empirical, ideas of reciprocity, symmetry, balance and limit. Although his explanations which delve into the realms of philosophy and natural law far exceed what is now thought of as legitimate for the study of history or geography, Herodotus did, however, set the pattern for future study in these areas. His desire to seek causal explanations for human events, and the recording of past events in a narrative which focuses on humans not gods, are still fundamental to the study of history. The emphasis which Herodotus placed on investigation is at the heart of modern scholarship on history and geography. What becomes evident from my study of Herodotean geographical thought is that Herodotus from the start to the finish of his book created an organic picture of world history, of human geography and of the human condition. There has been no second Herodotus. After him geography, history and ethnography took off along separate courses. No ancient writer after Herodotus made lasting contributions to both geographical and historical thought. Only recently has the relationship between geography and history begun to be explored once again with the development of academic interest in historical geography. Herodotus was an innovator, paving the way for such studies as history and human geography as are still being carried out today.

Chapter 1.
The State of the Question;
A Study of the Scholarship on Herodotus' Geographical Ideas, and the Role of Investigation and Fiction in his Geography

In the late fifth century BC, against the backdrop of the Peloponnesian war in which the Athenian empire and the Spartans were battling for control in Greece, Herodotus wrote a book, now known as *Histories*, in which he discussed the rise and defeat of another great empire, the Persian one. Its current title, however, belies the nature of the book. It was the first great piece of historical writing, but at the time at which Herodotus was writing, history, geography, ethnography and anthropology were not independent subjects.[1] True to the tradition of Ionian logographers Herodotus did not limit his ideas to a single subject or genre. His stated purpose was to proclaim his investigations: "so that the accomplishments arising from mankind should not become obliterated in time, and the great and unique deeds shown by both Greeks and Barbarians should not be unsung, nor those other things on account of which fault they fought with one another"(1.0).[2]

The wide ranging nature of this subject matter enabled him to preserve the memory of the past, particularly of the origins of the conflict between the Greeks and Asiatics, and also to include a wealth of information on, for example, ethnography and geography. While his subject matter and knowledge did limit to some extent the information which he recorded, he interpreted the details relevant or in some way related either to the Greco-Persian conflict or to the memory of the past liberally. He recorded tales of all the peoples and countries which were embroiled directly or indirectly in the Persian wars. For many of these races, he provided not only ethnographies, but also geographical vignettes of their territories.

To the modern reader, accustomed to printed, easily revised books, ruthless editors, and clearly pursued theses, Herodotus' work seems disorganised. He presented a barrage of information in a series of continual asides which appear to bear little relation either to each other or to the theme of Greco-Asiatic strife. Yet despite the apparent lack of organisation

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[1]Seth Benardete, *Herodotean Inquiries*, The Hague: Martinus Nijhoff, 1969, p.1.

[2]ὡς μήτε τὰ γενόμενα ἐξ ἀνθρώπων τῷ χρόνῳ ἐξίτηλα γένηται, μήτε ἔργα μεγάλα τε καὶ θωμαστά, τὰ μὲν Ἕλλησι, τὰ δὲ βαρβάροισι ἀποδεχθέντα, ἀκλεᾶ γένηται, τά τε ἄλλα καὶ δι' ἣν αἰτίην ἐπολέμησαν ἀλλήλοισι. All translations in this thesis are my own unless otherwise stated, and all the Greek is taken from the Oxford classical editions where possible.

there is a coherency of thought behind the tales.[3] Herodotus wove these eclectic reports together to provide not only historical information about the Persian wars, and about Greek perceptions of its causes, but also to show how the entire world and its inhabitants interacted and were interdependent, governed by universal natural laws. While Herodotus studied the geography of individual areas, his purpose in so doing was not merely to make the specific territories more comprehensible to the reader, but to relate them to the rest of the *oikoumene*. By making the study of geography one in which humans were the focus rather than gods and fantastic monsters, he moved archaic geography toward what it is today, a social science. After him, there was a split in geographical writing between those, typified by Ptolemy, who mostly studied physical geography, and those, like Strabo, whose primary interest was more closely connected to that of Herodotus in their focus on the social science of human geography.[4]

Although he was unavoidably influenced by the work of his predecessors -- poets, navigators, philosophers and logographers alike -- relying upon them both for actual reports and tales, and for styles of thinking, he rejected the majority of their specifically geographical thought, and instead described his own conception of world geography which differed greatly from the existing ones. His goal was to record knowledge based on investigation rather than on myth or theory. Nonetheless, ideas current in the philosophy of his time influenced the way in which he synthesised the results of his investigation to create a general geography of the world and its relation to humans. For instance, although he believed in investigation, when empirical knowledge failed him, he resorted to extrapolating from analogy. In particular, he used ideas of symmetry and dynamic balance, common in the philosophical thought of his era, to describe the make-up of the world and the relation of everything in it. For example, he believed he knew the course of the Danube, and by analogy he determined the course of the Nile, believing that it was the symmetrical opposite to that of the Danube (2.33). His work demonstrates an interest only in the *oikoumene*, the inhabited world, and his theories on the geography of this world were interconnected with his ideas about humans and their ethnography. Herodotus did not distinguish geography, ethnography and history as different subjects. Humans were influenced by their geographical environment, and the

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[3]There has been much dispute among Herodotean scholars about this coherency of thought, with such noted scholars as Jacoby and von Fritz arguing strongly against it. A series of literary studies of Herodotus' *Histories* have recently shown a definite structure to the work. See discussion below.

[4]See Christian van Paassen, *The Classical Tradition of Geography*. Groningen: J.B. Wolters, 1957, passim.

events of human history could not be separated from the environment in which they took place.

In ancient times his interests in geography and ethnography were largely overlooked in favour of his historical ideas. In the first century BC, Cicero dubbed Herodotus, "the father of History",[5] but even before he earned the title his right to it was in dispute; Herodotus' near contemporary Ctesias, himself a highly fallible historian of the Persian Wars, referred to Herodotus as a *logopoios* and teller of lies.[6] Much later in the only extant full-length, ancient critique, Plutarch wrote a vituperative essay accusing Herodotus of delighting in telling the hurtful tale, distorting the truth, and occasionally of outright lying, through deliberate malice.[7] To Plutarch, Herodotus was a *philobarbaros* (857A) who was manifestly unjust to the Greek city states.[8] Herodotus' universalist style of history and his interest in various ethnic communities evidently did not appeal to Plutarch. As Momigliano points out, "History was a form of encomium to Plutarch, and evidently Herodotus did not fit the pattern."[9] Plutarch was not alone among the ancient writers in making an untempered attack on Herodotus. While none of the other critiques are extant, records of their titles provide a clue to their content: *Against Herodotus; Herodotus' Thefts*; *On Herodotus' Lies; Against Herodotus.*[10] Criticism of Herodotus was so general that Josephus even went as far as to say that he was universally attacked.[11] Herodotus continued to receive accolades for his style, but for little else.[12] When he did gain praise it was largely for his historical work independent of his

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[5]Cicero, *De Leg.* 1.5.

[6]Ctesias, *F.Gr.Hist.* 3C, 688, F8, line 7.

[7]Plutarch, *The Malice of Herodotus.*

[8]Plutarch's native Boeotia certainly does not fair particularly well in Herodotus' account of the Persian wars. Plutarch, however, does not restrict his diatribe against Herodotus to regions which fare conspicuously less well at the earlier historian's hands, but endeavours to point out all the ways in which Herodotus supposedly maligns Sparta (Plutarch. "The Malice of Herodotus," *Moralia* 859C- 861B) and even Athens (861B- 863D).

[9]Arnaldo Momigliano, "The Place of Herodotus in the History of Greek Historiography," *History* 43 (1958) p.6.

[10]In order, these are said to have been written by Manetho, Valerius Pollio, Aelius Harpacrotion and Libanius. See J.A.S. Evans, "Father of History or Father of Lies: the Reputation of Herodotus," *CJ* 64 (1968-69) p.14.

[11]Josephus, *Contra Apion.* 1.3.

[12]E.g. Hermogenes, *On Style.* 2.12, Dionysius of Halicarnassus, *Letter to Pompeius* 3, *Demosthenes* 41, *On Literary Composition* 10, *Thucydides* 5 and Lucian, *Herodotus or Aëtion* 1.

geographical and ethnographical thought,[13] yet he was as much an innovator in these subjects as he was in the area of history.

Nonetheless, geographical ideas and tales which had gained popularity through his work entered into collective European consciousness. They joined the ranks of common lore, and gained credence even during the Middle Ages when Herodotean studies themselves received little attention. In the seventh century Isidore of Seville, for instance, proclaimed about Scythia that "several of the districts are rich, but some are uninhabited, for while they are rich in gold and precious stones, they are rarely approached by man owing to the ferocity of the griffins".[14] Such a report comes virtually unaltered from Herodotus.[15] A further seven hundred years later, his geographical tales were still receiving uncritical credence. Mandeville, whose fraudulent travelogue won wide-spread belief, provided a report of gold-guarding ants in the east that was a close echo of Herodotus' own tales.[16]

Herodotus' marvellous tales were not the only aspects of his geographical work to receive acclaim, however. In the fifteenth century there was a revival of interest in the classical world in general from which Herodotean scholarship was not immune. A score of new translations of his book were made.[17] With the growing interest in the classical world several theories propounded by ancient scholars were revived. By the sixteenth century the theory of environmental determinism which Herodotus had been one of the earliest writers to formulate[18] had once again found active advocates,[19] and has, indeed, continued to find exponents even in the twentieth century.[20] But though Herodotus' geographical theories and

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[13]E.g. Cicero *De. Leg.* 1.5.

[14]Isidore of Seville, *Etymologiae*, 14.3.22; cited in George H. T. Kimble, *Geography in the Middle Ages*. New York: Russel and Russel, 1938, pp.25-26.

[15]See Hdt., 4.13.

[16]Compare *The Travels of Sir John Mandeville*, 33, first circulated c.1356. See *The Travels of Sir John Mandeville*, trans. with introduction by C.W.R.D. Mosely, Middlesex: Penguin Books, 1983, p.182, and Hdt., 3.102-108.

[17]Momigliano, "Herodotus in the History of Historiography," (above, n. 8) pp.10-13.

[18]He was not alone among the ancient scholars in believing in it, however. Others such as Hippocrates, Polybius and Strabo also adopted this theory. See Miroslav Marsik, *Natural Environment and Society in the Theory of Geographical Determinism*. Prague: Universita Karlova, 1970, p.9.

[19]Marsik, Chapter 1.

[20]See e.g. Griffith Taylor, *Environment and Nation, Geographical Factors in the Cultural and Political History of Europe*. Toronto: University of Toronto Press, 1936; also Harold M. Wesso, "The Colonization of Geographic Thought, the South African Experience," pp.326-

tales helped to shape others' conceptions of the world for millennia after his death, it was usually through indirect influence; little critical work was carried out on his own geography.

Not until the early nineteenth century did Herodotus' geographical thought begin to receive critical attention. In 1830 Major James Rennell published his two-volume geography of Herodotus, in which he made a careful study of the geographical details in Herodotus, comparing them to the geographical ideas of other historians and to the geographical realities of the world as it was now known. He also examined how they acted as a complement to Herodotus' historical narrative.[21] For instance, he studied how Darius' bridge over the Bosphorus and Xerxes' over the Hellespont must have led them to points in Thrace that were only about 75 miles apart. The former's route was much the safer, but through "vain-glory" Xerxes chose to bridge the Hellespont.[22] Rennell provided useful maps and much interesting information about the detailed state of geographical knowledge at the time of Herodotus, but his book was so full of moral overtones that many of his less specifically geographical conclusions must be questioned. His work, however, provided an invaluable starting point for the late nineteenth century historian of geography, Bunbury.

Bunbury had an encyclopaedic knowledge of ancient geography in general, and for specific information on Herodotus' geographical knowledge and tales he is unsurpassed. He was the cornerstone of a trend in Herodotean scholarship that did not look for the theories behind Herodotus' geography, but rather studied in tedious detail the facts presented in it. He described the world as Herodotus viewed it and how this compared with reality.[23] Bunbury

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328 and David T. Murphy, "Space, Race and Geopolitical Necessity: Geopolitical Rhetoric in German Colonial Revanchism," pp.176-180 in *Geography and Empire*. Neil Smith and Anne Godlewska eds., Oxford: Blackwell, 1994. As these discussions demonstrate, the idea of environmental determinism had evolved greatly since the time of Herodotus, assuming a more apparently scientific guise, and allowing for greater subtlety of argument. The essential idea that environment helps to determine the character of a race or ethnic group, however, was still exactly the same as Herodotus proposed. Interestingly where Herodotus believed that environmental determinism was one of the reasons why no country should develop an empire to rule over other races, later geographers such as the Nazi theorists used the same theory to advocate imperial rule. See Murphy p.176.

[21]James Rennell Esq., *The Geographical System of Herodotus Examined and Explained by a Comparison with those of Other Ancient Authors and with Modern Geography*. 2 Vols., London: C.J.G. & F. Rivington, 1830.

[22]Rennell, Vol. 1, pp.150-153.

[23]E.H. Bunbury, *A History of Ancient Geography among the Greeks and Romans from the Earliest Ages till the Fall of the Roman Empire*. London: John Murray, 1879. For others who adopted a similar technique see e.g. H.F. Tozer, *A History of Ancient Geography*. 2nd ed., M. Cary additional notes, New York: Biblo and Tannen, 1964, and J. Oliver Thomson, *History*

composed a history of all ancient geography and so was also useful in setting Herodotus into a geographical tradition, although his chapter on Hecataeus must be read warily since he sometimes drew unwarranted conclusions from too little evidence.[24] He was not the first or the last to adopt a fact-based approach to the study of Herodotus' geography, but he was the best. A further group of writers also employed a fact-based approach in compiling all the cartographical material presented in the literature, using it to propose theories about ancient Greek maps and map-making. The most pertinent of these works for scholars interested in Herodotus' geography is Myres' interesting if highly speculative study of the maps used by Herodotus.[25] In this study Myres, drawing on all the cartographical facts presented by Herodotus, proposed that Herodotus had worked with two maps, one Ionian and one Persian. These maps were drawn from different perspectives -- the Ionian one, for instance, was based on a theory of symmetry which saw all the earth equally arranged around an equator. From the information provided in Herodotus Myres attempted to reconstruct these two maps. Heidel, in one of his best works, *The Frame of the Ancient Greek Maps*, also used literary references to determine the state and development of ancient Greek geographical knowledge, although he drew upon a much wider body of source material than Myres.[26]

To a large extent, Myres and Bunbury and the others separated Herodotus' geographical thought from the rest of his histories, not necessarily because they thought the two were entirely independent of one another (indeed, Myres' later book on Herodotus proved he did not[27]) but because they chose to focus only on the specifics of the geography.

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of Ancient Geography. New York: Biblo and Tannen, 1965, first published 1948. Thomson applies a strictly chronological rather than an author-based method of presenting his information, so that the details are more concerned with the general state of geographical knowledge in a given period than with the knowledge of any particular author, but the essential technique of accumulating a mass of information in painstaking detail is similar to that of Bunbury.

[24]For example, it should be virtually impossible to map the world as Hecataeus' portrayed it, since all our evidence for Hecataeus is entirely fragmentary, the majority of it consisting of little more than single line references to places which he recorded. Bunbury, however, provided a detailed map of Hecataeus world with which he later compared Herodotus' world view (p.149).

[25]John L. Myres, "An Attempt to Reconstruct the Maps Used by Herodotus," *Geographical Journal* 8 (1896) pp. 606-631.

[26]William Arthur Heidel, *The Frame of the Ancient Greek Maps with a Discussion of the Discovery of the Sphericity of the Earth*. History of Ideas in Ancient Greece, The American Geographical Society, New York: Arno Press, 1976, first published 1937.

[27]John L. Myres, *Herodotus Father of History*. Oxford: Clarendon Press, 1966, first published 1953.

Shortly after they wrote, however, Jacoby proffered a thesis which stated that books one to four, in which are found the majority of the ethnographical and geographical detail, indicated an early stage of Herodotus' writing which differed little in content from earlier prose-writers, while the largely historical content of the later books was written at a separate stage in Herodotus' life and signified an evolution in Herodotus' thought and a novel subject matter.[28] Athenian influence and, in particular, Periclean influence, changed the course of Herodotus' work, and half-way through writing, he became a true historian.[29] For a long time after Jacoby's work the majority of Herodotean scholarship centred on his argument. As a result, studies involving Herodotus' geography and thought were usually, although not invariably, part of a thesis either supporting or rejecting Jacoby's theory.[30]

The evolutionary theory provided impetus for looking at earlier work to see whether there was indeed a geographical and ethnographical tradition of writing in pre-Herodotean

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[28]Felix Jacoby, "Herodotus," *RE* supp. 2 (1913) cols. 205-520 passim, see especially colls.330-331. Jacoby was not the first to make the distinction between Herodotus the ethnographer and Herodotus the historian, but he gave the argument "a new lease of life" (Hartog. xxi). For earlier people to make such an argument see the discussion in François Hartog's preface to *The Mirror of Herodotus, The Representation of the Other in the Writing of History*. Janet Lloyd, trans., Berkeley and Los Angeles: University of California Press, 1988.

[29]Not all who followed Jacoby's lead in arguing for a separatist approach (i.e. that the Histories were written in two discrete parts), accepted his view that Athenian influence was the turning point. Indeed, the relationship between Herodotus and Athens has provoked a mass of scholarship of its own, but their relationship has relatively little to do with his geographical and ethnographical thought, and so need not concern us here. For some surveys of this scholarship see P. MacKendrick, "Herodotus: The Making of a World Historian," *The Classical Weekly* 47, # 10 (March 22, 1954) pp.145-152; P. MacKendrick, "Herodotus, 1954 - 1963," *The Classical World* 56, # 9 (June 1963) pp.269 -273; and P. MacKendrick, "Herodotus, 1963 - 1969," *The Classical World* 63, # 2 (1969) pp.37 - 44. Others such as Drews still adopted the separatist theory, but saw the Persian Wars rather than the Athenian influence as the deciding factor. Robert Drews, *The Greek Accounts of Eastern History*, Washington DC: Center for Hellenic Studies, 1973.

[30]Kurt von Fritz who stressed the link between geography and historiography and thus provided insight into Herodotus' geographical ideas, was one of the strongest proponents of Jacoby's theory. See von Fritz, "Herodotus and the Growth of Greek Historiography," *TAPA* 67 (1936) pp. 315-340. The unitary theory has recently received a large number of advocates (see below), but one of the earliest and most vehement of these, writing at a time when Jacoby's theory was still very much the popular one, was Max Pohlenz. He studied the ethnographic and geographic logoi arguing that they were intended from the start to flesh out the background to his history (pp.70-71). For Pohlenz, Herodotus was never an ethnographer or geographer, he was the father of history (p.221). Max Pohlenz, *Herodot, Der Erste Geschichtschreiber des Abendlandes*. Stuttgart: B.G. Teubner, 1961.

Greece, and to study in general the origins of Greek historical writing.[31] Jacoby himself wrote extensively on some of the early logographers - most notably on Hecataeus and Hellanicus,[32] and in the next forty years invaluable additions to the study of early prose writing were made. The most important of these was Pearson's book on the Early Ionian Historians, in which he attempted to set Herodotus into a historiographical context.[33] Pearson was not principally concerned with geographical thought, but since some of the early prose writers wrote extensively on geographical subjects, his work provided a worthy basis for studying not just the historiographical but also the geographical ideas current at the time of Herodotus. Indeed, for some of these authors, ethnographical, geographical and historical subjects were as inextricably intertwined as they were for Herodotus. Pearson pieced together the fragments of these Early Ionian logographers in an attempt to glean as much information as possible about the works of the four early historians for whom a significant number of fragments survive, namely Hecataeaus of Miletus, Charon of Lampsacus, Xanthus the Lydian and Hellanicus of Lesbos. His work on Hecataeus in particular is invaluable for anyone attempting a study of the intellectual context for Herodotus' geographical and ethnographical work. If there is a problem with the book, it is that Pearson erred always on the side of caution so that he made few definite statements about these early writers. As a result, however, the book has not dated greatly and has not been superseded; others such as van Paassen have provided more speculative works on Hecataeus (for example) but these approaches are counterbalanced by that of Pearson which is always strictly grounded in the fragments.

The evolutionary theory did not simply provoke a study of the literary background to Herodotus, however. It also spawned a school of writing which "is directed not at Herodotus' development as a historian (to say nothing about his indebtedness to earlier writers,) but focuses on the *Histories* as they are".[34] Some of these authors, such as Pohlenz and Benardete, were providing a strictly unitarian thesis, believing "that one Grand Design was present to his mind from the beginning";[35] others, such as Fornara, modified the separatist

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[31]Jacoby's work did not initiate the study of Herodotean sources, but it certainly influenced people to direct further study to such a subject.

[32]Jacoby, "Hellanikos," *RE* 7.2 (1912) cols. 104-151 and "Hekataios von Milet," *RE* 7.2 (1912) cols. 2667-2750.

[33]Lionel Pearson, *Early Ionian Historians*. Oxford: Clarendon Press, 1939.

[34]Drews, (above, n. 29) p.39.

[35]P. MacKendrick, "Herodotus: The Making of a World Historian," (above, n. 29) p.148.

argument, claiming that the work evolved, but was subsequently restructured to provide it with a superficial unity.[36] To describe those who focused on the *Histories* themselves as belonging to a single school might falsely imply that they all adopted a similar approach in refuting the separatists. This was not the case. Myres, for instance, studied Herodotus' right to be called the Father of History, drawing on evidence from the language, structure and content of the text.[37] In the process he provided some useful studies on ethnography and word use for anyone interested in studying Herodotus' thought. Immerwahr, who provided one of the most novel and influential recent studies of the *Histories*, also supported a unitarian thesis (p.10), but focused only on the literary form of the text.[38] He looked at the internal structure of the *Histories* and of the various logoi, and at various motifs which ran throughout the book, arguing that the *Histories* demonstrated a consistency of thought. Works like that of Immerwahr did much to divert attention from the old debate of Herodotus' evolution and revived attention on the *Histories* themselves, their literary nature, and the ideas contained therein. Immerwahr's conclusion on history and the order of nature, and his discussion of the motif of rivers and of natural limit are of fundamental importance to anyone studying how Herodotus viewed the relation of humans to their natural, geographic environment.

Although the debate between the unitarians and separatists is still current enough that anyone making a general survey of Herodotean scholarship must acknowledge it, it is no longer the principal focus of Herodotean scholarship. On the whole, those who advocate a strictly separatist approach have been disproved; there is too much consistency in thought, motif and structure for the book to have been written with two completely different genres in mind.[39] Events described at the outset of the *Histories* provide paradigms for descriptions of events later in the text. As Gould and, to an extent, Immerwahr have argued, the structures of symmetry and balance, of reciprocity and requital operate "across geographical space and

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[36]Charles Fornara, *Herodotus an Interpretative Essay*. Oxford, Clarendon Press, 1971.

[37]J.L. Myres, *Herodotus*. (above, n. 27).

[38]Henry R. Immerwahr, *Form and Thought in Herodotus*. Philological Monographs 23, APA, Cleveland: Press of Western Reserve University, 1966.

[39]In addition to the work of Pohlenz, Myres, Bernadette, Fornara and Immerwahr (above) see Henry Wood, *The Histories of Herodotus: An Analysis of the Formal Structure*. Mouton: The Hague Press, 1972, Alan B. Lloyd, *Herodotus Book 2*, Vols. 1-3, Leiden: E.J. Brill, 1975-1988, and Donald Lateiner, *The Historical Method of Herodotus*. Toronto: University of Toronto Press, 1989.

time, and [are Herodotus'] way of structuring the past".[40] Such themes, along with the preoccupation with boundary and limit, link together the geographical, ethnographical and historical thought of Herodotus' book into a coherent whole.

No sooner did controversy over the precise make-up of the book die down than a new debate sprang up. The tradition that Herodotus was a liar dated, as we have seen, to ancient times. Much of the *Histories* contains accurate information, but equally much is pure fable. The contrast between the reliable and the false has provided continuous problems for people who have tried to slot Herodotus into any single category of writing. While people clung to Jacoby's theory of a division between the two portions of the book it was possible to solve this problem of whether Herodotus was a liar or a factual reporter. Herodotus, in the latter portions of his book, was a historian who told the truth, while in his earlier writing, he was a logographer who was more interested in telling good stories than in reporting truthfully, and therefore was perfectly capable of fabricating lies.[41] Once this division disappeared the old problem of truth and falsehood came to the forefront once again. Indeed, Herodotus' truthfulness now received its most crushing challenge. In 1971 Detlev Fehling wrote *Herodotus and his Sources* in which he claimed that Herodotus had fabricated all his source citations in order to give greater credence to some of his more improbable reports.[42] Fehling undertook a laborious if not entirely systematic study of Herodotus' source citations to bring each one into doubt. He concluded that "the individual source-fictions are part of a grand-overall fiction representing everything reported by Herodotus as based on word-of-mouth information collected on his travels".[43] Indeed, he went yet further to claim that the very idea of *historia* or investigation which Herodotus claimed to be a founding tenet of his book, was itself affected. Herodotus' investigations could only be studied from a literary point of view.[44]

Stephanie West, studying Herodotus' epigraphic citations, found them so unreliable that, to her mind, they provided further support for Fehling's thesis. Similarly Armayor who examined various supposedly eyewitness narratives in the *Histories* found that they too were

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[40]Simon Hornblower, *Greek Historiography*. Oxford: Clarendon Press, 1994, p.20. See John Gould, *Herodotus*. London: Weidenfeld and Nicolson, 1989, e.g. p.94.

[41]See Hartog p.xxii (above, n. 28).

[42]Detlev Fehling, *Herodotus and his "Sources," Citation, Invention and Narrative Art*. J.G. Howie trans., Classical and Medieval Texts, Papers and Monographs, Leeds: Francis Cairns, 1989.

[43]Fehling, p.247.

[44]*Ibid.*

fallacious, not based on personal autopsy, but more probably on tales found in Hecataeus.[45] He decided, for example, that Herodotus never visited the Black Sea area, but rather drew all his ideas about it from Ionian tradition. Like West and Fehling, Armayor decided that such findings called into question Herodotus' entire historical authority. If the "liar school of Herodotus" were proved right, no creditable study of the *Histories* could regard it as anything other than a fictional text. Herodotus the geographer, like Herodotus the historian, would therefore cease to exist.

Fehling's thesis has, however, fallen into disrepute. Pritchett, studying external evidence, systematically refuted each of Fehling's citations, and then proceeded to tackle both West's epigraphical charges, and Armayor's disbelief in Herodotus' autopsy.[46] Some of Pritchett's arguments seem to go beyond the realm of the credible, such as when he argues that the flying snake skeletons which Herodotus saw (2.75) were those of locusts.[47] It is a possible explanation, but not a probable one.[48] It is more advisable to confess with Lloyd that "Herodotus clearly saw something which could be taken for snake skeletons but what it was remains a complete mystery."[49] Nonetheless, Pritchett provides such a wealth of argument that Fehling's conclusions must indeed be called into question. Pritchett's work, however, suffered from one of the same flaws as Fehling. As Dewald has pointed out, "Fehling's

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[45]Stephanie West, *"Herodotus' Epigraphical Interests,"* *CQ* 35 (1985) pp.278-305. West also studied "Herodotus' Portrait of Hecataeus," *JHS* (1991) pp.144-160 in which she questions further Herodotus' reliability, but in this article she takes a more temperate approach than in her earlier one. Similarly O. Kimball Armayor's conclusions softened somewhat over time. In his article "Did Herodotus ever go to the Black Sea?" *Harvard Studies in Classical Philology* 82 (1978) pp.45-62, he claims that if Herodotus did not go to the Black Sea, which Armayor concludes he did not, his entire "historical authority was at stake" and states that this lack of autopsy "calls to question all personal experience and puts the question what kind of father of History was he (45)." In his later book *Herodotus' Autopsy of the Fayoum: Lake Moeris and the Labyrinth of Egypt*. Amsterdam: J.C. Gieben, 1985, he still comes to the conclusion that Herodotus had not seen the Fayoum, but makes less sweeping assertions about what this lack of autopsy means for the *Histories*.

[46]W. Kendrick Pritchett, *The Liar School of Herodotos*, Amsterdam: J.C. Gieben, 1993.

[47]Pritchett, p.27-29.

[48]Pritchett's explanation is not, however, as wholly bizarre as it first seems. Herodotus described these snakes as invading Egypt through a pass from Arabia. Alan Lloyd has located a pass "in the stretch parallel to the S.E. end of L. Menzala running 10-15km W. of the Suez canal" which accords well with Herodotus' description. Alan B. Lloyd, *Herodotus Book II.* Vol. 2, (above, n. 39) p.327. Pritchett provides evidence that locusts do invade this area from Arabia and are eaten by ibises as Herodotus stated.

[49]Alan B. Lloyd, *Herodotus Book II.* Vol. 2, p.327. Lloyd does offer some possible explanations, most of which are more probable than Pritchett's (pp.326-327).

testing of Herodotus' reports by the standards of twentieth century accuracy may not be the proper way to understand Herodotus' attempt."[50] Pritchett's approach involves similar problems. The liar theory was seriously damaged by Pritchett's attack, but received a death blow from Shrimpton and Gillis' systematic study of the source citations, in which the authors, looking at history more from the point of view of the ancient Greeks, demonstrate that Herodotus cites sources not when he believes his audience would be incredulous, as Fehling argues, but when Herodotus himself was having difficulty believing the reports.[51]

While the Fehling theory was still near the forefront of Herodotean scholarship, however, it provoked one of the most interesting books written on Herodotus, at least in the latter half of this century. Hartog, in his *Mirror of Herodotus*, attempted to mediate between the two schools, examining only the text and ignoring external evidence. He was influenced both by the French school of structuralist authors for whom "the language itself became the central nexus that orders (one can also say writes) the world",[52] and by writers such as Henry Wood and Immerwahr who studied the structure of the *Histories* as literature to understand the format of the book and the thought contained in it. Hartog saw Herodotus' *Histories* as a mirror working on various levels. On the level of the text it provides a mirror in which, because of the ambiguity of language, the world which is reflected back to the reader can be interpreted in numerous ways by the different readers. All readers seek to find their "own identities and activities" in the text [53] On a second level, through a language of otherness, it provided a mirror to the audience, showing to the Greeks who they themselves were. It did so, not by portraying the Greeks themselves, but by showing the barbarians, the antithesis of the Greeks. By portraying the barbarian, Herodotus provided a mirror in which the Greeks could look and see a reflection, a polar opposite of themselves. On a third level it mirrored back the world, not as it really was, but as Herodotus perceived it . A world which consisted

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[50]C. Dewald and J. Marincola, "A Selective Introduction to Herodotean Studies," *Arethusa* 20, 1&2 (1987) p.34.

[51]Gordon S. Shrimpton and K.M. Gillis, "Appendix on Herodotus Source Citations," pp.229-265 in Gordon S. Shrimpton, *History and Memory in Ancient Greece, with an Appendix on Herodotus Source Citations by G.S. Shrimpton and K.M. Gillis.* Montreal and Kingston: McGill-Queen's University Press, 1997.

[52]C. Dewald and J. Marincola, "A Selective Introduction to Herodotean Studies," (above, n. 50) p.23.

[53]Paul Cartledge, *The Greeks a Portrait of Self and Others.* Oxford: Oxford University Press, 1993, pp.55-56.

of the *oikoumene* within which all space was surveyed and divided.[54] Hartog's book is fascinating, at times brilliant. His study of Herodotus the surveyor and his examination of the symmetrical opposition between Egypt and Scythia is required reading for anyone interested in Herodotus' ideas about people and the arrangement of space. At times, however, Hartog seems too swayed by the idea of the *Histories* as literature, and loses sight of the fact that there were presumably real people, or at least some notion of real people, behind Herodotus' portrayal.

Similarly, Romm in his book *The Edges of the Earth in Ancient Thought,* in which he studies the literary tradition concerning the boundaries of the world, sometimes also becomes so caught up in the notion of a theoretical construction of geographic limits that he loses sight of the idea that although these limits may have been constructed, the ancients also believed in them. His study of how linguistic, cosmologic, cartographic and mythic boundaries were imposed on the world by the ancients in an attempt to carve "an intelligible chunk out of the surrounding void"[55] is, however, important for understanding how novel was Herodotus' rejection of the idea of Ocean.

While approaches to Herodotean scholarship have altered drastically over the last century from the factual outlook of Bunbury to the predominantly literary approach of Romm and Hartog, all these trends contributed greatly to understanding Herodotus' geographical and ethnographical outlook. In one sense the strictly separatist approach hindered any study of Herodotus' thought by making impossible an over-all study of the themes which run throughout the book. It would not be possible for one, like von Fritz, who clung to the theory of an evolution from ethnographer and geographer to historian, and claimed that the *Histories* were written in two distinct parts, the first four books by Herodotus the logographer, and the latter five by Herodotus the historian to study how the themes of symmetry and balance, of limit and defiance show a consistency of thought throughout the book. It took the work of those seeking to prove the homogeneity of the book to bring to light these themes. Nonetheless, scholars like Jacoby made an important contribution to the analysis of Herodotus' world view. To study Herodotus' geographical thought, it is necessary not only to look at his own thought, but also to see how he was influenced by earlier and contemporary ideas and yet rejected many of the more specifically geographical of these. Similarly, although Fehling and his school were too extreme, their approach, when coupled

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[54] See also the summary of *The Mirror of Herodotus* in Cartledge, pp.55-56.

[55] James S. Romm, *Edges of the Earth: Geography, Exploration, and Fiction.* Princeton: Princeton University Press, 1992, p. 32.

with some techniques of the unitarians, has furthered the interest in the *Histories* as literature. Like those of the separatists, their theories have had advantages as well as disadvantages. If taken to extremes, their technique can make it difficult to make any assertions about the world or the ideas of Herodotus. The literary approach has, however, brought to light many ways in which the ancients constructed an idea of the world around them. Herodotus' world was certainly constructed by means of ideas of symmetry and reciprocity, boundary and limit, but there is a danger in restricting Herodotus' world and the people therein to little more than a construct. Herodotus did not set out to be a writer of fiction.

First and foremost, Herodotus was an investigator who relied on reports, on hearsay and on autopsy for his tales, but none of these was infallible. "The eyes of an ancient historian were not those of an empiricist who experiences, tests and verifies, but those of a witness who sees and remembers."[56] As a result, even where Herodotus was trying to base his tales on investigation, distortions and falsehoods crept in. His task was to preserve the public memory of various facts, but he did not always agree with the facts he recorded. Nonetheless, while Herodotus endeavoured to be an investigator, and certainly set aside most of the existing geographical theories which were founded only on mythical belief, and were without proof,[57] he himself did not always live up to his goals of using investigative techniques to support all his descriptions of world geography. The themes of reciprocity, symmetry and limit which unite the book, pervade much of his thought, his geographical and ethnographical ideas being no exception. While the ideas of limit, for example, may have had physical, geographical manifestations in the rivers and deserts of the world, the theories of the repercussions for violation of these limits were based not on investigation, but on belief.[58] Herodotus founded his theories upon investigation, but, as his geographical and ethnographical ideas indicate, he was also capable of distorting the results of his investigation to accord with the theories which he had adopted. Ultimately, it was the single theoretical idea of a world in symmetry and balance which connected all his diverse ideas about the boundaries and limits in the world, and of people and environment into one coherent idea of world geography.

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[56]Shrimpton, *History and Memory*. (above, n. 51) p.52.

[57]See chapter 2.

[58]See chapters 3 and 4.

Chapter 2.
Theoria or *Historia*?
Herodotus and the Greek Geographical Tradition of the Fifth Century BC

Although there is no indication that any Greek wrote a book called *Geography* until Eratosthenes at the end of the third century BC,[1] Greek literature with a geographical content dates back as far as Homer himself. As a result, when Herodotus wrote his *Histories*,[2] he found himself the inheritor of a long tradition of geographical concepts. Many of these ideas, however, such as the concept of Ocean, had little grounding in fact, owing much more to mythical tales than to investigation, yet they had become accepted first by the poets and later by the philosophers. By the mid fifth century BC, the approximate period in which Herodotus wrote his *Histories*, aspects of investigative knowledge had filtered into the general geographical record, but as the *Prometheus Bound* illustrates, these did not necessarily alter the Greeks' perception of the world. On the popular level, the more marvellous and fable-like tales which investigation brought to light seem merely to have been grafted onto the existing geographical ideas based largely on unfounded theory and sheer mythology, while the general view of the world remained unchanged.

Herodotus, however, called into question much existing geographical belief. This chapter is an examination of how Herodotus' geographical thought differed greatly from that of his contemporaries, largely because he placed the emphasis on investigation rather than on theory. He used the work of other Greek geographical writers as source material, but he queried much of their information that seemed to have a theoretical rather than an empirical

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[1]See Christian van Paassen, *The Classical Tradition of Geography*. Groningen: J.B. Wolters, 1957, p.34, and James S. Romm, *Edges of the Earth in Ancient Thought, Geography, Exploration and Fiction*. Princeton: Princeton University Press, 1992, p.9. Also Strabo *Geography*. 2.1.

[2]Originally titleless, Herodotus' *Histories* received their current name by tradition from the Greek word *historia*, meaning investigation, with which he opened his book. Stewart Flory. *The Archaic Smile of Herodotus*. Detroit: Wayne State University Press, 1987, p.11. The current identification of history exclusively with the study of the past was quite unknown to Herodotus who was as interested in geography and ethnography as in the study and record of the past. Indeed, the desire to create an accurate representation of past events held little importance for Herodotus who was more concerned with recording the public memory of such events than with the facts themselves. See Gordon S. Shrimpton. *History and Memory in Ancient Greece, with an Appendix on Herodotus' Source Citations by G.S. Shrimpton and K.M. Gillis*. Montreal and Kingston: McGill-Queen's University Press, 1997, passim. In his geography, by contrast, while he still recorded ideas with which he disagreed, he was unequivocal in his opinion that these were incorrect. He was much more concerned with presenting, what was to his mind, a truly accurate image of the world.

basis. He himself relied upon unsubstantiated theory to synthesise the geographical information which he had obtained through investigation, but although he resorted to theory, investigation was important for him.[3] He realised that it was never possible to gain complete knowledge about the world because humans could not compile enough evidence about any given subject,[4] but he took his researches as far as he could. The results left him scornful of the majority of geographical concepts of his predecessors and contemporaries. He proclaims, in uncharacteristically emphatic style:

> I laugh when I see the many people who have already depicted the circumference of the earth and see that none of them interpret (the world) intelligently. They depict Ocean flowing around the earth, as if it were a circle drawn by a pair of compasses, and they make Asia equal to Europe (4.36).[5]

The emphasis in this remark seems, in part, to be the artificial characteristics of the world as these predecessors portrayed it -- its perfect circularity, the absolute equality of Asia and Europe[6] -- but it also draws attention to the concept of Ocean, an idea which Herodotus believed was particularly ill-founded (2.23, 4.8).

Herodotus himself attributed the idea of Ocean surrounding the world to Homer, but it almost certainly had a much earlier origin. An extant Babylonian map of about 600 BC

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[3]In his investigations Herodotus placed greatest emphasis on his own eye-witness accounts, even claiming to have seen places and things which he almost certainly did not. See e.g. A.H. Sayce, "The Season and Extent of the Travels of Herodotus in Egypt," *JPh* 14 (1885) pp.257-286 and O. Kimball Armayor, *Herodotus' Autopsy of the Fayoum: Lake Moeris and the Labyrinth of Egypt*. Amsterdam: J.C. Gieben, 1985, but as Shrimpton says "Herodotus pays lip-service to the idea that on-the-spot observation is best whether or not he practised what he preached." Shrimpton, *History and Memory.*(above, n. 2) p.50. For Herodotus, however, investigation was not limited to eyewitness observation but also included hearsay and judgement. See Alan B. Lloyd, *Herodotus Book II*. Vol. 1, Leiden: E. J. Brill, 1975, pp.82-83. It is because of his use of judgement that he became susceptible to the use of theory to flesh out his discoveries made through reports and observations.

[4]Carolyn Dewald, "Practical Knowledge and the Historians' role in Herodotus and Thucydides," in *The Greek Historians, Literature and History, Papers presented to A. E. Raubitschek*. Stanford University, Saratoga, California: ANMA Libri and Co. Ltd., 1985, p.59.

[5]γελῶ δὲ ὁρῶν γῆς περιόδους γράψαντας πολλοὺς ἤδη καὶ οὐδένα νόον ἐχόντως ἐξηγησάμενον. οἳ Ὠκεανόν τε ῥέοντα γράφουσι πέριξ τὴν γῆν, ἐοῦσαν κυκλοτερέα ὡς ἀπὸ τόρνου, καὶ τὴν Ἀσίην τῇ Εὐρώπῃ ποιεύντων ἴσην.

[6]Christian Jacob, *Géographie et Ethnographie en Grèce Ancienne*. Cursus, Paris: Armand Colin, 1991, p.38.

shows a world surrounded by an encircling river,[7] and scholars have argued that the Greeks derived their concept of Ocean from the Babylonians, the Mesopotamians or the Egyptians, in each of whose regions the formation of the world is exemplified every year by the emergence of the dry land above receding flood waters.[8] Whether or not the idea of Ocean derived from early Near-Eastern or Egyptian thought, it had been whole-heartedly adopted into Greek belief by the time of Homer, and until Herodotus this theory remained essentially unchallenged.[9]

The structure of the earth as Homer conceived it is most clearly seen in the Eighteenth book of the *Iliad*, where he describes the Shield of Achilles.

> On it he fashioned the earth and the heaven and the sea,
> The unwearied sun and the full moon,
> and on it all the celestial bodies which crown the heaven,
> The Pleiades and the Hyades and the mighty Orion,
> And the Bear which is called the wagon by name,
> Which turns on itself, and watches Orion,
> And which (alone) is not a part of the ablutions of Ocean.
> And on it he made two beautiful cities of eloquent men. (18. 483-490).[10]

Homer proceeds with a boisterous description of human life, of herdsmen and of heroic warriors, of death at war, but also of life at peace, of everyday work and of people at play, all of which Hephaistus fashioned on the shield. He depicts city and country life, private and public property. Every aspect of human existence -- work and pleasure, death and life -- are portrayed on the shield, and "around the outermost rim of the thickly-made shield he set the great might of the river Ocean."(18. 607-608).[11] For Homer the shield was a microcosm of

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[7]O.A.W. Dilke, *Greek and Roman Maps*. Aspects of Greek and Roman Life, London: Thames and Hudson Ltd, 1985, fig 2.

[8]G.S. Kirk. "Sense and Common Sense in the Development of Greek Philosophy," *JHS*, Vol. 81 (1961) p.106, also Dilke, *Greek and Roman Maps*. (above, n. 8) p.24 and *KRS*, pp. 11-12.

[9]For the purposes of this work I am regarding Homer as the author of both the *Iliad* and the *Odyssey* although I am aware that there is considerable controversy concerning this matter. The date of the *Odyssey* in particular is in great dispute but "[t]here is some agreement to date the poems in the second half of the 8th cent. BC." M.M. Willcock, "Homer," OCD[3]. p.718.

[10]'Εν μὲν γαῖαν ἔτευξ', ἐν δ' οὐρανόν, ἐν δὲ θάλασσαν, / ἠέλιόν τ' ἀκάμαντα σελήνην τε πλήθουσαν, / ἐν δὲ τὰ τείρεα πάντα, τά τ' οὐρανὸς ἐστεφάνωται, / Πληιάδας θ' 'Υάδας τε τό τε σθένος 'Ωρίωνος / ''Αρκτον θ', ἥν καὶ ''Αμαξαν ἐπίκλησιν καλέουσιν, / ἥ τ' αὐτοῦ στρέφεται καί τ' 'Ωρίωνα δοκεύει, / οἴη δ' ἄμμορός ἐστι λοετρῶν 'Ωκεανοῖο.

[11]'Εν δὲ τίθει ποταμοῖο μέγα σθένος 'Ωκεανοῖο / ἄντυγα πὰρ πυμάτην σάκεος πύκα

the living world[12] where the human *oikoumene* was set into its cosmological context.[13] Homer describes the cities of peace and war, the places of human activity, in their larger world surroundings of earth and sea, of Ocean and sky. In a sense the shield as described by Homer, is itself a map. It is not a map in the sense of providing a realistic representation of aspects of the earth's surface, but only in the sense that it offers a graphic portrayal of how the author of the poems thought of the world and of human and divine space and life within that world.[14] Homer describes Ocean as flowing round the outskirts of the shield, confining the world as represented on the shield, and defining its natural limits. The description leaves no doubt that Homer thought of the earth as flat and circular, surrounded by water - very much as some of the later Milesian philosophers also described it.[15]

There is enough evidence elsewhere in the two poems to demonstrate that this concept of a world surrounded by Ocean was indeed how Homer viewed the structure of the earth. He states that the "stream of Ocean around us went on forever with its foam and murmur,"(*Iliad* 18. 402)[16] and Homer repeats his description of the Wagon turning on a fixed

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ποιητοῖο.

[12]Oliver Taplin, "The Shield of Achilles within the *Iliad*," *G&R* 27 (1980) pp.1-22, and E. Vanderlinden, "Le Bouclier d'Achille," *Les Études Classiques* 48 (1980) pp.97-126.

[13]Like Herodotus, Homer here shows himself as interested only in providing a description of the *oikoumene*, the inhabited world, the world of the living. That this is not a map of the whole cosmos is glaringly noticeable. "The shield is... a celebration of life in the midst of death and destruction." Oliver Taplin, *Homeric Soundings, the Shaping of the Iliad*. Oxford: Clarendon Press, 1992. Homer left out Hades from his description. Achilles goes to fight the battle in which he will die carrying life on his arm. The shield is an image of the world he knows and which he inhabits, but it is also an image of what he is destined to lose. This interest in the human world pervades all Homer's work. "The world as Homer knew it may have been delineated by the distant river Ocean running all around, but it was essentially defined by the human activity within it. People it may be said, dominated the landscape of Homer's world." Michael J.D. Carter, *The World of Herodotus*. MA Thesis, Kingston: Queens University, 1993, p.32. In a rather later poem, the pseudo-Hesiod, describing the shield of Heracles, also described it as rimmed round by the flow of Ocean (*Aspis*. 314-317). Heracles' shield has a few topographical details such as this one of Ocean which give it also a map-like quality, but it is a much less complete depiction of the world, for "whereas the pictures on the shield of Achilles represent the whole world and the life of man, the shield here described is focused on the theme of war." Hermann Fränkel, Early Greek *Poetry and Philosophy, A History of Greek Epic, Lyric, and Prose to the Middle of the Fifth Century*. trans. Moses Hadas and James Willis, Oxford: Basil Blackwell, 1975, pp.110.

[14]Jacob (above, n. 6) p.32.

[15]Federica Cordano, *La Geografia degli Antichi*. Biblioteca Universale Laterza 359, Rome: Laterza, 1992, p.5.

[16]περὶ δὲ ῥόος Ὠκεανοῖο / ἀφρῷ μορμύρων ῥέεν ἄσπετος.

point which he describes on the shield, word for word in the *Odyssey* (5. 275). The Ocean in its limitlessness provided a limit to the world.[17] Not only did it mark the end of the earth, however, but it also provided a link between the earth and the heavens. Although Homer describes Ocean as a river (ποταμός)[18] the implication of the passages concerning the stars being washed by the Ocean is that the further edge of this so-called river is the vault of the sky.[19] Homer apparently thought of the vault of heaven as a solid concave surface, supported by pillars.(*Odyssey* 1. 54). Below this vault lay the flat earth, and in the intervening space the Ocean.[20] In this way the solid vault of heaven provided a definite barrier to an otherwise limitless Ocean, just as the Ocean proffered a boundary to the earth.[21] Although the vault of heaven ensured that the Ocean was not infinite in extent, however, it did not indicate that the Ocean was not of indefinite size. Ocean provided a precise, tangible limit to the earth, but Ocean itself then extended almost limitlessly, "stretch[ing] out into unimaginable distance,"[22] until at some theoretical point it came into contact with the very dome of the sky.

Homer himself had very little grounds for his belief in Ocean, save for the mythological tradition both of his own ethnic community and of the neighbouring people,[23]

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[17]Indeed, in the *Odyssey*. 11. 13, Homer employs the phrase i.e., boundaries of Ocean.

[18]See e.g. *Odyssey*. 11. 639 and 12. 1.

[19]Romm, *Edges of the Earth*. (above, n. 1) p.15.

[20]See E.H. Bunbury, *A History of Ancient Geography Among the Greeks and Romans from the Earliest Ages Till the Fall of the Roman Empire*. 2nd ed., with an introduction by W.H. Stall, New York: Dover Publications, 1883, p.33.

[21]It is true that Odysseus is told to go through the Ocean (*Odyssey* 10. 508) in order to reach an entrance to Hades. It seems probable that this merely refers to sailing along the shore, rather than crossing to the outer rim of Ocean (Romm, *Edges of the Earth*. (above, n. 1) p. 15. See *Odyssey* 11. 21. Even were it referring to a crossing of Ocean, this is in a context of a crossing to a mythical land.

[22]Romm, *Edges of the Earth*. (above, n. 1) p.16.

[23]The *Iliad* and the *Odyssey* betray no knowledge of the Pillars of Heracles let alone of the Atlantic Ocean which lay beyond them, so no support for the idea of Ocean can have come from those quarters. Homer also had such scanty knowledge of Africa, that he could not have gained evidence for the existence of Ocean from the fact that it was surrounded by water. He had no knowledge of the Mediterranean as a lake, and when he distinguished Ocean from the sea, he was not distinguishing "a known outer from an inner sea." See J. Oliver Thomson, *History of Ancient Geography*. New York: Biblo and Tannen, 1965, first published 1948. There are of course those both in antiquity and more recently who have argued that Homer's concept of Ocean was based on real information, either from personal experience or from reports. See e.g. Strabo 1. 3-7, and L.G. Pocock "The Nature of Ocean in the Early Epic," and "On Backward-flowing Ocean," in *Odyssean Essays*. Oxford: Basil Blackwell, 1965. Pocock, for example, argued, unprovably, that Homer himself sailed as far as the Straits of

yet the concept of Ocean was one which became firmly entrenched in Greek geographical thought. Later writers such as Hesiod and Pindar still retained the idea of Ocean although for them it acted as a less definite boundary. For Hesiod, for example, many mythological places, such as the island of the Hesperides and the realm of the Gorgons were "beyond glorious Ocean at earth's end".[24] Ocean ceased to be so much a border of the whole world as a limit to the *oikoumene*.[25] The lands that lay beyond the Ocean were the domain of myths; as far as humans were concerned, the rim of Ocean still formed the confines of the world. The Pillars of Heracles became fixed as the limits to the *oikoumene*. As Pindar says: "Truly has Theron now reached the furthest point with his achievements and from his home grasps the pillars of Herakles' pillars.What lies beyond neither wise nor men nor fools can tread. I will not pursue; I would be foolish." (*Olympian Ode* 3. 43-45, trans.William H. Race).[26] Pindar's speech indicates that beyond the pillars of Heracles is the realm of the divine, or the semi-divine, not of the human. Here is the true limit to the *oikoumene*. Beyond these Pillars lies the vast Atlantic which had been discovered by his time. Ocean represented the absolute *peirata* of the *oikoumene* and the Pillars of Heracles lay at the edge of the *oikoumene*. As Greek geographical knowledge developed, the once purely mythical Ocean of Homer became associated with real geographical features such as the Atlantic or the Caspian sea.[27] Exploration simply furthered the theoretical or mythological idea that the world was surrounded by water. True, this was not fresh water, which Homer's term "river" implies, but since the Atlantic is noticeably less saline than the Mediterranean, the correlation of it with the river Ocean is less of a stretch of the imagination. The vast, seemingly limitless expanse of water which extended beyond the Pillars of Heracles held an obvious connection with the Ocean of Greek tradition.

Gibraltar, and that Homer's description of the river of Ocean flowing back on itself, (*Odyssey*. 20. 63-65) refers to the way the Atlantic current behaves in the vicinity of the Straits of Gibraltar. His argument, however, remains wholly unconvincing.

[24]Hesiod, *Theogony*. 274: αἵ ναίουσι πέρην κλυτοῦ 'Ωκεανοῖο ἐσχατιῇ.

[25]Hesiod, however, does still seem to have retained the idea that there was a solid vault of heaven coextensive with the earth, and so presumably forming something of a confine to Ocean. See *Theogony*. 126-127.

[26]νῦν δὲ πρὸς ἐσχατιὰν / Θήρων ἀρεταῖσιν ἱκάνων ἅπτεται / οἴκοθεν 'Ηρακλέος σταλᾶν. τὸ πόρσω δ' ἐστὶ σοφοῖς ἄβατον / κἀσόφοις. οὔ νιν διώξω. κεινὸς εἴην.

[27]See e.g. Hdt. 1.204; see also H.F. Tozer, *A History of Ancient Geography*. 2nd ed., with additional notes by M. Cary, New York: Biblo and Tannen, 1964, p.73 for reason to believe that some Ionians thought of the Caspian sea as a bay of Ocean.

While the discovery or rediscovery of the Atlantic accorded well with the idea that the world was surrounded by water, proof by investigation was not necessary for any of the early poets' belief in Ocean. Ocean was not merely a stream or body of water surrounding the world; in their eyes, he was also a god, and the source for all other rivers[28]. The idea of Ocean, which was so strongly interconnected with myth, was not lost in the 6th and 5th centuries BC, but persisted even in the work of such people as Thales and Anaximander - people who were key figures in the development of a movement of natural philosophy where rational rather than mythical explanations were sought about the world and the universe.

Hesiod in particular had dealt with many of the problems with which the 6th century Ionian philosophers were coping. He too had attempted "to account for the existence of the world as we know it"[29], but he had done so within a mythological framework. Towards the end of the epic period, however, a more incredulous outlook developed in Ionia which challenged many of the mythological explanations of the world and instead attempted to explain nature by reason.[30] The questions to which the earliest Greek philosophers proposed solutions were very similar to those with which Hesiod, for example, had dealt.[31] Philosophy "began with cosmogony, inheriting the problems implied in cosmogonical myths".[32] No more than the poets did these Ionian philosophers seek to find solutions to their questions in experiment and painstaking investigation;[33] rather, "the new understanding of the world consisted in the substitution of natural for mythological causes, that is of internal

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[28]See *Iliad.* 14. 201 and 206 and 21. 195-197 and *Theogony.* 338-370.

[29]Truesdell S. Brown, *The Greek Historians.* Civilisation and Society, Studies in Social, Economic and Cultural History, Lexington Massachusetts: D.C. Heath and Company, 1973.

[30]J.B. Bury, *The Ancient Greek Historians.* New York: Dover Publications Inc., 1950, pp.8-11

[31]Both groups were, for example, asking questions about the origin, structure and characteristics of the world and the universe. The Milesians found answers in ideas of *kosmos*, or world order, while the poets found solutions more in ideas of divine rule, but the questions posed were very similar. This difference, however, should not be underestimated either, for, as Myres points out, early Milesian philosophers were responsible for "replacing folk-lore of Homer and Hesiod with evolutionary observations...unhindered by religious scruples." John L. Myres, *Herodotus, Father of History.* Oxford: Clarendon Press, 1953, p.43.

[32]F. M. Cornford, *Principium Sapientiae, the Origins of Greek Philosophical Thought.* Cambridge: Cambridge University Press, 1952, p.38.

[33]W.K.C. Guthrie, *The Earlier Presocratics and the Pythagoreans.* A History of Greek Philosophy, Vol. 1. Cambridge: Cambridge University Press, 1962, p.37.

development for external compulsions."[34] In intention, however, the philosophers differed greatly from the poets of early cosmogonies, for the very act of supplying rational rather than mythological explanations demonstrated a dissatisfaction with existing accounts.[35] Nonetheless, in subject-matter, and even to a degree in content, the early Ionian philosophers differed surprisingly little from the earlier "poet-seers"; they still in large part relied upon the facts of traditional wisdom augmented by personal conviction.[36]

The concept of Ocean, or at any rate of a world surrounded by water, shows an obvious continuation in belief between the poets, who derived explanation from myth, and the Milesian philosophers who were endeavouring to rationalise the world. Thales and Anaximenes both thought that the world floated on, and was surrounded by, water.[37] Such rationalising attempts brought geographical thought little beyond that of Homer, who claimed that Poseidon, the god of the sea, "from bellow shook all the unlimitable earth and the sheer heads of the mountains (*Iliad* 20. 57-58)."[38] Thales' theory that movement of the water below the earth caused earthquakes seems little more than a rationalisation of the Homeric idea of their supernatural causation.[39] The practical effect of work such as that of Thales was merely to move this theory from the realm of myth to that of philosophy.[40]

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[34]Guthrie (above, n.33) p.83.

[35]William Arthur Heidel, *The Heroic Age of Science, the Conception, Ideals, and Methods of Science among the Ancient Greeks*. Washington DC: The Carnegie Institute, 1933, p.17.

[36]F.M. Cornford, "Was the Ionian Philosophy Scientific?" *JHS* 62 (1942) p.7. For this idea of revelation as opposed to investigation see e.g. Heraclitus DK B107. I am here concentrating on the connection between the Milesian philosophers and the early epic poets, but for a much more detailed examination of how Milesian philosophical thought did not form such a complete break with the past as terms like "the age of rationalisation" indicate, but rather developed out of earlier ideas, particularly out of religious beliefs, see F.M. Cornford's *From Religion to Philosophy, a Study of the Origins of Western Speculation*. New York: Harper and Row, 1957.

[37]Thales, indeed seems to have thought that water was the first principle of everything. In this belief, his ideas may not have changed very much from those portrayed, for example, in the *Iliad*, where Homer described Ocean as the first parent of all. See *Iliad*. 14.lines 201 and 206. Guthrie (above, n.33) p.60.

[38]αὐτὰρ νέρθε Ποσειδάων ἐτίναξε / γαῖαν ἀπειρεσίην ὀρέων τ' αἰπεινὰ κάρηνα.

[39]James Longrigg, *Greek Rational Medicine, Philosophy and Medicine from Alcmaeon to the Alexandrians*. London: Routledge, 1993, p.29.

[40]As De Sélincourt says "Thales and Anaximander broke through the age long darkness of superstition and the universal tyranny of myth to use their wits and sense upon the fundamental problems of science and cosmology." Aubrey De Sélincourt, *The World of Herodotus*. London: Secker and Warburg, 1962, p.22.

Herodotus, himself denying the existence of Ocean, still records the fear which belief in Ocean had created among the Greeks. Sea-faring was an aspect of Greek life, but long sea voyages provoked dread.[41] Herodotus tells of sailors who attempted to sail round Africa, but became afraid, not because of any dangers they met at sea, but simply because of the length and loneliness of the voyage (4.43). Only in cases of absolute necessity would sailors attempt open-sea voyages; Ocean extended, vast and terrifying, from the edges of the known world to the very limits of human comprehension.

Herodotus' knowledge of the western edge of Europe and Africa was scanty in the extreme. Indeed, he claimed no knowledge of the full western extent of Europe. The fear of travel beyond the Pillars of Heracles affected not only those who believed in Ocean, but also those who did not.[42] Not many dared to journey beyond these Pillars and consequently few tales of the western limits of the *oikoumene* filtered back to the Greeks.

Herodotus' *Histories* provide evidence of the general acceptance of the concept of Ocean at his time, not merely in his own determined rebuttal of the idea, and in the absence of information concerning the edge of the *oikoumene* which Ocean was supposed to surround, but also in the content of some of his tales themselves. In discussing the Hyperboreans, for instance, Herodotus states that they lived at the northern limits of the world beyond the north wind at the edge of the sea. He records the tales of the Hyperboreans, but rejected them because he had no evidence to substantiate the mythical-sounding reports. The stories of the location of the Hyperboreans, however, whom no person was known to have visited, were based on the assumption that such a fabulous people must live on the extreme outskirts of the world, on the edge of Ocean.[43] Herodotus repudiates the existence of

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[41]Romm, *Edges of the Earth*. (above, n. 1) p.16.

[42]The nature of the Atlantic itself, for those who did dare to venture beyond the Pillars of Heracles, merely served to reinforce the terror which traditional beliefs had done much to create. The Atlantic was far more dangerous than the Mediterranean to early travellers, having no steady winds, heavy fogs and sudden gales. To those who chose to hug the coast, being afraid to sail out too far on the limitless Ocean, there were the further dangers of tides and of being cast up on shore. Cary and Warmington, *The Ancient Explorers*. Revised edition, Baltimore: Penguin Books, 1963, p.34.

[43]Herodotus uses the word to explain where the Hyperboreans live, rather than Ocean (4.13.2) but later when recording his doubt about the existence of the Hyperboreans, juxtaposes this statement with his statement of laughter at those who depict the world surrounded by Ocean. It seems clear that the traditional view concerning the Hyperboreans is that they lived on the edge of Ocean. A fragment of Theopompus which describes Meropians crossing "the Ocean with myriads of thousands of men until they came to the Hyperboreans," gives further indication that the Hyperboreans were thought to live on the edge of Ocean. See

Ocean because although he knew, and indeed reports, tales which intimated its existence, he could find no factual proof despite having no evidence to the contrary.[44] In taking this position he was unique. His contemporaries and predecessors, similarly lacking proof but relying on theory, attested to Ocean as a reality.

Anaximander, for instance, although he denied Thales' theory of a world floating on water, postulating instead that the world was held suspended on high, supported by nothing,[45] did not jettison the idea of Ocean entirely.[46] It was he, we are told, who first devised a map of the *oikoumene*,[47] which Hecataeus later improved upon. These two are the only map-makers previous to Herodotus of whom any record exists. Given Herodotus' statement concerning pre-existing maps, it seems logical to assume that Anaximander still accepted the idea of Ocean, which Herodotus so emphatically denied. Anaximander is the earliest known proponent of the other geographical theories which Herodotus rejected, namely the perfect circularity of the earth and the subdivision of it into two continents, Asia and Europe, which

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F.Gr.Hist F75C (trans. Gordon S. Shrimpton, *Theopompus the Historian*. Montreal and Kingston: McGill-Queen's University Press, 1991, p.227). This fragment was, however, written later than Herodotus, so although it gives support to the theory that the Hyperboreans were thought to live on the edge of Ocean, it does not prove incontestably that people believed this at the time of Herodotus.

[44]He had, of course, found that the Caspian sea was not a branch of ocean as people had believed, but was rather a self-contained lake (1.204), but he had no proof that the world to the north and west was not surrounded by water, and he indeed had proof that Arabia (4.44) and Libya (1.203) were, but this evidence was not enough to satisfy him that the world was surrounded by a continuous sea. For Herodotus the principle of falsifiability was important (see e.g. 2.23) - "a true proposal must have the potential of being falsified as well as proved." R. Fowler, "Herodotus and his Contemporaries," *JHS* 116 (1996) p.79. He did not systematically adhere to this principle of falsifiability, but it was a starting point for his investigations.

[45]*KRS* 122b (p.133) = Hippol., Haer. 1.6.3 = DK 12A11.

[46]I have dealt with Anaximander separately from Thales and Anaximenes, simply because his interest in geographical matters was far more wide-ranging than those of his fellow-Milesian philosophers. He appears to have made at least some use of the opportunities to travel proffered by Miletus' important position as a trading state in the eastern Mediterranean, and there is one theory that he himself led a colony to the Black Sea. Guthrie (above, n. 33) p.77. He therefore may have made some use of his opportunities to gain information about the world. Nonetheless, he was not a geographer or an investigator even in the manner that Herodotus was, although Heidel, for example, has argued that he was. William Arthur Heidel, "Anaximander's Book, the Earliest Known Geographical Treatise," *Proceedings of the American Academy of Arts and Sciences* 56 (1921) pp. 239-288. Heidel's paper is interesting and certainly proves that Anaximander had significant geographical interests, but not that he was primarily a geographer.

[47]Agathemerus 1.1 and Strabo 1 and Diogenes Laertius 2.1-2.

mirrored each other in form.[48] To his mind the world was a perfect cylinder, detached from the vault of the heavens, and suspended in boundlessness.[49] The earth stayed still in suspension because it was equally related to all extremes, so it could not move in any direction.[50] He created a map of the world, but it does not seem to have been a useful map, designed to help with travel or navigation; rather it seems to have been essentially "un modèle géométrique de la terre, réduite à quelques formes et lignes essentielles, visible à rendre intelligible sa structure."[51] It is not surprising that Herodotus scoffed at the maps for which his was the prototype. His map of the world was "not the result of *historia* but of *theoria*."[52]

The philosophers, using theory as a basis, were less interested in direct, empirical sources of geographical knowledge. The purely theoretical, exemplified by such ideas as a circular world and the concept of Ocean, influenced Herodotus' geography, even though he was aware of the problems of such ideas. Other strands of geographical information, frequently founded on little more real knowledge than the idea of Ocean, became assimilated into Herodotus' concept of the world more directly. Homer's influence in the area of geography was not limited to his promulgation of the idea of a world surrounded by Ocean. Most ancient authors thought that the travellers' tales of Odysseus were grounded in reality. Strabo, for instance, sought to find real geographical places equivalent to those which Odysseus visited in his travels.[53] Even modern writers try to equate the lands of the *Odyssey* with real places.[54] Homer's topographic descriptions of areas have a photographic quality which makes it easy to believe that they were based upon reality. There are even those who claim that Homer's descriptions are his own eye-witness accounts[55], but such writers seem

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[48]van Paassen (above, n. 1) p.60.

[49]Hippol., *Haer.* 1.6.3 = DK 12A11. See Charles H. Kahn, *Anaximander and the Origins of Greek Cosmology*. New York: Columbia University Press, 1960, pp.53-56.

[50]Aristotle, *De Caelo* 295b 11-16 = DK 12A26.

[51]Jacob (above, n. 6) p.37.

[52]Van Paassen (above, n. 1) p.61.

[53]Strabo passim; see also Thuc. 6.1-2.

[54]The most famous of these is Victor Berard who in the early 20th century wrote his four volume *Les Navigations D'Ulysse* Vols. 1-4, Paris: Armand Colin, ND, reprinted 1971, in which he traced Odysseus' voyage step by step, and tried to correlate every place which Odysseus encountered with a real geographical site.

[55]See L.G. Pocock, *Odyssean Essays* (above, n. 23) and *Reality and Allegory in the Odyssey*. Amsterdam: Adolf M. Hakkert, 1959.

excessively to underplay the huge incongruities in Homer's reports. Thieki, for example, though similar to the island Ithaka depicted in the *Odyssey*, is neither low-lying, nor as near to the mainland as is there described.[56] Although there is "no passage in the *Odyssey* which shows that sort of clear and distinct conception of the geography of western Greece and the surrounding islands which we find displayed in regard to the Eastern or Adriatic shores of the Aegean"[57], the general acceptance of Homer's geography as factual had long-lasting influence.

Homer's travellers' tales told of a world which became ever more bizarre and incomprehensible the further one journeyed from Greece. Homer makes it clear that Greece, and indeed Sparta, was at the heart of his world. Troy was known to the Greeks, but it remained an alien place. For the entire ten years that the Greek army was at Troy, Homer gives an impression of life in suspension. The Greeks remain encamped there, isolated from news of the rest of the world. They are away from the heart of civilisation. The focal point of this civilisation rests at Sparta. Telemachus, for instance, can gain no news of his father in Ithaka, but has to journey to Sparta to find information (*Odyssey* 3.lines 319 -328). The further from this Greek heart of the world, the more peculiar are the people and the places of the *oikoumene*, and the less civilised the world. This portrayal of Greece at the heart of the world later became enshrined in Greek geographical doctrine although later writers and cartographers moved the centre from Sparta to Delphi.[58]

The further Odysseus journeys from this Greek centre of the world, the more bizarre are the people and places with which he comes in contact until he eventually moves beyond the civilised world entirely.[59] The Cyclopes, the Sirens, Scylla and Charybdis are all deadly creatures from an incomprehensible world. Odysseus greets Polyphemus and expects the laws of *xenia* to be observed, but to Polyphemus, Odysseus' customs are alien. The *nomoi* which are so fundamental to Greek society no longer function in these outer regions of the world. Apparently, for Homer, civilisation was the property of the Aegean world. Beyond was the world of the marvellous and the terrible -- the other.

Homer's *Odyssey* with its calculations of distances and of provisions, and with its

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[56]Bunbury (above, n. 20) p.67.

[57]Bunbury (above, n. 20) p.70.

[58]*F.Gr.Hist* 1a T12 = Agathemerus *Ge. Inf.* 1.1.

[59]Jacob (above, n. 6) p.25.

coastal descriptions, has many of the characteristics of a *periplus*.[60] Ideas of a world which became increasingly bizarre as one neared the peripheries, first recorded in Homer, were given further support by the later, more authentic, *periplus* tales which reached Greece.[61] The Greeks and most of their contemporaries gained their knowledge of the world by navigation, and these *periplus* tales were reports written to describe the coast in graphic detail for navigation purposes.[62] They provided information which substantiated the idea that the world beyond that of common knowledge was a world of wonder. *Periplus* tales had presumably circulated round Greece and the Aegean for centuries. The Phoenicians are known to have sailed at least to the west coast of Spain, and possibly even to Britain.[63] Although renowned for their secrecy concerning their trading ventures, they would have found it virtually impossible to prevent any reports of their travels reaching the Greeks and other peoples of the Eastern Mediterranean.[64] By the time of Herodotus and even Homer, the Greeks, the Carthaginians and others sent out colonies and trading parties all over the known world, and even explored hitherto unknown regions.[65]

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[60]Cordano (above, n. 15) pp.8-9.

[61]Some even claim that Homer's topographical descriptions were so realistic because they were based upon navigation reports. See Richmond Lattimore, trans., *The Odyssey of Homer*. New York: Harper and Row, 1968, first published 1965, pp. 12-16, and Aurelio Peretti, "I Peripli Arcaici e Scilace di Carianda," in *Geografia e Geografi nel Mondo Antico, Guida Storica e Critica*. Francesco Prontera ed., Biblioteca Universale Laterza 326, Rome: Laterza, 1990, pp.72-73.

[62]van Paassen (above, n. 1) p.62 and Claude Nicolet, *Space, Geography and Politics in the Early Roman Empire*. Ann Arbor, Michigan: The University of Michigan Press, 1991, p.58.

[63]Certainly reports of the tin isles reached Greece, but whether the tales of the origin of the tin were carried overland, or came from Phoenician sailing ventures is debated. Burton is strongly of the opinion that the Phoenicians could not have reached this far, and believes in an overland route. Harry E. Burton, *The Discovery of the Ancient World*. Freeport, New York: Books for Libraries Press, reprinted 1969, first printed 1932, pp.9-10. Tozer, by contrast, believed strongly in the exploratory progress of the Phoenicians (above, n. 27). Both sides agree that the Phoenicians were careful to keep much of their information to themselves. Romm, *Edges of the Earth* (above, n. 1) p.18 and Tozer, p.8 even suggest that they deliberately spread false information to prevent encroachment upon their trade empire.

[64]Herodotus, for instance, had certainly heard of a Phoenician circumnavigation of Africa 4.42-43. Nonetheless Phoenicians were thought to have gone to some lengths to keep the secrecy of their endeavours. Casson tells the tale of a Phoenician captain who, since he was being pursued, deliberately wrecked his ship rather than give away his destination. Lionel Casson, *The Ancient Mariners, Seafarers and Sea Fighters of the Mediterranean in Ancient Times*. 2nd ed., Princeton: Princeton University Press, 1991, p.62.

[65]E.g. Scylax' voyage around India; see Hdt. 4.44.

These *peripleis* did not confirm in detail the physical realities of the world which Homer described; rather they substantiated his general impression that, as one moved further from the Eastern Mediterranean, the world became more weird and wonderful. In theory the reports contained the results of investigation, but in practice these results were often misleading. In the *Periplus of Hanno*, for instance, as Hanno's men approached the farthest limits of their voyage the sailors came across a "land burning full of fragrance from which streams of fire poured down into the sea."[66] Further on they arrived at a "land by night full of flames, in the middle of this one flame, towered above the others, which seemed to reach the stars."[67] Still further the people whom they encountered were no longer truly human, but savage "Gorillas" speaking no known language.[68] His report includes nothing that was clearly mythical or preternatural. The Carthaginians met "no semi-human monsters or unnatural creations of superstition and literary imagination but only ordinary men and animals (even if some of them present peculiar characteristics)".[69] The language of the report, however, is one of marvel and fear. These two emotions combine in the typical reaction to a first encounter, namely wonder.[70] On two separate occasions the sailors turned away in fear, and eventually abandoned their voyage and sailed back. The places and people

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[66]*Periplus of Hanno*, 79-80 (trans. Oikonomides) ραν διάπυρον θυμιαμάτων μεστ(ήν· μέγιστ)οι δ' ἀπ' αὐτῆς πυ-/ ρώδεις ῥύακες ἐνέβαλλον εἰς τὴν θάλατταν. Ai. N. Oikonomides, *Hanno the Carthaginian Periplus or Circumnavigation of Africa, Greek Text with Facing English Translation, Commentary, Notes and Facsimile of Codex Palatinus Gr.398*. Chicago: Ares Publishers Inc., 1977.

[67]*Periplus of Hanno*. 85 (trans. Oikonomides): ἐν μέσωι δ' ἦν ἠλιβατόν τι πῦρ τῶν ἄλλων μεῖζον, ἁπτόμενον ὡς ἐδόκει τῶν ἄστρων.

[68]This is the first known use of the word Gorilla; exactly what it referred to is unclear.

[69]Jerker Blomquist, *The Date and Origins of Hanno's Periplus with an Edition of the Text and a Translation*, the Royal Society of Letters at Lund, Scripta Minora, Regiae Societatis Humaniorum Litterarum Lundensis, Lund: Liber Laromedel, 1979, p.12.

[70]"Wonder- thrilling, potentially dangerous, momentarily immobilizing, charged at once with desire, ignorance and fear - is the quintessential human response to what Descartes calls a first encounter....The expression of wonder stands for all that cannot be understood, that can scarcely be believed. It calls attention to the problem of credibility and at the same time issues upon the undeniability, the exigency of the experience." Stephen Greenblatt, *Marvellous Possessions, The Wonder of the New World*. Chicago: University of Chicago Press, 1991, p.20. For the Greeks, it was not miracles that invoked wonder. Herodotus describes apparently miraculous occurrences without any indication of that dread and thrill that is a part of wonder. Similarly Homeric heroes did not react to divine intervention with wonder. Rather it is the incredible diversity within the world which provokes such a reaction. See Caroline Walker Bynum, "Wonder," *AHR* 102 (1997) pp.19-20; Bynum is discussing Medieval reactions of wonder, but much of what she says holds true for Greek ones.

which they visited were ones which in no way related to their previous encounters. As they used the language of their experience in an effort to describe what they had seen, the reality became distorted, since their encounters lay outside the realm of their knowledge.[71] Tales of lands brimming with fire and of humans who were not really human merely served to emphasise for the Mediterranean inhabitant the truth of the long-accepted theory that the peripheries of their *oikoumene* were places where reality became warped, where nature was more wild.

Hanno's report is Carthaginian, but it shows a similar mind-set to the Greeks in its centralisation of the Mediterranean. While there is no definite evidence that Herodotus had read this report,[72] it is clear that he had read or at least heard of others like it.[73] The *periplus* writings were only a particular variety of investigative report, however. By Herodotus' time not all Greeks were content staying in their own country, but were beginning to engage foreign travel, and were to be found in far-flung areas of the world.[74] Even land travel was on the increase. Graffiti exist on the walls at Abydos which date to as early as the sixth century BC,[75] and while Egypt may have been an area of prime interest for the curious Greek, it was

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[71]Hanno's *periplus* contains enough geographical information that many have tried to retrace the route of his journey. The most successful of these in my eyes, is Rhys Carpenter's *Beyond the Pillars of Hercules, the Classical World Seen through the Eyes of its Discoverers*, The Great Explorers Series, Delacorte Press, 1966, but since, as Ramin says, "the ancient texts are often vague, contradictory or of uncertain interpretation," the value of these efforts is limited. Jacques Ramin, *Le Périple d'Hannon*, BAR Supplementary Series 3, Oxford: British Archaeological Reports, 1976, p.64. The language of wonder has twisted the reports so much, that while people can make probable identifications, they cannot make definite ones.

[72]Oikonomides believes that the *periplus* of Hanno which has been preserved is, in fact, part of a larger *periplus* which involved a circumnavigation of Africa. (His evidence for this is a few references in Polybius and Pliny the elder, particularly Pliny 2.67.3). He believes that the sentence in Herodotus 2.59 which stated, "this is how Libya was first discovered to be surrounded by sea, and the next people to make a similar report were the Carthaginians" refers to the voyage of Hanno (above, n. 66) p.13. Virtually everyone now agrees that the Greek version of Hanno's report belongs to approximately the time at which Herodotus was writing. One of the few dissenting voices is that of Paul Pédech, *La Géographie des Grecs*. Presses Universitaires de France, 1976, p.31.

[73]E.g. Hdt. 4.43.

[74]Hdt. 1.30, for instance, states that Solon goes abroad in part because he needs to stay away from Greece so that he will not be forced to revoke his laws, but also, in part, because he wishes "to see the world". Nonetheless the importance of travel should not be overstated; it was still arduous and dangerous. See Lionel Casson, *Travel in the Ancient World*. London: George Allen and Unwin Ltd, 1974, p.65-94.

[75]Sayce (above, n. 3) p.257. These are apparently mercenary not traveller's graffiti, but they still indicate a Greek presence in Abydos by that time.

not the only one. Scythia and the regions to the north also became the focus of attention.[76]

Strangely enough, the earliest and most influential journey in disseminating information about the northern territories was also the most extensive. Its perpetrator, Aristeas of Proconnesus, reportedly reached the territory of the Issedones lying to the North of the known Scythian regions.[77] Aristeas recorded the results of his journey and some of the tales which he heard in a poem entitled the *Arimaspea*. Only a handful of fragments from the poem survive, but these are enough to indicate that it contained both credible information, such as that referring to the domino migration effect among a series of people, caused by the aggressive actions of a tribe,[78] and bizarre tales. While Aristeas' poem does seem to have been the result of first-hand information, it did not belong to the rationalising tradition of Herodotus' time. He accepted the accounts of the outer lands reported to him by the Issedonians. Unlike the *periplus* tales, fabulous beings populate his work; one-eyed Arimaspasians and mythical griffins flit through the lines of his verse.[79]

These fictions interwoven into the eyewitness accounts served, in the same manner as the *periplus* tales, to create a world of wonder for the reader -- a world defined in the outer limits of the *oikoumene* by people, beasts and places barely comprehensible to the Greek mind. It was Aristeas who first introduced into Greek legend the tale of gold-guarding griffins inhabiting the region to the north of the Issedonians. His stories, perhaps because they were intermingled with eyewitness accounts of real people, and because they catered to the existing Greek perception of a limit to the *oikoumene* populated by odd creatures, became accepted as fact. Even Herodotus, who demonstrated his incredulity concerning the Hyperboreans whom Aristeas also discussed, did not deny the possibility of the existence of

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[76]One need only look at the descriptions of Scythia in the Hippocratic treatise *Airs, Waters, Places*, in the Aeschylean play *Prometheus Bound*, and in *Histories* themselves, to see the growing interest in this region.

[77]Bolton who wrote the only work of note on Aristeas dates his journey to somewhere between 670 BC and the end of the seventh century. J.D.P. Bolton, *Aristeas of Proconnesus*. Oxford: Clarendon Press, 1962, p.7. Ivantchik disagrees and dates the poem to more than two and a half centuries later, saying that the vocabulary is that of the Ionian logographers and that he must have relied upon them for his information. His argument is not, however, as convincing as Bolton's since there is the reverse possibility that they relied upon him. A. Ivantchik, "L'Arimaspée d'Aristeas de Proconnèse," *AC* 62 (1993) pp.35-41.

[78]According to Bolton's reconstruction of the *Arimaspea* Aristeas discussed how the hostile pressure of the Arimaspasians forced the Issedonians to move, who subsequently compelled the migration of the Scythians, who in turn drove out the Cimmerians. Bolton (above, n. 77) pp.74-75.

[79]See Hdt. 4.13 = Bolton fragment 1 and Tzetzes, *Chiliades* 7.691-692 = Bolton fragment 5.

the griffins and the Arimaspasians.[80] As Bolton has pointed out, an enormous number of people derived information from this poem, so that the world view which it proposed became widely disseminated.

Unlike the *periplus* tales, Aristeas presumably did not merely intend his poem to be a travelogue and useful tool for providing knowledge about a region, although it came to be used for such a purpose.[81] Rather it belonged to a poetic tradition; the mythical tales, though based upon stories told by the Issedonians, were probably included principally for their entertainment value. Although writing in the poetic tradition, Aristeas is a very early example of an author employing an investigative technique.[82] He formed a transition between the epic poets like Homer and their literary descendants, the logographers, incorporating both the mythical subject matter of the epic writers and the investigative reports of the logographers. The fragments give no indication that he employed any language not used by Homer, but because of the topographical and ethnographical concerns of his poetry he used geographical terms with greater frequency than in any of the Homeric writings. These terms, perhaps because Ionian geographers like Hecataeus drew upon the *Arimaspea*, became characteristic of Ionian geographic writing.[83]

Hecataeus of Miletus, a prose writer of the end of the sixth century BC, was one of these geographers who almost certainly depended upon the *Arimaspea* for information. Indeed it seems probable that Hecataeus affected the manner in which the poem was preserved in the few fragments that remain.[84] It is difficult to know the extent to which

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[80]Other stories which are known to have had a factual basis, but which, like the *periplus* tales, became distorted to the point that they were barely credible, also probably had their origins in the *Arimaspea*. Herodotus speaks of the Scythian air being full of feathers - a tale which probably, as Herodotus pointed out, implied snow (4.31). It contained "that touch of the bizarre," however, which was characteristic of the *Arimaspea*. Bolton (above, n. 77) p.44.

[81]What Pearson says about Hecataeus' description of inland Asia presumably also applies to Aristeas; namely that a "Greek reader was more interested in their customs than in the geography of an inland country which he was not likely to visit." Lionel Pearson, *Early Ionian Historians*. Oxford: Clarendon Press, 1939, p.79.

[82]As Bury put it, "the *Arimaspea* anticipated the interest in geography and ethnography which we shall see accompanied the rise of history proper." (above, n. 30) p.7.

[83]In the first two lines of fragment four he uses four terms - ἀνθρώπους, καθύπερθεν, ὁμούρους, πρὸς βορέω - characteristic of the Ionian geographers. See Bolton (above, n.77) p.17.

[84]There are various testimonia to the *Arimaspea*, but there are very few surviving fragments. Bolton lists only 7 fragments in total and 21 testimonia. Of the 7 fragments, two are from Herodotus, three from Tzetzes, and the remainder from Longinus. See Bolton pp.208-214. Of

Aristeas' poem influenced Hecataeus' work, however, since both survive only in fragments too small to make a strong connection. It has even been suggested that Hecataeus' references to the northern regions were derived from reports of Darius' expedition to Scythia, but it is far more probable that Aristeas was his source for these.[85] What is clear is that Hecataeus wrote a very different brand of geography from that in which Aristeas indulged. Human and investigative geography, from at least the time of Homer onwards, had become increasingly intermixed with a record of the past, and had simultaneously been growing ever more distant from mathematical or theoretical geography. There is no evidence that the Ionian philosophers, with their cosmological works and maps of the earth, were concerned with human geography.[86] Similarly, Aristeas and the *periplus* writers were uninterested in theory, although their tales gave support to theoretical ideas about the outskirts of the world. In his *Περίοδος Γῆς* however, Hecataeus combined both the theoretical and the investigative approaches, and even found room for the mythological elements that had directed early geographical thought.[87] "With his *periegesis* he laid the connection between the logographers and the natural philosophers, between history and cosmology".[88]

Hecataeus' geographical situation as well as his personal inclination must have had some influence upon his work and his ability to form a connection between those who wrote from theoretical knowledge, and those who wrote from empirical. Until 494 BC Miletus was one of the most independent Greek cities in Asia Minor and also one of the most affluent, situated at the centre of an extensive trade network.[89] Its location in Asia Minor opened it to the influences of Oriental philosophy, while at the same time its interconnection with much

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these fragments only twelve lines are potential quotations, and even these are rather dubious. Bolton Fs.3-5, cited in Tzetzes' *Chiliades,* are almost certainly from the *Arimaspea*, although they have been filtered "through the mediation of Hecataeus or some Ionian geographer." See Bolton (above, n.77) p.19.

[85]Brown (above, n. 29) p.9.

[86]As G.E.R.Lloyd says, the Presocratic natural philosophers had a "total dearth of anything that looks like a deliberate observation." They would draw analogies or depend on purely abstract argument. G.E.R.Lloyd, *Magic, Reason and Experience, Studies in the Origin and Development of Greek Science.* Cambridge: Cambridge University Press, 1979, p.139.

[87]Strabo in 8.3.9 having cited Hecataeus immediately previously, argued that the early historians said many falsehoods because of their use of myth in their writings.

[88]Van Paassen (above, n. 1) p.64.

[89]G.E.R. Lloyd, "The Social Background of Early Greek Philosophy and Science," in *Methods and Problems in Greek Science.* Cambridge: Cambridge University Press, 1991, p.131.

of the Mediterranean through its trading empire brought it in contact with other cultures as well.[90] It had ninety colonies on the Black Sea alone,[91] which Casson described as "almost a Milesian Lake".[92] With ships from all over the Mediterranean docking at Miletus, Hecataeus and his fellow citizens had the opportunity to learn much about the *oikoumene*.[93] The affluence of the city certainly proffered some people the leisure to indulge in intellectual occupations,[94] and the intellectual environment of a city which had given rise to some of the great early philosophers must have affected Hecataeus' world perception. The same factors which had contributed to the development of Miletus as the centre of Ionian philosophy, and which had already contributed to Anaximander's geographical studies, aided and influenced Hecataeus.

Hecataeus, like his successor Herodotus, drew upon all the different sources of geographical knowledge from Homer to Aristeas, from Anaximander to *periplus* tales, and further augmented these with the results of his own investigation. He, like Herodotus, was primarily concerned to generate a universal geography by amalgamating his knowledge of specific regions into one integrated account.[95] He adopted the form of a *periplus* in describing, in a clockwise rotation, all the countries which bordered the Mediterranean.[96] Though such a lay-out is evident from the fragments, they provide very meagre information concerning the actual content of the *Περίοδος Γῆς*. The result is that modern authors have called him everything from "one of the founders of geographical science"[97] to the author of "a mere log book with etymological digressions".[98] Given the meagre source material, it has even been possible for such well-known scholars as Wells and Heidel to take diametrically

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[90]Guthrie (above, n. 33) p.31.

[91]Pliny *NH* 5,112. Modern research confirms at least 45 of these. See Guthrie (above, n.33) p.29.

[92]Longrigg (above, n. 39) p.28 and Casson, *The Ancient Mariners*. (above, n. 64) p.71.

[93]These opportunities are often overstated, however. The sailors were traders, and no less than the Phoenicians were they likely to share their knowledge about profitable markets. See Pearson "Review of M. Ninck, *Die Entdeckung von Europa durch die Griechen* (Basel 1945)," *AJP* 70 (1949) p.81.

[94]Tozer (above, n. 27) p.59.

[95]Kurt von Fritz, "Herodotus and Greek Historiography," *TAPA* 67 (1936) p.325.

[96]Brown (above, n. 29) pp.10-11 and Pearson, *Early Ionians*. (above, n. 81) pp.30 and 95.

[97]Bury (above, n. 30) p.11.

[98]M.O.B. Caspari, "On the *Ges Periodos* of Hecataeus," *JHS* 30 (1910) p.239.

opposite positions. The former claimed that the majority of his extant work is, in fact a Hellenistic forgery,[99] while the latter argued that Herodotus derived much of his information from the *Περίοδος Γῆς*.[100]

While Heidel overstates his case concerning Herodotus' indebtedness to Hecataeus, it is certain that Herodotus derived much information from Hecataeus. In Book II of the *Histories* which is largely devoted to a discussion of Egyptian history, geography and ethnography, and is known as the Egyptian *logos*, Herodotus' indebtedness to his predecessor is particularly evident. Both authors had first-hand knowledge of the country.[101] Herodotus' account of his time in Egypt reveals his disappointment that his experiences were so similar to those recorded by Hecataeus.[102] When writing about Egypt, his language even echoes that of Hecataeus. Both authors, for instance, call Egypt "the gift of the Nile,"[103] and Herodotus drew his account of the phoenix, the hippopotamus and the hunting of crocodiles, from Hecataeus.[104] Although there are fewer extant fragments concerning Libya, it is also almost certain that Herodotus derived much of his information for that region from Hecataeus as well.[105] The influence of Hecataeus on Herodotus is not so clear for other regions, although for the area round the Euxine, Hecataeus was almost certainly the first to record the tribal names which became part of the accepted tradition of later writers.[106]

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[99]J. Wells, "The Genuineness of the *Ges Periodos* of Hecataeus," *JHS* 29 (1909) pp.41-52.

[100]William Arthur Heidel, *Hecataeus and the Egyptian Priests in Herodotus Book II.* Memoirs of the American Academy of Arts and Sciences, Vol. 18 part 2, Boston: the American Academy of Arts and Sciences, 1935.

[101]Pearson, *Early Ionians.* (above, n. 81) p.82. Agathemerus called Hecataeus a much travelled man (*Fr.Gr.Hist* 1a, T12a), but the Egyptian fragments are the only ones that give clear evidence of first hand knowledge, and Stephanie West has even cast doubt on the first-hand authority of these, although in so doing she overstates her case. Stephanie West, "Herodotus' Portrait of Hecataeus," *JHS* 111 (1991) p.152.

[102]Pearson, *Early Ionians.* (above, n. 81) p.85.

[103]*F.Gr.Hist* 1a, T15C = Arrian, *Anabasis* 5.6.5 and Hdt 2.5.1.

[104]*F.Gr.Hist* 1a F324 = Porphyrus, Eusebius PE X 3. See Herodotus 2.70-73. This is a generally accepted fact, although Wells, the main proponent of the forgery theory, did not believe it, and instead accepted Herodotus' claim that he got his information concerning the phoenix from pictures and from men of Heliopolis. Wells (above, n. 99) p.48.

[105]F. Jacoby, "Hekataios von Milet," *RE* 7.2, 1912, cols. 2727ff, and Jacoby *F.Gr.Hist.* 1b p.371ff. Also Pearson, *Early Ionians* pp. 90-95 and Thomson, p.68 (above, n. 23) p.78. Compare e.g. *F.Gr.Hist.* 1a F287 with Hdt 4.68 for "tell-tale phraseology." Pearson, *Early Ionians.* (above, n. 81) p.90.

[106]Pearson, *Early Ionians.* p.67.

Like Herodotus, Hecataeus was certainly interested in different customs[107] though there is no indication that he went into the same degree of elaborate detail concerning peoples' customs or *nomoi*. His ability to discuss customs must have been greatly helped by the information drawn from traders passing through Miletus. Traders would be less likely to provide much information of a purely geographical nature, but their knowledge about customs and races must have been fairly extensive if their trading ventures were to be successful.[108] Hecataeus therefore was also able to gain material about other ethnic groups, and, in an age where the majority of Greeks saw themselves as alienated from other nations, studied other races as individual units, not merely as the barbarian other. He, for instance, seems to have provided information about Persian clothing, which was picked up almost word for word by Herodotus,[109] and Herodotus' information on distinctly Thracian customs may also have been derived from Hecataeus.[110]

Hecataeus' interest in people also extended to the way in which he described colonial cities. He focused on the native inhabitants of such cities and seems to have made reference to the colonisers only rarely. He "preferred giving the geographical or ethnographical rather than the political affiliation of a city".[111] For instance, he referred to Narbo as a Celtic city and Massalia as a Ligurian one.[112] Often he seems to have been at pains to relate races to places. For example, the Ilauragatai seem to derive their name from the river Ilaraugates (*F.Gr.Hist.* 1a F49); the city of Eliburg is linked with the Eliburgian race (*F.Gr.Hist.* 1a F38). These ethnographical and geographical connections may be an indication that Hecataeus adopted the same kind of environmental determinism that can be seen both in Herodotus' *Histories* and in the approximately contemporary *Airs, Waters, Places*. Certainly some have postulated that the author of *Airs, Waters, Places* and Herodotus shared the same source, and

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[107]E.g. *F.Gr.Hist.* 1a F9, F322 and F358e = Athenaeus 4.148f, 3.114 and 9.410 respectively.

[108]Bunbury (above, n. 20) p.188.

[109]"It is at least a remarkable coincidence that the two points where we know what Hecataeus said about peoples' costumes find their exact reflection in Herodotus. Hecataeus (*F.Gr.Hist.* 1a F287) said that the Matienoi wore the same costumes as the Paphlagonians; so does Herodotus (7.72.1). Hecataeus (*F.Gr.Hist.* 1a F284) said that the Kissians wore Persian clothing, so does Herodotus (7.62.2)." David M. Lewis, "Persians in the Histories of Herodotus," in *The Greek Historians, Literature and History.* (above, n. 4) p.116.

[110]Pearson, *Early Ionians.* (above, n. 81) p.57.

[111]Pearson, *Early Ionians.* (above, n. 81) p.39; *F.Gr.Hist.* 1a F166 is very unusual in presenting a political not an ethnographical affiliation. See also p.61.

[112]*F.Gr.Hist.* 1a F55 and F56 see Pearson, *Early Ionians.* (above, n. 81) p.38.

that this source was most probably Hecataeus.[113] If this was indeed the case, then it seems likely that he did adopt such an outlook. It is impossible to say for certain, however. Hecataeus may, in fact, have emphasised the political affiliation of the cities, but because such details were not of interest to Stephen of Byzantium, the main source for Hecataean fragments, they have not survived.

Whether or not he advocated a theory of environmental determinism, Hecataeus certainly adopted other theoretical approaches. A fragment from the *Γενεαλογίαι* indicates that unlike Herodotus, Hecataeus did not endeavour to record all reports, but only related what seemed to him to be the truth;[114] again the fragments do not provide enough information to know for certain, but it seems probable that he applied the same editing process to the information from his *Περίοδος Γῆς*. He sorted his information to suit his theories. Unlike Herodotus, he does not seem to have contradicted outright earlier geographical theory, but rather built upon it. Hecataeus was not averse to recording some facts that plainly belonged to the realm of mythology. "The accounts of Phoenix and the floating island of Chembis show that he was not above relating *thaumata* without comment on their probability. It is quite certain he combined his geographical description with mythological excursuses."[115] Just as he tried to find real locations for Homeric places,[116] so also he improved upon the theoretical map of Anaximander, adjusting it to the new information which he had gained through investigation.[117] Indeed, he probably drew the map

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[113]Jacoby, "Hekataios," (above, n. 105) col. 2680; See also William Arthur Heidel, *The Frame of the Ancient Greek Maps with a Discussion of the Discovery of the Sphericity of the Earth.* History of Ideas in Ancient Greece, American Geographical Society, New York: Arno Press, 1966, first published 1937, p. 19, and Detlev Fehling, *Herodotus and his "Sources", Citation, Invention and Narrative Art.* trans. J.G. Howie, Leeds: Francis Cairns Ltd, 1989, n. 4 p.28. Fehling does not agree with the common source idea but cites the literature on the subject.

[114]*F.Gr.Hist.* 1a F1a = Demetrius, *De Eloc.* 12.

[115]Pearson, *Early Ionians.* (above, n. 81) p.87.

[116]See e.g. *F.Gr.Hist.* 1a F239 = Strabo 14.1.8

[117]T. 12a = Agathemerus 1.1. Agathemerus uses the word, so it is possible that he was referring to both Anaximander and Hecataeus as making verbal maps on which others drew. It does not seem probable, however, within the context of the other fragments, particularly those referring to Anaximander. Anaximander seems to have been visually minded. He is thought to have made a model of the heavens (DK 12A1 = Diogenes Laertius 2,1-2). It therefore seems likely that he made a model of the earth also - a map, and did not just create a verbal one. If this was indeed the case, then Hecataeus, if he were improving upon the map of Anaximander, was also making a visual map.

as a companion to the *Περίοδος Γῆς*, so that the information from the one had to be suited to the other.[118]

This highly schematised map contained all that Herodotus scorned. Hecataeus was a firm believer in the mythological Ocean acting as the source for all rivers and circumscribing a perfectly circular world.[119] His investigative technique had not brought him to the point of rejecting or even querying what he could not prove. He retained the symmetrical shape of a world divided into two equal continents, with Libya nothing more than a subdivision of Asia. Beyond this he probably further subdivided the earth into schematic arrangements of squares and quadrilaterals.[120] Unlike the mythological and philosophical writers, Hecataeus employed new techniques of investigation in his geographical work, yet the schematic result did not differ greatly from early conceptions of the world.

The brand of geography which Hecataeus produced seems to have seized the public imagination. Here was a world of rigid structure and order but one where the unexpected and marvellous still existed. Phoenixes and river horses were not confined to the realms of myth but existed at the margins of the world. Islands floated freely. Hecataeus told stories of places and peoples all around the Mediterranean, demonstrating to the Greeks the extensiveness and variety of the world. In the fifth century when trade and war were opening Greece to foreign influences and interests, Hecataeus seems to have provided the material to cater to these interests. Aristeas produced reports of the lands to the north of Greece, some of which had been incorporated into Hecataeus' *Περίοδος Γῆς*. Hecataeus filled out the descriptions of the rest of the world. Both Aristeas and Hecataeus initiated a process of investigation, even if they did not refine the technique greatly. It was the more fantastical, as well as some of their more structural ideas of world geography, rather than their process of accumulating information, however, that was swept into the sphere of public knowledge. Aristeas seems to have had a certain fame, and Hecataeus was so well known that Herodotus apparently assumed he would be a familiar figure.[121] Their ideas were incorporated into the realm of

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[118]Lionel Pearson, "Herodotus on the Source of the Danube," *CP* 29 (1934) p. 334.

[119]In addition to the scathing evidence in Herodotus (4.36 and 2.21) which almost certainly refers to Hecataeus, *F.Gr.Hist.* 1a F18a of the *Γενεαλογίαι* (= the Scholiast on Apollonius of Rhodes 4.259) provides clear evidence that Hecataeus thought of Ocean as the source of the Nile.

[120]See e.g. Hdt 4.99f which describes Scythia in terms of a square and is probably derived from Hecataeus.

[121]Stephanie West, "Portrait of Hecataeus," (above, n. 101) p.145.

public geographical knowledge without any of the reservations that Herodotus places upon them. Instead, they became combined with age-old geographical beliefs to produce a conception of the world that had little bearing on reality.

The geographical descriptions in the *Prometheus Bound* show how just such a combination of new knowledge and ancient tradition could create a muddled and fantastical view of the world. People have endeavoured to reproduce the route which Io was to travel, but to do so they have to interpret the text extensively.[122] It is scarcely feasible to attempt to locate the more specific places and people whom she visited; "no one could hope to duplicate the journey here outlined without running into a maze of impossibilities,"[123] with the result that modern attempts at reproduction have led to wildly differing maps of the world.[124] Nonetheless, despite the vagueness of the geography, the author of the *Prometheus Bound* was not relying entirely on his own invention.[125] Many places and descriptions, and even to an extent the manner of placing mythological beings in real geographical locations, can be attributed to Hecataeus and possibly Aristeas of Proconnesus.[126] The play also demonstrates, however, that it was the theoretical and unbelievable aspects of these earlier works which caught the attention of the playwright.

Certainly the description of the one-eyed Arimaspasians and the griffins is likely to have had its origins in Aristeas' poem,[127] and while the geographical excursus is vague in the extreme, it is clear that the author had heard some information about Scythia and the northern regions which he included in the poem. For instance, his description of the Amazons, while offering the reverse explanation to that of Herodotus for their location in the region around Lake Maeotis, seems to have had some grounding in reality. Herodotus too

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[122]See for instance Bolton (above, n. 77) chapter 2, and his arguments concerning the Rhipaean mountains and the Caucuses.

[123]Thomas G. Rosenmeyer, *The Masks of Tragedy, Essays on Six Greek Dramas*. Austin: University of Texas Press, 1963, p.69.

[124]E.g. maps in Griffith (ed.), *Prometheus Bound*. Cambridge; Cambridge University Press, 1983, and in Bolton (above, n.77).

[125]Aeschylus was traditionally thought to be the author of the Prometheus Bound, but during the last century his authorship has come into dispute. See n. 152 below. I have therefore chosen to refer to the play as if it were written by an unknown author.

[126]See Bolton, Chapter 3 and D.J. Conacher, *Aeschylus' Prometheus Bound: a Literary Commentary*, Toronto, University of Toronto Press, 1980, p.18.

[127]See Bolton (above, n. 77) p.44.

situated Amazonian women in this region, although he believed that they migrated there.[128] Such details may well have owed their origins either directly or indirectly to the *Arimaspea*.[129] They are attractive details, which contributed nicely to building an image of the world which was "marvellous and mysterious", capable of "arrest[ing] the attention and interest of the Athenians who were always eager for fresh knowledge and new ideas."[130] They are, however, the aspects of the *Arimaspea* which derived from hearsay rather than from eye-witness accounts. They can no more be attributed to investigative geography than can the voyages of Odysseus. Aristeas undertook eye-witness investigation, but his empirical knowledge was not that which attracted the author of the *Prometheus Bound*.

The majority of the geographical detail in the *Prometheus Bound*, however, came not from Aristeas but from Hecataeus. The description of the bi-partite world, where the Cimmerian-Bosporus and the Phasis River together separated Europe from Asia;[131] the conviction that Ocean surrounded the world;[132] even less generalised geographical ideas, such as the notion that the Nile Delta formed the extent of Egypt,[133] all seem to have had

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[128]Hdt. 4.11-17.

[129]Bolton (above, n. 77) p.63.

[130]E.E. Sikes and St. J. B. Wynne Willson eds., *The Prometheus Vinctus, The Prometheus Vinctus of Aeschylus with Introduction and Critical and explanatory Notes*, London: MacMillan and Co. Ltd., 1898, p.181.

[131]The mention of the Phasis River comes in the *Prometheus Unbound* F191, not the *Prometheus Bound*, but since they were almost certainly to be performed in the same play cycle, they can be taken together. Almost all authors agree that the *Prometheus Bound* and *Prometheus Unbound* belong together, although for the contrary argument see Mark Griffith. *The Authenticity of the Prometheus Bound*, Cambridge: Cambridge University Press, 1977, p.245-252; also see Rosenmeyer (above, n. 123) pp.51-102 for a discussion of how the play culminates with a perfect conclusion; a conclusion which indicates a completeness in the play which did not necessarily require it to fit into a play cycle. Rosenmeyer was not, however, arguing so much against the possibility of it being part of a cycle of plays as for it being a perfect tragedy in its own right. By Herodotus' time people had discovered that the Phasis River was far smaller and less extensive than the exaggerated myths suggest. Early tales of the Argonauts, from Hesiod to Hecataeus, however, show that the Phasis was "conceived of as adjacent to the Cimmerian-Bosporus and continuing the latter's function of cleaving the continents." Bolton (above, n. 77) p.57. See also Pearson, *Early Ionians*. (above, n.81) pp.64-65 for a discussion of how Hecataeus divided the continents in just such a way. The author of the *Prometheus Bound* clung to this traditional way of dividing Europe from Asia.

[132]There are repeated references to the stream of Ocean e.g. PV 302. The author of the *Prometheus Bound* still seems to have adopted the very traditional Homeric idea of a river of ocean, not even a sea, such as later writers like Anaximander imagined.

[133]For Hecataeus' belief in the restriction of Egypt to the Nile Delta see Hec. *F.Gr.Hist.* 1a

their origins in Hecataean thought.[134] In addition to these general geographical concepts the author of the *Prometheus Bound* followed the Hecataean manner of combining geography with myth.[135] Just as the author of the *Prometheus Bound* only adopted the mythological and fantastical ideas of Aristeas rather than the empirical ones, so also he took only Hecataeus' theoretical concepts and his method of combining mythology and geography.

The *Prometheus Bound* demonstrates that many Hecataean ideas had become accepted not just by the author of the *Prometheus Bound*, but by society in general. While the "actual course of wanderings of Io in the *Prometheus Bound*...[was] no doubt largely the poet's own invention,"[136] it is inconceivable that the poet would have created a route and a geography that did not coincide with popular ideas. It was Prometheus, the person who gave knowledge and discernment to humans,[137] who recounted the route. If the geographical reports of this figure of wisdom had not accorded with general perceptions of the world, he would have seemed ludicrous. The force of the play would have been undermined.[138] It can therefore be assumed that the ideas recounted here agreed with popular perceptions of the geography of the world.[139]

F300 and also Hdt 2.15 for Herodotus' argument against the Ionians who postulate such a theory.

[134]τρίγωνον, meaning triangular clearly refers to the shape of the Nile Delta (PV 813). By calling Neilotis, or Egypt, the triangular land the author limits its extent to the Nile Delta. It is just such an opinion as this that Herodotus is combating in 2.15 when he blames the Ionians for propounding such an implausible theory. In Herodotus more often than not the term Ionians when referring to intellectual figures, seems to be directed against Hecataeus. It is well-known that Herodotus was greatly indebted to Hecataeus for his account of Egypt, so it seems almost certain that Hecataeus advocated the idea that Egypt as "a gift of the Nile" (a term which Herodotus also uses), was limited to the Nile Delta. He may not have been the only proponent of this idea, but given his extensive study of Egypt, he was probably its originator, and the author of the *Prometheus Bound* was indebted to him for it.

[135]All but three of the extant fragments of the *Γενεαλογίαι* referring to specific books of that work, are geographical, and there is "the presence of geographical touches" throughout the work. Pearson, *Early Ionians*. (above, n. 81) pp.97-98, e.g. *F.Gr.Hist*. 1a F7a and F28.

[136]Conacher (above, n. 125) p.18.

[137]See especially lines 447-471.

[138]See E.A Havelock, *The Crucifixion of an Intellectual Man*. Boston: The Beacon Press, 1950, Chapter 6 for Prometheus as a symbol of wisdom and the role of the geographical speeches.

[139]Christian Froidefand, *Le Mirage Egyptien dans la Litterature Grecque D'Homère à Aristote*. Aix-Marseille: Université d'Aix-Marseille, 1971, p.77.

The geographical passages appear to form a verbal map. They follow the clockwise route of the *Περίοδος Γῆς*, and create an outline of the world which is thought to have been complemented in the *Prometheus Unbound* by the travels of Heracles.[140] Between the two plays it is believed that the author described the outlying regions of the whole world as he conceived it.[141] The effect of this partially fact-based account was to cater to the Greek interest in the *oikoumene*, and also to reinforce the idea that had evolved from at least the time of Homer, that the outskirts of the world were populated by the weird and wonderful. Thus the catalogue of names and places called attention to the unfamiliarity of the world.[142] Just as for Herodotus the marvellous regions and people gave his formless world shape, so did they in the *Prometheus Bound*. The ring of Ocean gave some shape to the world, Prometheus' words gave more.[143]

The travels of Io, condemned to roam through the remotest borders of the earth,[144] provide evidence for the conviction that just like Herodotus, the author of the *Prometheus Bound* thought that the *oikoumene* was framed by the uninhabitable. Among other hazards which she had to encounter, such as griffins and one-eyed Arimaspasians, she was fated to cross the lofty Caucasus, and journey through the lightless lands of the Gorgons and the Graeae.[145] The physical description of the area where Prometheus was chained gave further shape to the *oikoumene*. As in Herodotus, the world of the *Prometheus Bound* was framed by *eremia*, by deserted lands. Prometheus was chained in the trackless waste land at the farthest edges of the earth.[146] For Herodotus, such regions existed north of Scythia, but for the author

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[140]Havelock (above, n. 138) p.61.

[141]As Bunbury says "it is impossible to believe that in this confused and unintelligible jumble of names and ideas, Aeschylus had the map of Hecataeus, or any other, present to his mind." Bunbury (above, n. 20) p.151. Nonetheless the word map created by the author of the *Prometheus Bound* had the basic shape and clockwise organisation of Hecataeus' *Περίοδος Γῆς*.

[142]Rosenmeyer (above, n.123) p.69.

[143]Charles Segal, *Interpreting Greek Tragedy, Myth, Poetry and Text*. Ithaca, New York: Cornell University Press, 1986, p.86.

[144]*PV* 666: ἄφετον ἀλᾶσθαι γῆς ἐπ' ἐσχάτοις ὅροις.

[145]*PV* 717-721, 793-801, 804-805. Χθονὸς μὲν ἐς τηλουρὸν ἥκομεν πέδον, / Σκύθην ἐς οἶμον, ἄβροτον εἰς ἐρημίαν.

[146]The play opens with Power describing the farthest reaches of Scythia, saying (*PV* 1-2) - we have come to the remote region of the earth, into the Scythian tract, into the trackless wasteland.

of the *Prometheus Bound* they were part of Scythia. Certainly the playwright did not believe that all Scythia was uninhabited, for he gave a description of the nomadic Scythians that closely resembled some of those in Herodotus,[147] but for him Scythia was a region not restricted to the territory of the Scythians but reaching beyond to the limits of the *oikoumene*. The world of the *Prometheus Bound* in general was much smaller than that of Herodotus, with not merely the northern limits but all the outlying regions contracted into a relatively small area.[148]

While it is possible that the author of the *Prometheus Bound* took his conception of the size of the world from Hecataeus, and certainly probable that he derived the location of many, though not all, of the mythological beings from him, he was also capable of massively altering Hecataean details. Both Hecataeus and Herodotus, for instance, agreed that the Chalybes lived on the southern shores of the Black Sea.[149] Such details of investigative fact were unimportant to the playwright who located them in Scythia (717). Scythia was known as a land of iron (303) and the Chalybes as iron workers (714). It seems probable that the author of the *Prometheus Bound* relocated them to Scythia because he had been swayed by the theory of ethnographic determinism which became popular among the more scientific writers of the second half of the fifth century BC.[150] He thought that they belonged in Scythia because iron workers were the type of people that the iron-land of Scythia would produce.[151]

In recent years there has been an enormous controversy concerning the authorship of the *Prometheus Bound*,[152] which has created further problems in the dating of the work.

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[147]Compare Hdt. 4.46 with *PV* 707-711.

[148]Bolton (above, n. 77) p.62.

[149]*F.Gr.Hist.* 1a F203; Hdt. 1.28

[150]See Donald Lateiner, *The Historical Method of Herodotus*. Toronto: University of Toronto Press, 1989, p.49 regarding the sophistic doctrine of environmental determinism.

[151]See Griffith (ed.), *Prometheus Bound.* (above, n. 124) pp.216-217, and Bolton (above, n. 77) p.48.

[152]In the last century the authorship, and consequently the dating of the *Prometheus Bound* has become a matter of considerable debate. Aristotle gives a specific reference to a Prometheus play in the Poetics 18.1445a2f, but gives no clue about the author of the play. The Alexandrian scholars were the first to attest to Aeschylean authorship for the *Prometheus Bound*. See Griffith, *Authenticity.* (above, n. 130) pp.8-9. With no irrefutable evidence assigning the work to Aeschylus many scholars, having studied "the metrical technique of the lyrics and anapests, and of the iambic trimeters, the quantity and context of the actors' anapests, the irregularities of the stichomythia, the choice of vocabulary, a number of syntactical modernisms, the curious frequency of repetition, and the relative simplicity of the general style"(Griffith, *Authenticity.* p.225) concluded that these were highly un-

Flintoff, a firm advocate of Aeschylean authorship, has postulated that it was his earliest work, and indeed the earliest extant Greek tragedy.[153] Most others -- both those claiming Aeschylean and non-Aeschylean authorship -- have argued for a much later date between 457 BC.[154] and 445 BC.[155] The latest possible date is about 435 BC.[156] If it were the earliest, it would not be surprising to see such a full-scale adoption of Hecataean ideas in the play. This

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Aeschylean qualities and that the play must be the work of another author. Although some 19th century scholars had laid the groundwork for authorship controversy, it was Wilhelm Schmid who became the first outspoken advocate for non-Aeschylean authorship. He was so convinced of this that he placed the play in a separate volume of his *Geschichte der Greichischen Literatur* than the Aeschylean dramas. He placed it under the category of plays influenced by sophistry and rhetoric, claiming that both in content and in style it was so far removed from any of the true Aeschylean plays, that while betraying some evidence of the influence of that author, it could not be attributed to him. Wilhelm Schmid, *Geschichte der Greichischen Literatur, Die Klassische Periode der Griechischen Literatur.* Vol. 1, part 3, Munich: C.H. Beck'sche Verlagsbuchhandlung, 1961, first printed 1940, p.281. While many of Schmid's arguments have been called into question, his was the first step in a long, heated and to a certain extent insoluble debate. The advocates for Aeschylean authorship claim that many of the changes in style, such as a much greater use of particles than in other extant Aeschylean plays can be attributed to a development in Aeschylean writing over time. (E.g. C.J. Herington, *The Author of the Prometheus Bound.* Austin: University of Texas Press, 1970, chapter 2). Others have looked outside the play and through comparative evidence such as that gleaned from Aristophanes and Epicharmus (e.g. Everard Flintoff, "Aristophanes and the *Prometheus Bound*," *CQ* 78, 1983 pp.3-5, and Everard Flintoff, "The Date of the *Prometheus Bound*," *Mnemosyne* 39, 1986, pp.82-91) have attributed it to Aeschylus. Others such as Dodds have adopted a compromise solution stating that some of the play was probably Aeschylean but was drastically reworked, perhaps by his son Euphorion. E.R. Dodds, "The Prometheus Vinctus and the Progress of Scholarship," in *The Ancient Concept of Progress, and other Essays on Greek Literature and Belief.* Oxford: Clarendon Press, 1973. Since 1977, however, with the publication of Griffith's comprehensive book on *The Authenticity of the Prometheus Bound*, in which he studied elements of style and content as well as comparative material, the argument for non-Aeschylean authorship has been given much impetus, and has tended to be in the ascendancy, with other noted Promethean scholars such as Martin L. West accepting such a point of view. See Martin L. West, "The Prometheus Trilogy," *JHS* 99 (1979) pp.130-149.

[153]Flintoff, "The Date of the Prometheus Bound," (above, n. 152).

[154]Herington p.104 and Diana Ferrin Sutton, "The Date of the Prometheus Bound," *GRBS* 24 (1983) p.294.

[155]M.L. West, "The Prometheus Trilogy," (above, n. 152) pp.147-148.

[156]If one takes only literary evidence, the *Knights* of Aristophanes written in 424 BC which contains distinctive echoes of the *Prometheus Bound* provides the *terminus ante quem.* In the play Prometheus is chained to a rock whereas in all in earlier depictions of the story he had always been chained to a post. The *pagos*, or rock, which was part of the theatre of Dionysus in Athens until it was removed in 435 BC provides such a probable prop for the crag to which Prometheus was chained that it seems likely that its removal provides an earlier limit for the play, Sutton 289-294.

date is unlikely, however, and relies entirely on external evidence, taking little account of a century's worth of arguments from style.[157] A later date is much more probable. Such a date, however, puts the *Prometheus Bound* within little more than twenty years of the composition of Herodotus' *Histories*. The popular geography of the *Prometheus Bound* shows clearly the kind of entrenched jumble of geographical ideas which Herodotus found himself forced to combat.

The adoption of such ill-founded ideas into the general corpus of Greek geographical knowledge, explains the vehemence with which Herodotus contested these theories. The author of the *Prometheus Bound* neglected many factual details such as the real location of the Chalybes, information he might easily have gleaned from Hecataeus. Hecataeus made an invaluable contribution to Herodotus in matters of specific detail, and in the general investigative technique which Herodotus refined, but which Hecataeus had already employed. To the popularised geography of Herodotus' time, these aspects of his work made little difference. In this branch of geography his main theoretical ideas were correctly grasped and narrated while the minutiae of investigation were overlooked. Mythology and theory ruled supreme while empirical knowledge was still largely disregarded.

Historia, or investigation, did not gain ascendancy in the study of geography until Herodotus. Even Herodotus was not entirely lacking in theoretical and mythological conceptions, but these lay much further buried beneath the results of his investigation. Like Hecataeus, Herodotus was not merely influenced by investigative reports such as his own travels and *periplus* tales. He did not dispense entirely with the long tradition of geographical writing which had preceded him. Although he scoffed at Hecataeus' map, the schematisation of that work affected his own geographical writing. He included many of the tales reported in the *Περίοδος Γῆς*. Similarly theories such as a world centred round Delphi, and ideas of a balance of continents are evident in his work. He failed to reject existing theories as thoroughly as his exclamation in Book Four might suggest. More importantly he accepted reports of marvels and monsters at the outskirts of the world, circumscribing his world, with a ring of the weird and wonderful but not with the traditional concept of Ocean.

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[157]See Herington Appendix B.

Chapter 3.

Boundaries of the Human World: Herodotus and the Limits of the *Oikoumene*

Once Herodotus had rejected the notion of a world surrounded by water which his predecessors had proposed, he was left with the perplexing, indeed in some measure terrifying, concept of a world without limit: a world which stretched endlessly until it faded away ultimately merging into the sky. Such a world view no doubt presented an abrupt challenge to the ancient imagination. As far as the Greeks were concerned everything on earth was bounded. This chapter involves a study of how Herodotus therefore contrived to give conceivable dimensions to his world, by defining its extent with different limits, limits of uninhabitable regions and of seas, which were applicable to the *oikoumene*, although not to the whole world. He became blinkered to the fact that much of the ancient world was surrounded by water, since such an idea would have given support to the theory of Ocean, an idea for which there was certainly no empirical support from the east or north of the world. Although he had rejected the idea of Ocean because he believed it was unsupported by investigation, at times, in his descriptions of the framework of his world, he too relied upon ideas which though not necessarily refuted by the evidence, were certainly not supported by investigation. For example, he resorted to the unsubstantiated idea that there was an inherent symmetry to the world in his descriptions of its structure.

Had he restricted his descriptions of the limits of the earth to that for which he had empirical proof, he would have been left with the concept of a world without bounds, a concept which was foreign to a society whose very philosophy became dominated by ideas of boundaries and limits, and the difference between the bounded and the boundless, the limited and the unlimited.[1] For Hesiod the absolute horror of Tartarus was dominated by the fact that here was a region above which were the boundaries and sources of everything on earth, but which in itself was a yawning gulf: "Here are the harsh and mouldering places at which the very gods groan; a great chasm; if first one were within the gates, one would not come to the earth's surface in the space of a whole year" (*Theogony* 740-741).[2] Unlike the concept of an indefinitely large Ocean, the idea of an unbounded world was not conceivable for the ancient

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[1]See e.g. Pythagoras, Parmenides and Anaximander all of whom speak outright about these subjects. Even the language and thought of such a revolutionary as Heraclitus were affected by the ideas of boundaries and limits which were so prevalent (see DK F94).

[2]χάσμα μέγ', οὐδέ κε πάντα τελεσφόρον εἰς ἐνιαυτὸν / οὖδας ἵκοιτ', εἰ πρῶτα πυλέων ἔντοσθε γένοιτο.

Greeks.

The notion of a boundless[3] sea which dated back at least toHomer had added to the fear and dread with which the Greeks viewed the Ocean,[4] but it was a part of the ancient conceptualisation of the universe in the way that a boundless world was not. Beyond the Pillars of Heracles water was thought to stretch endlessly, or at least to the very vault of the sky. The early poets dealt with it by confining it to a region beyond mortal knowledge. It was the realm of the divine and semi-divine. Its extent was indefinite, beyond human conception; its inhabitants, or at any rate any who could venture into such a region, were comparably greater than any humans.

When the trends in Greek thought shifted away from the mythical and legendary, the mythical beings were exiled from the descriptions of Ocean, but the concept of this indefinite expanse of water ringing the earth did not disappear. It was no longer the realm of Heracles and the Gorgons; instead it became drafted into the fundamental explanations of natural philosophy. Thales, the earliest of the Milesian philosophers, described the earth as floating on water,[5] and indeed seems to have argued that water was the originative substance, the matter from which everything developed. The very boundlessness of the Ocean may have been a factor in Thales' selecting water as the first principle,[6] since the concept of an originative substance involved the idea of undefined form or indefinite extent.[7] Thales'

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[3]Throughout this chapter when I refer to anything being spatially boundless, I do not mean literally infinite, but rather indefinite in extent. The idea of infinite extension did not evolve until advancements in mathematics and geometry made it a necessity. F.M. Cornford, *Principium Sapientiae, The Origins of Greek Philosophical Thought*. Cambridge: Cambridge University Press, 1952, p.175.

[4]See discussion in previous chapter. *Iliad* 1, 350 and *Odyssey* 4, 510.

[5]Aristotle, *De Caelo*. 294a 28.

[6]There is very little known about Thales' philosophy. Aristotle provides our earliest descriptions of Thales' theories, but it is apparent that he did not have Thales' own writing to refer to, since he introduced every reference to Thales cautiously with statements such as "they say he said" and "perhaps". W.K.C. Guthrie, *The Earlier Presocratics and the Pythagoreans*. A History of Greek Philosophy. Vol. 1, Cambridge: Cambridge University Press, 1967, p.55. There is no indication that Thales ever wrote anything, let alone that it was extant by the time of Aristotle. Kathleen Freeman, *The Presocratic Philosophers, a Companion to Diels, "Fragmente der Vorsokratiker."* 2nd ed., Oxford: Basil Blackwell, 1949, p.50. Aristotle argues that Thales chose water as the first principle because everything is nourished by moisture and the seeds of everything have a moist nature, but he admits these reasons are only his own guesses (*Metaph.*, 983b 22).

[7]Kahn, for example, argues that Heraclitus by calling the soul limitless was making a deliberate "allusion to the supreme principle of cosmic structure", and that he saw the *psuche*

successor in the Milesian school, Anaximander, provided the most blatant example of this association of boundlessness with the first principle when he described a different, though still material and perceptible substance[8] as the ultimate source of everything, terming it ἄπειρον or Boundless.[9]

In both philosophical and mythical contexts therefore the idea of unbounded, or at any rate seemingly endless water was not inconceivable. But while there existed the tradition of an Ocean extending indefinitely to same vague and unimaginable boundary of the sky, no-one had proposed that the earth was anything but finite, disc-like or cylindrical in shape.[10] In all depictions of the world prior to Herodotus, the Ocean ran around the fringes of the world forming the πείρατα 'Ωκεανοῖο. The inner shore, the only known edge of the Ocean formed the πείρατα γαίης, the boundaries to the earth. "When you stand upon the land by

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as playing the role of the first principle of cosmic structure. Charles H. Kahn, *The Art and Thought of Heraclitus an Edition of the Fragments with Translation and Commentary.* Cambridge: Cambridge University Press, 1979, p.128. Hesiod is already beginning to frame such an idea when he talks about every bounded thing developing out of the unbounded void. See *Theogony* 376ff. and discussion in Hermann Fränkel, *Early Greek Poetry and Philosophy, a History of Greek Epic, Lyric and Prose to the Middle of the Fifth Century.* Moses Hadas and James Willis trans., Oxford: Basil Blackwell, 1975, pp.105-107.

[8]*KRS*, p.66.

[9]It must be admitted, however, that it is not entirely clear whether Anaximander thought of his originative substance as boundless in terms of spatial extent, or in terms of inner division and interior boundaries. Kirk argues that it means both spatially indefinite and qualitatively indeterminate. See *KRS*, p.113-115. Kahn and Cornford provide much more detailed discussions of its meaning, showing all the nuances of the word. See Charles H. Kahn, *Anaximander and the Origins of Greek Cosmology.* New York: Columbia University Press, 1960, pp. 231-239 and F.M. Cornford, *Principium Sapientiae.* (above, n. 3). pp.171-176. Romm admits the validity of the arguments about the ἄπειρον at least having an element of being quantitatively indeterminate, but points out that it must also have had some connotation of indefinite extent. James S. Romm, *The Edges of the Earth in Ancient Thought, Geography, Exploration and Fiction.* Princeton: Princeton University Press, 1992, p.11. None of these authors, however, provides a discussion of the ἄπειρον which entirely sets aside the idea of indefinite extent. The boundless is boundless because it comes in contact with nothing else to limit it. It is "supposed to be infinite because [it] never give[s] out in human thought." Cornford, *Principum Sapientiae.* p.174, n. 2. It is probable that Anaximander had not defined the idea clearly to himself and thought of this substance as both internally and externally boundless. In either case, the boundlessness of his ἄπειρον and of Thales' and Anaximenes' water provided little aid in comprehending Herodotus' boundless lands.

[10]"[G]iving boundaries to the earth was a fundamental act in defining the world-view of the archaic Greeks, for it allowed them to mark off a finite stretch of earth from the otherwise infinite expanse of space all-around." Michael J.D. Carter, *The World of Herodotus.* MA Thesis, Kingston: Queen's University, 1993, p.31.

the farthest sea, when with one step forward you will leave the land behind, you stand upon the πείρατα γαίης. It is a precarious position. It is the line between opposite elements, the limit of the human world."[11] When Herodotus rejected the idea of Ocean, he left himself with the concept of an unbounded world, which, unlike the idea of unbounded water, was one which was not conceivable to the Greeks. They were too concerned with the idea of spatial and territorial limits; ideas which pervaded all elements of their literature from philosophy to poetry and drama.[12] A world without limits became the same kind of vast, unknowable, untraversable space which Hesiod dreaded so much in his description of Tartarus; a world infinitely greater than human knowledge. Without directly addressing the unfathomable idea of a world of indefinite extent, Herodotus contrived to bring his world into a manageable framework, defining it with limits conceived and expressed in ways more suited to observing and describing than were the essentially theoretical limits which had heretofore formed the boundaries of the world.

He took the "natural step that led from the attempts at understanding the *kosmos* and the *oikoumene* to a description of the latter".[13] Unlike his geographical predecessors, he was not interested in the *kosmos*, and the boundaries with which he was concerned were not therefore those which defined the extent of the earth as a whole, but rather those of the *oikoumene* - the inhabited land. Πείρατα, the word which his predecessors from Homer onwards had used, as an "imaginative construct" to "represent the physical extremities of the earth"[14] is not found anywhere in the *Histories*.[15] Herodotus avoided drawing an absolute line of demarcation at the extreme edges of the *oikoumene*, yet showed that the *oikoumene*

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[11]Anne L.T. Bergren, *The Etymology and Usage of* ΠΕΙΡΑΡ *in Early Greek Poetry, a Study in the Interrelationship of Metrics, Linguistics and Poetics*. American Classical Studies 2, *APA*, 1975, p.22.

[12]See e.g. Parmenides, Heraclitus, Aeschylus, Homer, Hesiod, all of whom bring up ideas of Boundaries of the world and of kingdoms.

[13]Felix Jacoby, *Atthis, The Local Chronicles of Ancient Athens*. Oxford: Clarendon Press, 1949, p.199.

[14]Romm, *Edges of the Earth.* (above, n. 9) p. 11-12. See Richard Broxton Onians, *Origins of European Thought about the Body, the Mind, the Soul, the World, Time and Fate.* Cambridge: Cambridge University Press, 1994 first published 1951, Part III, chapter 2, and Bergren, (above, n. 11) pp.1-25, for the origins of the word Πείρατα and its evolution in meaning from a rope or bond, through metonymy, to indicate a bound or boundary. Bergren provides a particularly good discussion of the πείρατα γῆς the bonds or bounds of the earth.

[15]See J. Enoch Powell, *A Lexicon to Herodotus*. Hildesheim: Georg Olms Verlagsbuchhandlung, 1960 and Romm, *Edges of the Earth.* (above, n. 9) p.37.

was, in fact, limited in all directions by either water or *eremos*.[16]

Although Herodotus did believe water could act as an external boundary, he was frequently disinclined to emphasise the importance of seas as such a limit. His reluctance to refer to such obvious physical boundaries as seas can most easily be attributed to his desire to counteract any possible support for the theory of Ocean that might be found in his work.[17] In some cases where traditional reports indicated that a landmass was surrounded by water, he reports this fact, but minimises the importance of such water as a limit by focusing on the interior boundaries of the *oikoumene* formed by *eremos*. Therefore, although, for instance, he states that "Libya shows itself surrounded by water except as much of it as borders with Asia (4.42),"[18] he believed that the *oikoumene*, as it extended into Libya was limited not by the water, but by *eremos*. He explains that "in the interior of Libya, the land is *eremos* and waterless and without wild animals and rainless and timberless and there is no moisture in it (4.185.3)."[19] Such a desert was impassable: its extent unknown. As a result, it formed a limit to human habitation and an effective boundary both to Herodotus' possibilities of geographical enquiry and to his portrayal of the continent.

He reports a ridge of sand which acted as a line of demarcation between this uninhabitable *eremos* to the south and the *oikoumene* which extended the whole length of

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[16]*Eremos* has a variety of meanings in Greek and is therefore best left untranslated. It always has the sense of uninhabited, but can also mean desert or wasteland, although it does not always do so. It is, in fact, an adjective, which Herodotus most often uses in conjunction with the words γῆ or χώρη. See 4.5 and 4.8 for examples of the former, 4.185 for an example of the latter. Occasionally, however, Herodotus uses it by itself, understanding the noun which it modifies. I have chosen to use just the adjective by itself, since its noun counterpart *eremia* does not have the range of meaning which *eremos* implies, and since there is no single noun which Herodotus consistently employs with it. I have used the masculine singular and plural forms.

[17]Romm argues that "the debate is not over the general idea that the world is surrounded by water - Herodotus acknowledges that this is true, at least for a greater part of the world - but whether the waters form a continuous circle." James S. Romm, "Herodotus and Mythic Geography; the Case of the Hyperboreans," *TAPA* 119 (1989) p.101. It strikes me that Romm is on very shaky ground here; the only region of the world which Herodotus admits was surrounded by water was Libya, and as his reluctance to refer to water as a boundary indicates, he tries to downplay this fact, presumably because it could otherwise give support to the idea of Ocean.

[18]Λιβύη μὲν γὰρ δηλοῖ ἑωυτὴν ἐοῦσα περίρρυτος, πλὴν ὅσον αὐτῆς πρὸς τὴν Ἀσίην.

[19]ὑπὲρ δὲ τῆς ὀφρύης ταύτης, τὸ πρὸς νότου καὶ ἐς μεσόγαιαν τῆς Λιβύης, ἔρημος καὶ ἄνυδρος καὶ ἄθηρος καὶ ἄνομβρος καὶ ἄξυλός ἐστι ἡ χώρη, καὶ ἰκμάδος ἐστὶ ἐν αὐτῇ οὐδέν.

Africa along the shores of the Mediterranean.[20] He presumably believed that the *oikoumene* of Libya ended in the west at the ocean, but his description of the ridge and the *eremos* draws the readers' attention away from this detail. In stating that the ridge of sand ended at the Pillars of Heracles, he distracts the readers' notice even further from the idea of the ocean as a boundary. It is possible that he literally means that the ridge of sand curved northwards to culminate at the Pillars of Heracles, but much more probable that he "mean[s] that it extended as far westwards as the Pillars, though lying considerably further south".[21] The reference to the Pillars of Heracles rather than to a sea or ocean seems a deliberate obfuscation. Although in traditional thought the Pillars of Heracles were the last point to which humans dared journey before passing into the unknown realm of Ocean, the Pillars were still a feature of the landmass and not of the sea; no actual mention of water crept into the *Histories* at this point.

Where the realities of his geographical knowledge and reports enabled him to find no boundary but water, Herodotus takes pains to call it by another name than Ocean, making clear, for instance, that the sea to the west of the Pillars of Heracles was called the Atlantic.[22] Elsewhere seas which might have provided support for the idea of an Ocean boundary more or less vanish from his work. Although he refers to the circumnavigation of Africa and indeed explicitly states that the Atlantic and the Red Sea "are one"(1.203), the sea as a

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[20]See 4.168 to 4.181. In 4.181 he states that "he has now narrated all those of the nomad Libyans living along the sea; above these further inland is the Libya of the wild beasts and above the wild beasts lies a ridge of sand which reaches from Egyptian Thebes to the Pillars of Heracles". Οὗτοι μὲν οἱ παραθαλάσσιοι τῶν νομάδων Λιβύων εἰρέαται, ὑπὲρ δὲ τούτων ἐς μεσόγαιαν ἡ θηριώδης ἐστὶ Λιβύη, ὑπὲρ δὲ τῆς θηριώδεος ὀφρύη ψάμμης κατήκει, παρατείνουσα ἀπὸ Θηβέων τῶν Αἰγυπτιέων ἐπ' Ἡρακλέας στήλας. This ridge of sand was in fact inhabited, but it lay on the extreme margins of the *oikoumene*, almost in the territory of the mythical or marvelous people like the Ethiopians and Pygmies, who were the only people capable of inhabiting the outermost regions.

[21]William Arthur Heidel, *The Frame of the Ancient Greek Maps*. History of Ideas in Ancient Greece, American Geographical Society, New York: Arno Press, 1976, first published 1937, p.29; Heidel's interpretation seems to be the only probable solution, but it is not without its own problems, since Herodotus did not believe that the Pillars of Heracles were in the most western region of Africa, but rather thought that Africa extended west as far as the promontory of Solois (4.42). See E.H. Bunbury, *A History of Ancient Geography Among the Greeks and Romans from the Earliest Ages Till the Fall of the Roman Empire*. W.H. Stall introduction, 2nd ed., Vol. 1, New York,: Dover Publications Ltd., 1883, p.163. How this further western extent fits with the rest of the Libyan geography of ridges and *eremos* is unclear.

[22]4.181. It is only about this time that the name Atlantic was introduced into the Greek language. See Romm, *Edges of the Earth*. (above, n. 9) p.32.

southern border to the *oikoumene* is nowhere mentioned in his work. The *eremos* to the south of Egypt and Libya takes its place. As with the reference to the Pillars of Heracles rather than to the Atlantic, the apparent replacement of the sea with *eremos* as a boundary to the *oikoumene* seems a deliberate attempt to deflect attention from the idea of Ocean. Herodotus states that the sailors who circumnavigated Africa took time to stop to plant and harvest crops for the journey as they sailed (4.42). In other words, Herodotus cannot have thought that the entire south of Libya was desert, yet the effect of his emphasis on the vast *eremos* is to create just such an impression.

Likewise, Herodotus certainly knew about the existence of the Arabian Gulf to the East of Africa since he believed in the circumnavigation of Africa, and he argues that the area now filled by the alluvial deposits of the Nile Delta was once a gulf similar to the Arabian Gulf (2.11). Herodotus portrays this Gulf as marking the boundaries of the *oikoumene* no more than he shows the Atlantic or the sea to the south of Libya as doing so, however. In the East, as in the West, the African *oikoumene* petered out into desert not sea. Herodotus places great emphasis on the waterless region which lay between Arabia and Egypt (3.4-3.9). Since no-one could survive in this area because of the complete dearth of water, this desert region acted as the boundary of the *oikoumene* on the Libyan land-mass, not the Arabian Gulf. The sea did not create the problems for survival that the desert did. Anyone attempting to cross into Egypt had to devise elaborate methods of bringing water into the region and thus making it at least temporarily inhabitable.[23]

Herodotus exerts great effort in distracting his audience's attention from the importance of water as a boundary in his discussion of Libya, since it was the only extensive region of the world which he was convinced was entirely surrounded by sea. By contrast, he asserts outright that Persia and the Asian lands in general end at the Arabian Gulf and the Red Sea (4.39-40), and even declares that all of the south of Asia from the mouth of the Indus as far as the Arabian Gulf is surrounded by water (4.44). He then, however, makes the rather confusing remark that the southern of the two Asian peninsulas is customarily thought to end at the sea, but that such is not in fact the case.[24] Instead the only boundary he describes

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[23]The Arabian king, for example, provided water when Cambyses attempted to conquer Egypt, either by piping water into the region, or by filling enough water skins to enable Cambyses and his entire army to have sufficient water to cross the desert (3.9).

[24]Precisely how he perceived the topography of the world in this region is unclear. He presents a diagrammatic structure, which seems obvious enough until one tries to map it, at which point his reluctance to discuss any peripheral sea makes it essentially unmappable. For instance, he describes the Asian land as culminating in two peninsulas towards the west, but

is a desert to the south of Arabia abutting Egypt which seems to have formed a limit to that region. Further to the east, however, the only possible boundary which he depicts is the sea which formed the south eastern limit of the *oikoumene*. Even this sea, however, is mentioned only in passing, whereas Herodotus places much emphasis on the eastern boundary of Asia, which, he states, is "inhabited as far as India, from there on it is desert to the east and no-one is able to say what kind of place it is (4.40.2)."[25] The *eremos* land formed the boundary to the *oikoumene*, and, as in Libya, a limit to human knowledge.

By stressing the importance of *eremos* as a boundary, Herodotus was not falsifying nature. The world which he knew is, in reality, marked by a preponderance of deserts. The North of Africa borders on the Sahara. To the north-east of Scythia lies desolate Siberia, south of which is the Gobi desert and the desert east of the Indus valley which reaches from Moultan to Gouzerat.[26] Herodotus let these deserts serve as the limits of the world, believing that they extended over greater distances than was really the case. Although they provided limits for the inhabited world, these *eremoi*, unlike the water πείρατα of Homer or even of the Milesian philosophers, did not form entirely inviolable limits. Certain areas, such as all of Scythia, which had once been *eremoi*, acting as borders to the *oikoumene*, were now inhabited (4.11.4); their land claimed for the *oikoumene*.

While some areas which had once been wastelands on the periphery of the *oikoumene* had ceased to act as limits to the inhabited world and had become populated, some *eremoi* had never acted as real boundaries to the *oikoumene*, for some were traversable; *eremos* by definition, however, implies a lack of inhabitants, so even these penetrable *eremoi* at the very least implied a break in the *oikoumene*. Such *eremoi* indicated that the traveller was nearing the outskirts of the *oikoumene*. No unpopulated areas existed toward the centre of the world. These latter *eremoi* areas acted as a warning that humans were reaching a strange and hostile area where they might not survive.

Herodotus clearly differentiates the areas of utter desolation from those that might be made inhabitable or at least traversable. The region south of the Nile was said to be

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he never mentions the sea separating one from the other.

[25]μέχρι δὲ τῆς Ἰνδικῆς οἰκέεται ἡ Ἀσίη · τὸ δὲ ἀπὸ ταύτης ἔρημος ἤδη τὸ πρὸς τὴν ἠῶ, οὐδὲ ἔχει οὐδεὶς φράσαι οἷον δή τι ἐστί.

[26]James Wheeler, *The Geography of Herodotus, Developed Explained and Illustrated from Modern Researches and Discoveries*. London: Longman, Brown, Green and Longmans, 1854, p.15.

uninhabited, and by inference uninhabitable, "because of the heat" (2.31).[27] He thought humans were simply unable to adapt to that extreme a temperature. The region to the east of India was *eremos o*n account of the sand (3.102.3); a territory of pure sand is likewise uninhabitable, providing humans with no source of food or water. Herodotus emphasises that other areas were true boundaries not in terms of their inhospitable nature, but simply in terms of their extent. The land to the east of the Caspian sea was boundless desert, stretching farther than the eye could see (1.204). Similarly a region of utter and boundless desolation marked the northern extent of Europe (4.18.3; 5.9.1). Indeed, only on this occasion in the entire *Histories* does Herodotus use the words *eremos aletheos* applying it to the land to the north of the Androphagi (4.18.3). Here was true wasteland, completely uninhabitable. He seems to have believed that this *eremos* region stretched right across Europe extending eastward beyond the Danube and covering all the region to the north of that river for its entire length - almost to the westernmost regions of Europe (5.9.1). Unlike lesser *eremoi,* there was no possibility of claiming an *eremos aletheos* area for the *oikoumene*, so such a region formed an effective confine for Herodotus' boundless world.[28]

Although these *eremoi* areas formed a boundary to the *oikoumene*, they were a far step from the rigid limits to the world that terms like πείρατα γῆς indicated. They involved no such connotation of a fixed line, a bond that is implicit in terms like πείρατα, but rather were open-ended, having a distinct internal edge, but no clear external one.[29] "Les confins de la carte ionienne sont d'avantage une zone qu'une ligne."[30]

The nature of these zones and the limits to the *oikoumene* are far more clear in Herodotus' description of the northern and southern boundaries of the *oikoumene* than of the eastern and western ones.[31] The *eremos aletheos* area to the north of Scythia extended westwards the entire length of northern Europe. Eastward lay the boundless wasteland beyond the Caspian, while to the south, stretching all across Libya and Egypt, lay the hot, uninhabitable deserts. The southern extent of Asia is less clearly defined in terms of desert, but it still has a distinct boundary, for Herodotus could not have supposed that the *oikoumene*

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[27]ὑπὸ καύματος.

[28]Romm, *Edges of the Earth.* (above, n. 9) pp.34-35.

[29]Romm, *Edges of the Earth.* (above, n. 9) p.36.

[30]Christian Jacob, *Géographie et Ethnographie en Grèce Ancienne.* Cursus, Paris: Armand Colin, 1991, p.54.

[31]Romm, "Herodotus and Mythic Geography,"(above, n. 17) p.110.

extended beyond the sea which he knew surrounded Asia from the mouth of the Indus River as far as the Arabian Gulf. Although the eastern and western limits are less obvious than these *eremoi* regions which formed decisive northern and southern borders to the *oikoumene*, they are not entirely non-existent as Romm seems to imply in his article on mythic geography.[32] Herodotus understates the importance of sea as a western limit to the *oikoumene* in Libya, but nonetheless he must have thought of the sea as acting as a frontier for human inhabitation, since he describes no land beyond it. Similarly, the unknown expanse of sandy desert in Asia to the east of India acted as an eastern edge (4.40.2).

Herodotus is nowhere clear about the exact relation of the continents to one another, but he seems to have thought that Europe and Asia were split, not along a north south axis but from east to west.[33] This axis ran eastward from Greece through the Euxine and the Caspian Sea to the Araxes River. Thence it extended for "an indefinite distance, ending in the unknown regions to the eastward."[34] Westward it ran approximately through Delphi and continued the length of the Mediterranean. Europe lay along the northern shore of the Mediterranean, and Libya the southern one. Herodotus therefore believed that Asia and Libya were adjacent to one another, connected by a land bridge at the Arabian desert. The eastern and western limits in these continents respectively therefore formed the eastern and western limits of the entire southern portion of the *oikoumene*.

While Herodotus depicts the Asian and Libyan confines of the *oikoumene* with some

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[32]Romm, "Herodotus and Mythic Geography," (above, n. 17) p.111.

[33]Herodotus never describes such an axis in so many words. What he does observe is that the world was formed in a series of north-south symmetrical opposites. Egypt, for example, was the mirror image of Scythia. See François Hartog, *The Mirror of Herodotus, The Representation of the Other in the Writing of History*. Janet Lloyd trans., Berkley and Los Angeles: University of California Press, 1988. The most obvious of these symmetrical opposites which he remarked upon was the Nile and the Danube. Indeed, he determined the course of the Nile by that of the Danube (2.33-34). As Myres pointed out, "any symmetry of north and south is necessarily symmetrical about an east-west axis lying between them." So one can determine the course of the east west axis by plotting the symmetrical pairs and connecting the middle points between them. J.L. Myres, "An Attempt to Reconstruct the Maps Used by Herodotus," *Geographical Journal* 8 (1896) p.609. This central axis therefore formed the equator of the Greek world, with the Nile lying roughly on the winter tropic, and the Danube on the summer one. The position of the tropics, can be determined from the reason which Herodotus gives for the so-called flooding of the Nile: the sun crosses Africa in winter, causing the water from the Nile to evaporate at that period, but in summer moves further north, presumably to the area of the Nile's counterpart, the Danube, so the Nile then flows at its full volume (2.24-27). See Heidel, *Frame*. (above, n. 21) pp.21-22.

[34]Bunbury (above, n.21) p.162.

clarity, he is far less precise in his discussion of Europe. He is "prepared to regard the NW as unknown country because no Ionian writers have dealt with it adequately and the knowledge of merchants had not yet been passed on to literary men."[35] He states outright that he does not know for certain that there is sea to the north, east (4.45), or west (3.115).[36] Indeed, the absence of such definite knowledge formed much of his grounds for hisrejection of the entire concept of Ocean. Although the *eremos aletheos* region created a northern border to the *oikoumene*, the eastern and western extremes of Europe, unbounded by either sea or wasteland, stretched endlessly into oblivion. Herodotus does not attempt to grapple with the problem of this unlimited stretch of *oikoumene*. Western Europe simply fades from the pages of his work.[37] On two occasions he mentions that "the Cynesii lived farthest toward the setting sun of all who lived in Europe (2.33, 4.49),"[38] but where precisely they lived, and what defined the limits of their territory are questions he left unanswered. He had little knowledge concerning these regions, and less support for the idea of a framework of water or

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[35]Lionel Pearson, "Credulity and Scepticism in Herodotus," *TAPA* 72 (1941) pp.345-346.

[36]The Greeks in general had notoriously little geographical knowledge of the west of Europe. After Hecataeus Greek geographical interest was directed almost exclusively toward the east. Paul Pédech, *La Géographie des Grecs*. Littératures Anciennes, Presses Universitaires de France, 1976, p.19. The west was a region, mysterious and marvellous, through which the gods and heroes travelled freely, but which was little known to lesser beings. Paul Fabre, *Les Grecs et la connaissance de l'Occident*. Thèse Presentée devant l'Université de Paris, June 20, 1977, p.12. Some knowledge of the west opened up with the development of western Greek intellectual communities such as the Pythagorean school, whose observations and theories reached Greece proper (Fabre p.21), but it never became the focus of Greek literature in the same way as the orient.

[37]It is, in part, easy to account for the absence of these regions and their inhabitants, since they played no role in the background or history of the Persian Wars. His subject matter necessitated that he limit the attention which he paid to certain regions. Carthage, for instance, was unimportant both to his historical thesis of the Persian wars and to his ability to develop a world geography. Therefore, although he clearly admired Carthage which was becoming one of the great powers of the Mediterranean in the fifth century BC, and mentioned it frequently in passing, it merited no place in his geography. Similarly his references to Italy, the region which ultimately became his home, are scanty, though they betray a familiarity with the geography. The almost complete absence of reference to the regions and people of western Europe, however, seems more than merely accidental. On many occasions, such as in his neglect of the evidence of water-bound regions, Herodotus proves himself capable of deliberate blindness and obtuseness. His lack of discussion of the western limits of the *oikoumene* seems just such a case.

[38](2.33) ... οἳ Κυνησίοισι, οἳ ἔσχατοι πρὸς δυσμέων οἰκέουσι τῶν ἐν τῇ Εὐρώπῃ κατοικημένων; (4.49)... οἳ ἔσχατοι πρὸς ἡλίου δυσμέων μετὰ Κύνητας οἰκέουσι τῶν ἐν τῇ Εὐρώπῃ. The second time he actually refers to them as the Cynetes not the Cynesii, but he obviously means the same people.

eremos for the *oikoumene*. He therefore glosses over his lack of knowledge, and turned to a different type of boundary - a boundary of the continents rather than of the *oikoumene*.

Herodotus may admit to a lack of knowledge about the eastern and western boundaries of Europe, but he draws this shapeless earth into a conceivable form by resorting to a purely theoretical principle common in the philosophical thought of his time: namely the idea of a symmetrical opposition inherent in all nature.[39] He believed, on very little grounds, since he knew the eastern extent only of the Asian *oikoumene* and not of its landmass, that Asia and Africa were the same size, and deduced that Europe was twice the length of the other continents (4.42). By falling back on the notion that there is an innate, if not always immediately discernible symmetry in nature, he effectively creates outer boundaries for the continents. These are, in fact, intrinsically unsatisfactory, since without knowledge of the eastern extent of either Asia or Europe, the world could stretch endlessly in that direction; on a superficial level, however, they appear to give a structure to the world. These boundaries are based on a notion of equal extent, at least in an east-west direction, rather than of a defined limit creating a firm edge to the land. Symmetry rather than Ocean or ἄπειρον determined their confines.

Von Fritz claimed that Herodotus struggled against the systematised form of geography in which his predecessors indulged, but in fact Herodotus himself produced just such a systematisation.[40] His statement of the relative sizes of the continents seems to have assumed a symmetrical configuration. He could not accept a division of the world which polarised Europe and Asia into symmetrical opposites, subsuming Libya into one landmass with Asia but still depicting Asia as separate from Europe; nor, since his greater knowledge of the world demonstrated that Europe was longer than either Asia or Africa, did he believe that all three continents were equal, as some had suggested. He thought that the manner in which his predecessors subdivided the world was absurd; the real proportions in the world

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[39]Anaximander, as we have seen, founded his ideas of the world and the universe on ideas of symmetry. The world was kept in suspension in the universe because all forces exerted upon it were equal. This meant that, among other things, everything in earth had to be equal. The continents, therefore, perfectly counterbalanced one another being the symmetrical opposites to one another. Ideas of symmetry were all-pervasive. A symmetry between Scythia and Egypt formed, for example, a basis of some of the medical doctrines of the author of the Hippocratic Treatise, *Airs, Waters, Places*. It is therefore not surprising that when ideas of symmetry were apparent in all the intellectual theories of his day, Herodotus should have found explanations of the world's structure in such theories.

[40]See Kurt von Fritz, "Herodotus and the Growth of Greek Historiography," *TAPA* 67 (1936) p.324.

were lost to the overarching theory of symmetry. Herodotus, however, puts in place a division of continents which in essence almost exactly resembled that which he had rejected, for it is still founded upon the idea of symmetry. He combines his greater knowledge about the extent and nature of Libya and Asia with a continued adherence to the doctrine of symmetry in nature, to form a concept of a world where Europe is equal in extent to the other two continents combined. The continents are proportionate.

To Herodotus, however, the division of the world into continents is essentially unimportant.[41] He is not so much concerned with the physical descriptions or names of the continents as a whole as with *kosmos*;[42] at the final analysis he is interested in the underlying structure and order rather than with the superficial disunity and division. He employs the language of a continental separation, frequently referring to Asia, Libya and Europe as massive units of land, greater than any single state or city. He even uses the Greek word ἤπειρος meaning continent or mainland, on various occasions where he clearly refers to the entire landmass and is not merely contrasting the mainland with other regions. Where he refers to continents, however, he regards them as part of a global scheme, not seeing each continent as a separate unit entire in itself. On virtually every occasion where he uses the word ἤπειρος clearly to mean an entire continent, he is referring to Asia, most of which had been subsumed by his time under the single rule of the Persians. Unlike the majority of his contemporaries, Herodotus emphasises the unity of the earth, glossing over the continental divisions which he feels were arbitrary.

He appears, at least in part, to have discussed the geography of the world in terms of continents because this was the conventional manner in which the Greeks thought of the world, and therefore was the most comprehensible means of discussing it. The idea of continents was so long-standing that although not present in Homer, by the time of Herodotus no-one could even tell whence the continents had derived their names.[43] Herodotus may have

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[41]Henry R. Immerwahr, "Aspects of Historical Causation in Herodotus," *TAPA* 87 (1956) p.260.

[42]Herodotus himself never uses the word *kosmos* to refer to any kind of ordering on a global scale. It is a word much more closely connected with the ideas of the early philosophers than with the Ionian historians and logographers. It is, however, the word that most accurately describes Herodotus' sense of world structure and order which was evident not only in the physical appearance of the world, but also in the behaviour of things within it.

[43]Homer does not speak of Europe or Asia, and though he mentions Libya by name, it is to refer to the fertile region to the west of Egypt. Jacob (above, n. 30) p.24; see *Odyssey*. 4.84 and 14.295); as Jacob points out "l'un des paradoxes des histoires d'Hérodote est d'être pour

challenged the concept of continents, but on occasion, he seems to have forgotten his objection to a continental division and to have been swept into the contemporary thought pattern which saw an absolute separation between the continents of Europe and Asia.[44] At other times, his use of the terms Asia, Europe and Libya may derive from the reports which were the result of his investigations; his chart-like depiction of the inner zones of Libya and his descriptive arrangement of the races of Asia have been attributed to Hecataeus, for example.[45] Above all, although the terms may have been inexact to his mind, implying a non-existent division between various great regions of the world, and an equally non-existent uniformity within these regions, they nevertheless provided a simpler and widely recognised means of locating people geographically.

Nevertheless, for the most part Herodotus adheres to his statement that the world was a single entity. As a result, even when he does refer to the continents, he is never clear where he thinks one ends and another begins. Since he does not at heart believe in them, he never clarifies his thoughts about their physical limits. The Mediterranean formed a definite barrier between Europe and Libya which even Herodotus could not overlook, but what acted as the boundary between Europe and Asia or between Asia and Libya is by no means as apparent. He rejects the theory that the Nile acted as the border between Libya and Asia, and the Phasis between Europe and Asia (4.45), complaining in the former case, that those who proposed such a division had not thought through the problem. They allotted the land to the west of the Nile to Libya and that to the east to Asia, but made no allowance for Egypt which they

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nous l'un des textes fondateurs de la géographie grecque de nous offrir la première vision structurée de l'oikoumene de la terre habitée telle qu'un Grec du Vième siècle peut se la representer et en même temps de nous donner l'impression que cette géographie et déjà un savoir fixe, transmis par un tradition. Le monde d'Hérodote est organisé, decoupé, nommé (p.54)."

[44]This manner of thinking seems to have been tied into the earlier division of continents to form a bipartite world, rather than the tripartite division to which Herodotus also refers. Asia is the landmass to which he most frequently applies the term ἤπειρος (4.91, 1.96, 2.102, 2.103, 5.49, 7.19, 8.100) although he also uses it in connection with Europe (3.134, 4.31, 4.118, 5.106, 7.201). In some cases the translation is not self-evident; for instance in 7.201, the term ἤπειρος may refer only to the Greek mainland and not to the entire continent of Europe. These instances cannot be used to support the argument that Herodotus belied his own words and saw the world as divided into continents, but not all of these references can be so disregarded. None of them, however, refers to Libya. Herodotus' descriptions were clearly being influenced by the idea of a world polarised between Europe and Asia, although for the most part he argued strenuously against such an idea.

[45]See J. Oliver Thomson, *History of Ancient Geography*. New York: Biblo and Tannen, 1965, first published 1948, p.68; Felix Jacoby, "Hekataios," *RE* 7.2 (1912) cols. 2727ff.

claimed to be restricted solely to the delta territory formed from the fluvial deposits of the Nile. Herodotus claims that if Egypt is indeed solely that region shaped by the Nile, it belongs to neither continent and so must be a continent in and of itself (2.15-2.16) - a suggestion which Herodotus thinks ludicrous, and which certainly does not suggest that the world is perfectly proportioned.[46] The Phasis seems to have posed a more perplexing problem, because although at one point he denies that it acted as a continental border (4.45), he does seem to have seen it as some sort of physical boundary. He states that the land to the west of the Persians, Medians, Sapires and Colchians was divided into two peninsulas, the more northern of which "beginning at the Phasis extends to the sea along the Propontus and the Hellespont as far as Sigeum of the Troad (4.38)."[47] The Phasis therefore seems to have been more closely connected to a regional division than to a continental one. Herodotus was a great proponent of the importance of interior boundaries; it was merely the great continental boundaries which seemed to divide the world into two or three distinct units, each capable of functioning more or less separately from the rest of the world, which played no part in his conception of world *kosmos*.

This idea of a *kosmos* involved "an a priori demand for an underlying unity in the world".[48] Although in general an advocate of *historia* rather than *theoria*, Herodotus was not wholly divorced from the ideas of his intellectual contemporaries who tended to adopt a more theoretical approach. In his ideas about world order, Herodotus lost his focus on investigation, and turned instead to unfounded theory. Like the majority of the Presocratic Ionian writers, he was an advocate of the idea that not merely symmetry, but also balance and polar opposition were fundamental aspects of the world. Like Heraclitus, for example, who stated that "what opposes unites"[49] Herodotus believed that a tension between the polar

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[46]Since the extent of ethnographically-determined countries and city-states was important to Herodotus he took considerable pains to demonstrate that Egypt was far more extensive than the territory encompassed by the Nile Delta; by contrast since the matter was a non-issue to him, he never addressed the problem of whether Egypt was a part of Asia or Libya. See Immerwahr, "Historical Causation," (above, n. 41) p.260.

[47]ἀρξαμένη παρατέταται ἐς θάλασσαν παρά τε τὸν Πόντον καὶ τὸν Ἑλλήσποντον μέχρι Σιγείου τοῦ Τρωικοῦ.

[48]G.S. Kirk, *Heraclitus, Cosmic Fragments*. Cambridge: Cambridge University Press, 1954, p.43. Kirk made this statement in reference to Heraclitus, but it is no less relevant for Herodotus.

[49]Heraclitus DK F8. The authenticity of the whole fragment is debated since the rest of the quotation which continues beyond what I have cited here is almost certainly a summary by Aristotle, *Nicomachean Ethics*, 8.2.1155b 4 and not the words of Heraclitus. T.M. Robinson,

opposites gave shape and unity to the world. Symmetry and opposition were apparent in all aspects of nature and through them a balance was maintained. Virtually all the intellectuals, from the cosmologists and natural philosophers to the medical writers, made constant appeals to the doctrine of opposites in their explanations of the world, the universe and natural phenomena in general.[50] Aristotle indeed claimed that all his predecessors focused on opposites.[51] Herodotus was no exception. For him, the majority of, if not all, natural phenomena on earth found their counterparts elsewhere in the world. The Nile was the mirror image of the Danube. Herodotus speaks with unusual confidence about the source of the Danube[52] and deduces the course of the Nile from the supposedly known course of the Danube - the one being the mirror image, the polar opposite of the other. Similarly, he

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Heraclitus, Fragments, A Text and Translation with a Commentary. Toronto: University of Toronto Press, 1987, pp.80-81. This portion, however, contains the Ionic word ἀντίξουν and so may well be a direct quote. While I have made my own translations for all other Greek quoted in this thesis, there is so much debate over the precise translation of each word of the Presocratic philosophers (particularly of Heraclitus and Anaximander - see for instance, Charles Kahn, *The Art and Thought of Heraclitus.* above, n. 7, and G.S. Kirk, *Heraclitus.* above, n.48) that I have used various translations rather than making my own. In this case I have used Robinson, p.15.

[50]G.E.R. Lloyd, *Polarity and Analogy, Two Types of Argumentation in Early Greek Thought.* Cambridge: Cambridge University Press, 1966, p.7.

[51]See Aristotle, *Metaph.* 1004b 29ff; 1075a 28 and 1087a 29f. The tendency to discuss and define in terms of opposites has on the whole been understudied. Cornford was one of the earliest to examine the Greeks use of this practice. F.M. Cornford, *From Religion to Philosophy, A Study in the Origins of Western Speculation.* New York: Harper and Row, 1957, pp.60ff. He claimed to find "that the prototype of all opposition or contrariety is the contrariety of sex" which became symbolised in religious representation. Burnet was moved to argue with him saying Cornford's argument was unnecessary, and that it obviously owed its origins to "the changes of seasons and the cycle of growth and decay" which is so much more evident in the Aegean lands than those further north. John Burnet, *Early Greek Philosophy.* 4th ed., London: Adam and Charles Black, 1952, first published 1892, p.8. Aside from these brief discussions scholars paid little attention to the general phenomenon of an emphasis on opposition, and much more to the attitudes of distinct philosophers such as Anaximander, Heraclitus, Parmenides and Pythagoras, until G.E.R Lloyd wrote his comprehensive book, *Polarity and Analogy, two Types of Argumentation in Early Greek Thought.* In it, he not only traces the evolution and role of these concepts of polar opposition and analogical explanation in early Greek thought, but also looks at other societies which developed similar ways of studying nature.

[52]As Pearson pointed out, it is rare for Herodotus to speak with such certainty about something for which he only had second-hand information. "[T]he confidence with which Herodotus speaks of the Danube does not suggest that the place of its source was unknown to the logographers; and it is extremely likely that Hecataeus spoke of it confidently as" ἀρξάμενος ἐκ Κελτῶν. " Lionel Pearson, "Herodotus on the Source of the Danube," *CP* 29 (1934) pp.329-330.

depicts Scythia and Egypt as the counterparts of one another.[53] The polar opposites were not restricted by continental boundaries - the Nile was in either Libya or Asia (or at the division thereof), the Danube was in Europe. Egypt belonged to the southern half of the world, Scythia to the northern half. Authors who emphasised continental division, separated the pairs of opposites; the underlying unity of the world which these pairs emphasised could be overlooked.

Pairs of opposites not only demonstrated the unity of the world, but acting within that unity, in a sense, gave shape to the world. Herodotus believed that cutting across the world from the western limit to the eastern was the equator.[54] This extended at least from the Taurus Mountains through Delphi and Sicily to the Pillars of Heracles. To the north of this line, the climate became increasingly colder, to the south it grew proportionately hotter.[55] Forming the northern boundary was a territory where it was thought that the air and land were filled with whirling feathers, which Herodotus believed were an indication, distorted by report, of the constant snow fall in the region (4.7, 4.31). The southern boundary was the infernal desert to the south of Libya and Egypt. At the extremes of the world the snow-filled air and uninhabitable cold of the north was the polar opposite of the bone-dry climate and unendurable heat of the south.[56]

Herodotus' thought here is very similar to that of Heraclitus. The two opposites of hot and cold cannot coexist in the same place because they will destroy one another. Rather, they strain away from one another so that the further one moves to the north, the colder the climate. Similarly as one moves further south away from the cold, the territory becomes ever hotter. These polar opposites, however, are connected so that "something which is being

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[53]The similarities between Egypt and Scythia in Herodotus' portrayal are too obvious to be ignored. The best study of the matter is that of Hartog in *The Mirror of Herodotus*. (above, n.33) passim. In his article "Herodotus the Tourist," James Redfield also gives an interesting point by point discussion of the polar opposition between the two. James Redfield, "Herodotus the Tourist," *CP* 80 (1985) pp.97-118, see especially pp.103-104. The perception of this mirror image was apparently not restricted to Herodotus, since the author of *Airs, Waters, Places* made a similar comparison.

[54]Herodotus never specifically mentioned an equator, but his descriptions of the world seem to indicate an underlying belief in a line which divided the world in two, to the north of which places had certain characteristics and to the south of which it had polar opposite ones. This equator was the axis which split Europe from Libya and Asia.

[55]Hartog (above, n.33) p.14.

[56]The similarity is even more apparent when Herodotus declares outright that the north is uninhabited on account of the cold (5.11), just as he states that the south was too hot for survival (2.31).

brought together and brought apart, which is in tune and out of tune: out of all things can be made a unity, and out of a unity, all things".[57] They strain away from each other, but are connected by the very fact that they are part of a pair of opposites. The poles of Herodotus' world acted like the two ends of the bow of Heraclitus. "The two ends of the bow, when it is strung, keep the string stretched by pulling its two ends simultaneously in opposite directions."[58] In the same way the inhabitable land was strung between the poles. Ionia and Greece, lying more or less on the equator, were at the point where the effect of the two poles is felt equally, and so had the most equitable climate in the world (1.142 and 3.106). If the climatic effects of one pole were to predominate over the other, the tension would cease to exist, the climates would no longer be in balance and the very character of everything in the world would alter. Everything which lay between these extremes existed in relation to the extremes, shaped by the tension between them. Although he perceives the symmetry between the continents as acting in an east-west direction, for the most part, Herodotus, when describing polar opposites which existed on a supra-regional scale, is interested only in those which existed in a north-south direction.[59] In these directions there was obvious polar

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[57]Heraclitus DK F10 (trans. Kirk, *Heraclitus*. above, n. 48, p.168) συμφερόμενον διαφερόμενον, συνᾷδον διᾷδον [καὶ] ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα.

[58]David Furley, *The Greek Cosmologists, Vol. 1: The Formation of the Atomic Theory and its Earliest Critics*. Cambridge: Cambridge University Press, 1987, p.33. The fragment referred to is no 51 which states "They do not understand how it agrees with itself while differing: a back-stretched connection, as of bow or lyre" (Furley, *The Greek Cosmologists*. Vol. 1, p.33). As with all Heraclitean fragments there is considerable discussion over what precisely Heraclitus meant, and indeed about which words he used. (See particularly Kirk, *Heraclitus*. (above, n.48) p.210-215; also Kahn's *The Art and Thought of Heraclitus* (above, n.7) p.198-200 for discussions of the precise wording). Kahn and Robinson both bring the musician and the archer into the equation, focusing on the opposite tensions between human and instrument, but this interpretation seems to be going far beyond the fragment. Kirk was more concerned with the possible implication that if one opposite outweighed another "then the unity and coherence of the world would cease, just as, if the tension in the bow string exceeds the tension in the arms, the whole complex is destroyed"(*KRS*, p.193). Certainly the same would be true for Herodotus' world. If one pole predominated over the other, there would be no median climate such as that of Ionia, but this is a purely philosophical question, which while possibly true of Heraclitus' fragment bears little relation to Herodotus' thinking, since he would not have indulged in such purely theoretical exploration. Furley's interpretation of this fragment as "an invitation to view the physical world as a set of bows or lyres, stretching the string between day and night, summer and winter, the hot and the cold" etc.(p.33), shows why I say that Herodotus world is similar to that of Heraclitus. This interpretation is very close to the way in which Herodotus perceived the world as strung and shaped between the opposite poles.

[59]See Romm, "Herodotus and Mythic Geography," (above, n.17) pp.110-111.

opposition between the hot and the cold environments - two of the fundamental opposites which he perceived as acting to create tension and give shape to the world. His assumption of north south symmetry is not explicitly stated, but is of fundamental importance; for him "space conforms to an ideal model of a complete whole."[60] This model abhorred a vacuum, so that while he was prepared to admit that there might be Hyperboreans, he was certain that if there were, then there must also be Hypernoteans.[61] If one extreme existed without its opposite, as people had proposed in the case of the Hyperboreans, the tight tension which drew the world together and created a framework for the inhabited world would be broken.

While the polar opposite *eremoi* created the framework which shaped the outer limits of the *oikoumene*, the natural tensions between these opposites are not the only means by which Herodotus defines the outer limits of the world: the framework manifested itself in various ways. The *eremoi* formed an outer boundary, but within this frame of uninhabitable territories, immediately abutting on the *eremoi* regions were the *eschatai* territories, the outermost lands of the *oikoumene*, whose peculiar characteristics and inhabitants acted as another limit.[62] It was to these regions that greater knowledge and investigation had restricted the reports of creatures of wonder and dread, confining the tales of the marvellous and the exotic to the outskirts of the world. These regions were more stable than anywhere else in the world: "the mythical people [were] unchanging and being unreachable [were] immune to outside influence."[63] The Cyclopes of Homer found their counterparts in the one-eyed Arimaspasians, but where Homer's Polyphemus had lived in the Mediterranean, Herodotus, following the reports of Aristeas, locates them in the *eschatiai*.[64]

Physical peculiarities frequently distinguished these people from the inhabitants of the *oikoumene* proper. The pygmies who lived beyond the beginnings of the desert to the

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[60]John Gould, *Herodotus*. London: Weidenfeld and Nicolson, 1989, p.90.

[61]John Gould (above, n. 60) 1989, p.90.

[62]"For a Greek city, *eschatia* meant the zone beyond the cultivated area; it was "the region at the end", land with a poor yield, difficult to use and then only intermittently, out toward the mountains or in the mountains which always marked the boundaries of a territory; it bordered on the frontier and merges with it, the region of mountains and forests which separates two city states, abandoned to the use of shepherds, woodcutters and charcoal burners." In describing these regions at the outer edges of the *oikoumene* as *eschatiai*, Herodotus shows them "as occupying in relation to the oikoumene a position analogous to that occupied by the frontier zone in relation to the city territory." Hartog (above, n. 33) p.13.

[63]Redfield (above, n. 53) p.109.

[64]Interestingly Thucydides ignored this recent trend and located them in Sicily (6.2).

south of Libya, were notable for their shortness (2.32);[65] the Ethiopians who inhabited the *eschatai* areas of the *oikoumene* "where the south inclines towards the setting sun" (3.114) were abnormally tall.[66] These same pygmies, while diminutive in size, were fantastic in power, being a race of sorcerers (2.32). The Ethiopians were almost more divine than human, of great height, beauty and longevity, eating together at the Table of the Sun, and drinking at a spring which gave them their long life (3.23). The Arimaspasians battled griffins in a fight for carefully guarded gold (4.13). These were people who belonged more to the world of myth or to the epic tales of a distant past than to the present and inhabitable world.

Other inhabitants of the fringes of the world were more normal in appearance, but as incomprehensible in custom to the Greeks. The Issedones, living to the north of the Scythians, the Padaeoi, inhabiting the eastern region of India, and the Massagetai, dwelling east of the Caspian (1.204), who all inhabited the outskirts of the known world, shared the

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[65]The pygmies are first mentioned by Homer in *Iliad.* 3.3-7, but there they retain the aspect of a purely mythical people. The only reference is that they waged war with the migrating cranes. Hecataeus expanded upon the Homeric story and described them as a race of farmers (*Fr.Gr. Hist.* F328a and b). By the time of Herodotus although their characteristics are still exaggerated, some real reports seem to have become equated with the entirely mythical people. Inhabiting the region of Africa where they are located, are indeed a race still given the name pygmy who are black and shorter than the majority of people. See W.W. How and J. Wells, *A Commentary on Herodotus with Introduction and Appendixes in Two Volumes.* Vol. 1(Books 1-4), Oxford: Clarendon Press, 1912, p.177, and Terrot Reavely Glover, *Herodotus.* Freeport, New York: Books for Libraries Press, 1969, first printed 1924, p.164. For the direction in which the Nasamonians must have travelled and the probable location of the pygmies see H.F. Tozer, *A History of Ancient Geography.* 2nd ed., M. Cary additional notes, New York: Biblo and Tannen, 1964, p.97, although Bunbury gives various reasons why it is almost impossible to determine the precise location of the pygmies whom the Nasamonians encountered. Bunbury (above, n.21) pp.269-271. Although some of the more fantastic elements of the Herodotean story must be discounted, such as the claim that the pygmies were all wizards, the majority of modern writers tend to believe that Herodotus' story was based on some sort of real journey. Fehling, however, simply sees the story as nothing more than a parallel for that which Herodotus tells about the north in 4.27. Detlev Fehling, *Herodotus and his "Sources", Citation, Invention and Narrative Art.* J.G. Howie trans., Classical and Medieval Texts, Papers and Monographs, Francis Cairns, Leeds: Francis Cairns, 1989, p.99.

[66]Homer referred to two sets of Ethiopians, one living in the eastern, and one in the western extremes of the world. (*Odyssey.* 1. 23-24). Thereafter "serious writers on geography tried to reconcile Homer and the geographical facts." See J. Y. Nadeau, "Ethiopians," *CQ* 64 (1976) p.339. The muddle which Homer created persists in Herodotus, who at one point states that the Ethiopians lived in this farthest south west region (4.197), and also discusses the Ethiopians of Asia (7.70). The semi-mythical beings of the extremes seem to be those of the west, whereas those of the east are not differentiated from other races to any great extent. Sometimes it is not apparent in Herodotus whether he himself is clear about the geographical situation of the Ethiopians. See Bunbury (above, n.21) p.73.

custom of eating their dead (4.26, 3.99, 1.216), while on the very edges of the northern desert lived the man-eaters, the most rude and savage of the people with whom Herodotus was acquainted,[67] who were outright cannibals (4.18). The idea of eating or being eaten by a fellow human was as abhorrent to the Greeks as it is to the majority of people nowadays. [68] By character or custom, such people provided a limit to the *oikoumene*. They belonged to a world of nightmare which few would wish or dare to visit.

The regions in which they lived were equally hostile. They sustained life, but the life they sustained was as extreme as the location of the region. In India, "the *eschate* of the *oikoumene* towards the east"(3.106.2)[69] ants grew the size of humans; in Arabia, "the *eschate* to the south of the *oikoumene*" (3.107)[70], flying snakes filled the air, whereas in the north in the region of the Arimaspasians, griffins guarded the gold.[71] These regions were, however, liberally endowed with all the finest products of the world. Indeed, Herodotus states that "just as the farthest lands of the *oikoumene* are allotted the best things, Greece in contrast is allotted much the most temperate seasons"(3.106).[72] In India, gold lay in the very sand; in the extreme west were the world's primary sources of amber and tin. Even the northern *eschatiai*, relatively poor in comparison with the wealth of India, held the deposits of gold which the

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[67]Bunbury (above, n. 21) p.192.

[68]See e.g. Hesiod, *Works and Days*. 276-279: "For the son of Cronos set out this *nomos* for humans, for the fish and beasts and winged birds he laid out that they eat one another since there is no justice among them, but he gave justice to humans." Τόνδε γὰρ ἀνθρώποισι νόμον διέταζε Κρονίων, / ἰχθύσι μὲν καὶ θηρσὶ καὶ οἰωνοῖς πετεηνοῖς / ἔσθειν ἀλλήλους, ἐπεὶ οὐ δίκη ἐστὶ μετ' αὐτοῖς · / ἀνθρώποισι δ' ἔδωκε δίκην. Hesiod obviously sees the devouring of one's own kind as the ultimate act of injustice. Cannibalism becomes a sign of barbarism. See Pericles Georges, *Barbarism and the Greek Experience from the Archaic Period to the Age of Xenophon*. Baltimore: Johns Hopkins University Press, 1994, p.123.

[69]τοῦτο μὲν γὰρ πρὸς τὴν ἠῶ ἐσχάτη τῶν οἰκεομένων ἡ Ἰνδικὴ ἐστι.

[70]πρὸς δ' αὖ μεσαμβρίης ἐσχάτη Ἀραβίη τῶν οἰκεομένων χωρέων ἐστί.

[71]It is interesting that while Herodotus does mention the Cynesii as the farthest west inhabitants of Europe he knew so little about them that in this region only did he not discuss the extremes in terms of the exotic and fabulous. While he did believe that tin and amber came from somewhere in the west of Europe, he did not believe in the Tin Isles. The *eschatai* lands in this region, as with so much of his study of western Europe were simply not discussed. The dispersal of his discussions of *eschatai* lands throughout the text, and his belief in symmetry, cause his audience not to notice that he neglected this region. One simply assumes, that it too had unusual creatures and a harsh environment.

[72]Αἱ δ' ἐσχατιαί κως τῆς οἰκεομένης τὰ κάλλιστα ἔλαχον, κατά περ ἡ Ἑλλὰς τὰς ὥρας πολλόν τι κάλλιστα κεκρημένας ἔλαχε.

griffins carefully guarded, and in the region of the Massagetai, bronze and gold were the everyday metals, while iron and silver were non-existent. That which the inner regions of the *oikoumene* held precious the Massagetai used for their spear-points and arrow-heads (1.216). The Arabian *eschate* in the extreme south of the *oikoumene* (3.107), although not rich in gold as were so many of the *eschatiai*, also had its share of wealth, acting as the principal source for the rare commodities of myrrh, frankincense, cadia, cinnamon and gum-mastich (3.107). Nature provided these marvels, but the humans could not claim them with ease. To do so they had to battle the monsters of their regions - the giant ants, the flying snakes, the gold-guarding griffins. These realms of "the fantastic, the threatening and the unreal at the extremities"[73] formed a ring of lands which circumscribed the *oikoumene*. Only humans who were to some degree marvellous themselves could survive in these regions. This ring of lands containing wealth and dangers beyond all knowledge, though not beyond imagination, acted as a further limit to the *oikoumene*.[74] It "was a marvellous place which serve[d] ultimately as a border to encompass the known world, and separate[d] it from the vast, unknowable expanse beyond."[75]

Jacob states about the *oikoumene* that "l'espace humaine est socialisé, regé par des pratiques d'échange, des festines, le rituel de l'hospitalité".[76] These rules and rituals barely pertained to the *eschatai* regions, which lay at the edge of human space. The Ethiopians, for example did not extend hospitality to the Fish-eaters who were acting as envoys for the Persian King. Instead, they mocked the Persian cultural practices, laughed at the deceit which lay behind their mission, and rejected their offerings (3.22). The practices of exchange and the rituals of hospitality had little meaning in such a region. What the people of the more central portions of the *oikoumene* held as valuable were worthless to the people of the extremes. Gold jewellery was seen as a sign of thraldom not of power (3.22). The very riches with which the extremes were so liberally endowed created an inversion, so that, to the

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[73]Gould (above, n. 60) p.94.

[74]As Flory points out Herodotus was uncertain about the truth of many of the phenomena which he describes at the fringes of earth (e.g. 3.116, 4.43, 5.10), but although he was doubtful about those particular phenomena he was certain that there should be incredible things at the edges of the earth. Stewart Flory, *The Archaic Smile of Herodotus*. Detroit: Wayne State University Press, 1987, p.78.

[75]Carter (above, n. 10) p.99.

[76]Jacob (above, n. 30) p.25.

inhabitants of such a region, they were not held to be of such great worth[77] although they were still of significant enough value that they braved much to gain possession of the riches of their land. To do so they were willing to battle beasts of scale and monstrosity seen nowhere else in the world. In these *eschatai* regions not only the creatures but also many humans were barely recognisable as such, some seeming virtually divine, others monstrous, yet others almost human yet with customs that were repulsive to the inhabitants of the *oikoumene*. It was as if people had, to a degree, to lose their own humanity in order to survive in *eschatai* areas. These *eschatiai* were in fact a limit to true human life, a limit to the *oikoumene*.

These limits were not precise. The one region was a place where direct information and investigation were possible, if not achieved; the other was the realm of the fabulous.[78] It is difficult to define where the *oikoumene* ended and the *eschatiai* began; the one blended into the other. Similarly, although the edges of Herodotus' *oikoumene* were clearly marked by water or more often by *eremos*, there was no absolute outer boundary to his world either. Unlike the image of the world described by all previous geographers, there were no true πείρατα to Herodotus' world, no sense of an inflexible bond or bound. Instead there was a differently conceived limit - a limit to any kind of inhabitation, beyond which the world faded into obscurity. By describing the size of the continents as proportional, Herodotus does define his world as finite, but he is not interested in the scale of the world beyond the inhabitable regions. He was no natural philosopher, posing insoluble questions about the world and the kosmos. He uses philosophical principles in describing the shape, limit and unity of the world, but his interest lies in the world of humans. This was finite and definable; its limits, for the most part, were discovered by investigation. The limits of *eremoi* were untransgressable and insurmountable, for no-one could survive in the true wastelands at the edges of the earth. Bordering on these were the inner boundaries of the *eschatiai*, which acted as limits to all that was normal. These were the boundaries which defined the extent of the *oikoumene*, the world of Herodotus' interest.

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[77] See Flory (above, n. 74) p.98.

[78] "Herodotus presents the world as consisting of three rings. In the middle lies the known world. Within it direct information can be obtained.... After that comes the fabulous world, which can only be known through indirect information. And finally there is the world of the unknown"; the *eremos* region. Fehling (above, n. 65) p.101.

Chapter 4.
Limit and Transgression: Humans and Geographical Boundaries in Herodotus' *Histories*

The boundaries of *eremos* and sea which Herodotus describes as the limits of the *oikoumene* acted to restrict all living creatures to the realm of the *oikoumene*. No human or animal could survive in these vast wastelands. These outer boundaries were not the only limits which Herodotus perceived for living beings, however. This chapter involves a study of how Herodotus, drawing on the type of ideas which interested the Milesian philosophers and Heraclitus, also places great emphasis on natural limits which could not be violated.[1] The limits of concern in this chapter are the geographically-determined limits of human territory. Herodotus perceived any crossing of such a boundary as a violation of nature which brought with it inevitable punishment.

Within the *oikoumene* were geographically-determined boundaries which confined humans and animals alike to their native areas. Unlike the outer limits of the *oikoumene* which could only be crossed by semi-divine and, in Herodotus' eyes, perhaps entirely mythical beings such as the Hyperboreans, these inner limits were transgressed with relative ease.[2] They had physical, geographical manifestations, taking the form of rivers, seas or *eremoi*, but also had a moral dimension. Although there was no crime in crossing out of one's native region in order to migrate to another area or to visit foreign countries, transgressing these boundaries out of desire for conquest was a hubristic act,[3] which, in Herodotus' view,

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[1]The idea that there were natural limits ordained by forces outside human control, and that violation of such limits was a hubristic act which would bring about retribution, was not an invention of the philosophical period but dated back to mythological times. The philosophers, however, extended this idea of limit to apply not merely to humans, but to all nature. The forces which enforced the observation of such limits throughout the universe were the natural laws. S. Sambursky, *The Physical World of the Greeks*. Merton Dagut, trans., London: Routledge and Kegan Paul, 1956, p.229.

[2]Herodotus was not just concerned with geographical limits in his *Histories*. "Everything on earth has its limits," Donald Lateiner, *The Historical Method of Herodotus*. Toronto: University of Toronto Press, 1989, p.129. A 70 year span, for instance, formed the limits to a human life for most people (although not the Ethiopians). (1.32.2 and 1.216.2). These limits were inviolable, defined by an inescapable natural law (Lateiner, *ibid.*). The geographical limits, however, could be broken, but a penalty was exacted for such a violation.

[3] Hubris has been given the sense of an act of excessive arrogance which manifested itself in a religious offence which deserved a divine punishment, but it is now generally acknowledged that such a definition is a result of a misreading of the sources, and that hubris was not essentially a religious act. See Kenneth Dover, *Greek Popular Morality in the Times of Plato and Aristotle*. Oxford: Blackwell, 1974, pp.47-50, Douglas M. MacDowell. "Hubris

invariably earned punishment.[4] Knowledge of the physical boundaries may have originated from investigative research, but the application of the concept of natural law which regulated the whole world and prevented the violation of such boundaries was derived from philosophical and religious thought, not from investigation. Drawing on such thought, Herodotus demonstrates that the transgression of the geographical boundaries involved a violation of the cosmic order which maintained everything in its proper place and compelled humans to recognise the limits of their own area or pay the penalty for violating the borders of their territory.[5]

These regional boundaries usually coincided with geopolitical limits, since Herodotus believed that each ethnic group belonged to its own region, the extent of which was defined by these very limits.[6] The Matieni, for instance were separated from the Phrygians by the

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in Athens," *G&R* 23 (1976) pp.14-31, and N.R.E Fisher, "Hubris and Dishonour I," *G&R* 23 (1976) pp.177-193 and "Hubris and Dishonour II," *G&R* 26 (1979) pp.31-47. Certainly as it applied to Herodotus it was not. Although he did occasionally discuss divine vengeance, he was far more concerned with human revenge. Jacqueline de Romilly, "La vengeance comme explication historique dans l'oeuvre d'Hérodote." *REG* 84 (1971) pp.314-336. At its simplest definition, it was "intentionally dishonouring behaviour" (N.R.E. Fisher. "Hubris," *OCD*[3]. pp.732-3). Aristotle defined it as "to act and to speak in ways which are shameful to the sufferer not in order to gain anything except in the fact that they occurred, but in order to gain pleasure". ἔστι γὰρ ὕβρις τὸ πράττειν καὶ λέγειν ἐφ' οἷς αἰσχύνη ἐστὶ τῷ πάσχοντ' μὴ ἵνα τι γίγνηται αὐτῷ ἄλλο ἢ ὅτι ἐγένετο, ἀλλ' ὅπως ἡσθῇ. (*Rhetoric* II, 1378b 23-30). Kenneth Dover, looking largely at its legal meaning, described it as "the violent contumacious treatment of a fellow-citizen as if he were a foreigner or a slave" (p.147). For Herodotus, however, it had a wider, although less easily defined meaning. MacDowell's definition of hubris as "having energy or power and misusing it self-indulgently" and always in a voluntary and bad manner seems the closest (p.21), usually it was connected with an idea of causing dishonour. For instance, all the efforts to bridge rivers were "treat[ing] with contempt powerful and divine natural forces" (Fisher, "Hubris and Dishonour II," p.37).

[4]See Henry R. Immerwahr, *Form and Thought in Herodotus*. Philological Monographs 23, APA, Cleveland: Press of Western Reserve University, 1966, passim, especially p.293 and Donald Lateiner, "Limit, Property and Transgression in the Histories of Herodotus." in *The Greek Historians, Literature and History, Papers presented to A.E. Raubitschek.* Stanford University, Saratoga, California: ANMA Libri and Co., 1985, passim; also Lateiner, *Historical Method.* (above, n. 2) chapter 6.

[5]Alan B. Lloyd. "Herodotus' account of Pharaonic History," *Historia* 37 (1988) p.28.

[6]In *Inventing the Barbarian*, Edith Hall claims that "ethnic boundaries are therefore social constructs not facts of nature, and as such are liable to be arbitrary and ambiguous. This is especially the case when, as in ancient Greece, an ethnic group's perceived boundaries are not coterminous with clear geopolitical limits." *Inventing the Barbarian, Greek Self-Definition through Tragedy.* Oxford: Clarendon Press, 1989, p.165. In Herodotus, however, ethnic boundaries were very much connected with natural, geopolitical ones. Each ethnic group belonged to a specific area. Although Herodotus did not always mention the

natural boundary of the Halys river (1.72);[7] the Exampaion spring or the Sacred Way[8] was "on the boundary of the land of the farming Scythians and the Alazons" (4.52);[9] the Triton river separated the Libyan Machyles from the Auseans (4.180), while the Sigynnae were the only inhabitants of the region to the north of the Danube, with territory reaching westwards approximately to the Eneti (5.9). The natural boundaries defined the extent of the ethnic groups, rather than the extent of the ethnic groups defining the placement of the boundaries.

These natural confines did not merely curtail the extent of various kinds of human expansion, but restricted all living creatures. There were boundaries for the European lions, for instance, which limited them to the region between the river Nestos which flowed through Abydos and the Achelos River which ran through Acarnania (7.126). Like humans, animals which defied these natural limits, suffered repercussions. The flying Arabian snakes were constantly attempting to escape from their native Arabia through a narrow mountain pass into Egypt. As regularly, the Egyptian ibis confronted them in the pass, and killed them (2.75.3).

Not all creatures were contained by the same limits. The territory of the dangerous flying snakes was restricted by these limits, whereas for hares and rabbits such limits were irrelevant. In a classic example of Herodotus' ability to disregard details, when he discusses the hares, he does not even mention the rivers which played so great a part in confining the lions to a relatively small area.. Herodotus explains that nature dictates that harmful, predatory animals such as lions and snakes be confined to restricted areas, whereas defenceless animals are able to roam the whole earth. In regard to animals, it was only when dangerous creatures such as the flying snakes attempted to disregard the boundaries of their territory, that the repercussions for defying natural limits became apparent. When they tried to cross out of their region through the mountain pass which formed their only means to penetrate into Egypt, the nature of the pass acted against them, causing them to be penned

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geographical limits which distinguished one ethnic group from another, he made it evident on the majority of occasions in which one people invaded another's territory, that they had to cross a natural boundary to do so. In other words the natural boundaries and the geopolitical ones were coterminous.

[7]The Halys, indeed, formed a general dividing line between the predominantly Semitic people east of the river (about whom Herodotus wrote very little) and the various ethnic groups to the west. W.W. How and J. Wells, *A Commentary on Herodotus, with Introduction and Appendixes*. Vol. 1, Oxford: Clarendon Press, 1909, Appendix 1.1.

[8]Herodotus claimed that Exampaion was the Scythian for the Sacred Way (4.52).

[9]ἔστι δὲ ἡ κρήνη αὕτη ἐν οὔροισι χώρης τῆς τε ἀροτήρων Σκυθέων καὶ Ἀλιζώνων.

into a narrow area where the ibis could easily kill them.

While the cases of the lions and the flying snakes clearly demonstrate that Herodotus believed that the laws of natural limit were universal rules applying to both humans and animals[10], it was rare for animals to attempt to defy the territorial limits which enclosed them. When they did so, however, punishment was instantaneous; the snakes never succeeded in invading Egypt, for example. Retribution for violation of a natural limit was not necessarily so immediate in the human world, but was nonetheless the inevitable consequence of every blatant act of aggression which involved such a transgression.

In the *Histories* humans are constantly embarking upon "unwise imperial adventures".[11] Raaflaub claims that Herodotus' concept of history was "based on the pattern of rise and fall, growth and shrinking of cities, peoples and rulers"[12], but while this growth and fall is an inescapable aspect of the *Histories*, it is not in itself the basis of any pattern in the *Histories*. Rather, it is the inevitable outcome of the defiance of limit which accompanies imperialist endeavours.

The most striking physical boundaries which delineate the extent to which a race could expand, and which mark the beginning of hubristic imperialism are the rivers.[13] If people merely crossed rivers within their own territory, Herodotus does not mention them, but on every occasion where he records someone crossing a river in conquest, it is a sign of

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[10]Donald Lateiner, *Historical Method.* (above, n. 2) p.192.

[11]Donald Lateiner, *Historical Method.* (above, n. 2) p.131,; as Lateiner points out the folly of these ventures was frequently marked out by the word διαβαίνειν, which indicated transgression. See also J. Enoch Powell, *A Lexicon to Herodotus.* 2nd ed., Hildesheim: Georg Olms Verlagsbuchhandlung, 1960, p.86.

[12]K. Raaflaub. "Herodotus, Political Thought and the Meaning of History," *Arethusa* 20/Nos.1 and 2 (Spring and Fall 1987) p.234.

[13]See Immerwahr, *Form and Thought.* 1966, passim, especially (above, n. 4) pp.81-82, also François Hartog, *The Mirror of Herodotus, The Representation of the Other in the Writing of History.* University of California Press. Berkeley. 1988 passim, and Pascal Payen, "Comment résister à la conquête, temps, espace et récit chez Hérodote," *REG* 108 (1995) pp.308-338. Flory, however, although at one point he seems to support this argument (pp.55-56) elsewhere disagrees and argues, for example, for the wisdom of Cyrus in crossing the Araxes against the Massagetae. Stewart Flory, *The Archaic Smile of Herodotus.* Detroit: Wayne State University Press, 1987. pp.97-98. Rivers were also obvious limits in that since Hesiodic times at least, they were seen as holy, and no-one would cross a river without sacrificing to it. See Martin P. Nilsson. *Greek Folk Religion.* 2nd ed. Gloucester Massachusetts: Harper Torchbook, 1961, first published 1940, pp.10-11; and Yi-Fu Tuan, "Geopiety: a Theme in Man's Attachment to Nature and to Place," in *Geographies of the Mind; Essays in Historical Geosophy.* David Lowenthal and Martyn J. Bowden eds., New York: Oxford University Press, 1976, p.17.

the invasion's impending failure. Near the outset of the *Histories*, Herodotus introduces the tale of Croesus, the Lydian king, a happy and powerful man whose wealth was of fabulous proportions. At the beginning of the Croesus *logos*, Herodotus explains that the Lydian king ruled all nations west of the Halys river (1.6). Indeed, Herodotus states in so many words that the boundary of the Median and the Lydian empire was the Halys river (1.72).[14] Confident in his own power, once he had consulted the Delphic oracle where he learnt that if he attacked the Persian empire a great empire would fall, Croesus brought about the destruction of his own kingdom. Convinced that he would defeat the Persians and destroy their empire, he crossed the Halys river to fight Cyrus (1.75-76).[15] By describing his crossing, Herodotus gives a clear indication to the reader that Croesus would fail. Croesus suffered immediate defeat, and destroyed not the Persian, but his own empire.

By crossing the Halys river, Croesus was transgressing the natural boundaries, and was ignoring the natural limits to his power. It is clear that Herodotus believed that Lydian overlordship could last only as far as the river; once Croesus crossed this physical boundary in an act of aggression, he forfeited his right to rule the area. Thereafter, since through Lydian error, not through Persian aggression, the Lydian empire had ceased to exist and had fallen under Persian domination, the Halys River no longer acted as a boundary.[16] Herodotus mentions the river on only three other occasions, the most important of which was just before

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[14]Just as Croesus had united all Asia west of the Halys under one rule, the Median King Cyaxares had united all that to the east (1.103).The Medes came under Persian rule with Cyrus (1.127-129); previously the Persians were under Median control, but to all intents and purposes, the original boundaries of the two empires were co-extensive, although the Persians extended their rule massively beyond the original core area of the Median empire. For further study on the Median empire, and the Persian take-over and steady expansion until the defeat by the Greeks in the Persian wars, see A.R. Burn, *Persia and The Greeks, the Defence of the West, c.546-478*. 2nd ed. with a Postscript by D. M. Lewis, London: Gerald Duckworth and Co. Ltd., 1984.

[15]Herodotus draws attention to the violation of this natural limit by describing the two possible ways by which Croesus brought his army to the far side of the river. The version which Herodotus finds more credible was that he crossed by means of existing bridges; the other possibility was that Thales diverted the river and enabled the army to reach the other side (1.75). In either case, Croesus was attempting to exert human authority over nature; without human constructions of either dams or bridges, they could not have crossed over. His was an hubristic act which brought with it inevitable punishment.

[16]It is interesting to note that Herodotus recorded neither the ethnographical tale of any nation once it had been conquered, nor the natural limits which had acted to make it a separate nation. The limits were not important when separated from the ethnography. The ethnography no longer existed once a nation ceased to be autonomous. Immerwahr, *Form and Thought*. (above, n. 4) p.34.

Xerxes' attempted invasion of Greece (7.26).[17] It was the first sign that the invasion would be calamitous.

The functioning of natural limits as boundaries is most apparent in the events of Persian history.[18] Cyrus gained control of all Asia because he was not the aggressor in the Lydian campaign, yet he forfeited his own life and weakened his empire when he ventured beyond the geographical boundaries of his own kingdom and attacked the Massagetae. The story of his life leading up to the attack on these people was marked by an ever-increasing hubris, and an equal disregard of nature. His disrespect of nature was first apparent when he irrationally decided to re-order nature to his own liking and disperse the Gyndes river into 360 channels simply because he wished to punish it for drowning one of his horses when he had attempted to cross it (1.189).[19] After not merely defying, but indeed destroying this border, he then attacked Babylon, once again ignoring nature's design and rechanneling a river for his own ends (1.191).[20] Shortly thereafter he built bridges and pontoons to cross the Araxes, one of the greatest rivers, into the territory of the Massagetae (1.201-1.208). While in this region he dreamt about Darius, the oldest son of his follower, Hystaspes, having wings which overshadowed Europe and Asia (1.209-210). Cyrus misinterpreted this dream thinking it meant that Darius was conspiring against him, but, in fact, it indicated that he, Cyrus, had oversepped his mark and that the god intended him to die in the European territory which he

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[17]He also mentioned it in 5.52 as part of a general topographical description of the region and again at 5.102, when stating that those who lived on the Lydian side of the Halys rallied to fight the Ionians.

[18]It is interesting that in almost all of these cases the violation of the limits involved a transgression of rivers, and yet Herodotus describes the Persians as extremely reverential of rivers - so reverential that they would not even wash hands therein (1.138). In crossing these boundaries their pride had truly become so extreme that it led them to rash and hubristic acts.

[19]As MacDowell points out, the horse had itself been hubristic in trying to enter the water and had paid the penalty for it (above, n.3) p.15.

[20] Cyrus' redirection of the Euphrates, which enabled him to capture Babylon did not bring him disaster, but neither did it bring him advantage. It was part of a cycle of events. The Babylonians under Nitocris had themselves abused natural design, gaining power and advantage by diverting the Euphrates, controlling both its flow and its course (1.186). The river, part of their very source of power, proved also to be their downfall, for the Persians by adopting the same engineering practices as the Babylonians, succeeded in redirecting the river, channelling it away from the city and entering Babylon along its former bed. In this way they seized the city (1.191). Their advantage was only temporary, however, for they in turn lost the city, as Herodotus indicates immediately thereafter, stating that they had to recapture it. See Payen (above, n. 13) p.330 for a discussion of how Nitocris' actions taught Cyrus how to destroy her city.

had invaded, while Darius who had remained in Asia, would gain control of the Persian empire. Cyrus' hubristic act had brought about his own defeat.

Similarly, Darius' crossing of the Danube indicated that his attempt to subdue the Scythians would end in disaster (4.98 - 4.142). He bridged the Danube and pursued the Scythians throughout the latter's territory. His bridging of the Danube demonstrated his foolhardy self-confidence, for he was trying to master nature and provide a stable foothold over water.[21] His army paid the penalty, failing completely in conquering Scythia, and only escaping back across the Danube with the help of the Ionians who ferried them and assisted in rebuilding their bridge.[22]

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[21]The creation of a bridge was the ultimate sign of human arrogance, for it indicated that people were trying to control nature and create solid land where there was none. Where there was a bridge there was inevitable transgression. "To transgress means through hubris to step outside one's own space and enter a foreign one, and the material sign of such transgression is the construction of a bridge." Hartog (above n. 13) p.331. Darius believed his bridge to be a πόρος (a way), but instead it merely led to the ἀπορία (tracklessness) which was Scythia's main advantage. It was ultimately only a πόρος for escape after humiliating defeat (*ibid.* pp.56-58, 198).

[22]The Ionians are an interesting case where geopolitical limits and ethnographic ones did not appear to coincide, but in fact came to do so. The Ionians were, after all, Greek, but they came under first Lydian, then Persian control. On occasion, such as in the notorious Ionian rebellion of 499 BC they evinced the peculiarly Greek characteristic, namely the overwhelming desire for freedom which contrasted strongly with the willing submission to tyrannical authority which was a defining trait of Asiatic people, but the Ionians' loyalties were changing. Rather than rebelling against Persian authority they made a choice on this occasion, not to destroy the Persians, but to ally with them. Their loyalties were becoming more Persian and less Greek. Although they were themselves Greek, they were falling under different geographical influences, which affected not only their racial characteristics, but also their national loyalties. Herodotus makes apparent the dependent rather than the independent nature of the Ionians from the outset. He describes the conquest of the Ionians by Croesus as laying the groundwork for the hostility between the Greeks and the various Asian races such as the Lydians, the Medes and most importantly, the Persians. This conquest, however, involved no violation of natural limits. The Ionians were Greek by origin, but over time, they became increasingly like the peoples in whose vicinity they had settled. They became a soft and unwarlike people among whose characteristics was the acceptance of submission. If Croesus had carried out his plan and attacked the Greek islanders, he would, as his own advisors foresaw have suffered defeat. Implicit in such an attack was the violation of a natural boundary, in this case, the boundary of the sea. While he was unable to see the folly of an attack on Persia, he accepted the advice not to attack the Greek islanders, and instead made friends with them (1.27). For a discussion of the defining characteristics of Greeks and Asiatics mentioned above see J.A.S. Evans, "After the Battle, a Review of *Athens and Persia in the Fifth Century BC: A Study in Cultural Receptivity* and of *History and Memory in Ancient Greece*." *The Literary Review of Canada* 7, No.1 (January/February, 1998), pp. 24-25. See also A. Momigliano, "The Fault of the Greeks," in *Essays in Ancient and Modern Historiography*. Oxford: Blackwell, 1977, p.18 who discusses how what emerges from all

Rivers are not the only physical boundary which Herodotus uses to demonstrate the limits to which a power might safely expand. The desert which lay between Africa and Asia performed a similar function.[23] When Cambyses, in an hubristic desire to overextend his empire and conquer Egypt, traversed this desert "in order to attack" (ὡς συμβαλέοντες), he was destined to fail (3.11). The tale of the desert is a "river story in reverse".[24] Instead of an abundance of water creating a barrier, the lack thereof defined the limit of Persian expansion.[25] The desert provided an obstacle which humans should not cross, and provoked disaster when transgressed. Likewise, when Xerxes crossed the Hellespont, he too was trying to break the natural boundaries which dictated the limits of the territory that was his to rule, and so he too could not succeed. Indeed, he even declared "we will show the Persian land to be equal in its borders to the ether of Zeus, for the sun will look down on no land which is bordering on us" (7.8.2);[26] he wished to make it so that "[t]here would be no limits to the land of the Great King, and hence, we may note, no boundaries left to transgress".[27] He believed that with a bridge of boats he could make a stable crossing over water for his soldiers whose superiority in numbers he believed would prevail over any Greek efforts at resistance. Instead, his first bridge itself proved unstable (7.34), which prompted him to a remarkable display of anger. So much had his quest for victory against the Greeks overwhelmed all other tempering aspects of his character that he flogged the Hellespont for daring to flout him. His arrogance was supreme. Although he succeeded in crossing on the second attempt, his venture against the Greeks culminated in humiliating and total defeat. The sea indeed which Xerxes had so abused, played a part in the Greek victory, for a storm

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Herodotus' studies of the various Asiatic peoples is the Greek love of freedom. For more on the low-standing of the Asiatic Greeks (whose effeminacy was seen as due to their climate) among the other Greeks, see John Alty, "Dorians and Ionians," *JHS* 102 (1982) pp. 1-14, and for a brief look at how the term Ionian was applied to all Asiatic Greeks, although these Greeks were obviously very disparate and not a single unit, see R.J. Seager and C.J. Tuplin. "The Freedom of the Greeks of Asia: on the Origins of a Concept and the Creation of a Slogan," *JHS* 100 (1980) pp.141-155.

[23]Immerwahr, *Form and Thought*. (above, n. 4) p.94.

[24]Immerwahr, "Aspects of Historical Causation in Herodotus," *TAPA* 87 (1956) p.260, n. 38.

[25]Flory, (above, n. 13) p.51.

[26]γῆν τὴν Περσίδα ἀποδέξομεν τῷ Διὸς αἰθέρι ὁμουρέουσαν. οὐ γὰρ δὴ χώρην γε οὐδεμίαν κατόψεται ἥλιος ὁμουρέουσαν τῇ ἡμετέρῃ.

[27]J.A.S. Evans. *Herodotus Explorer of the Past, Three Essays*. Princeton: Princeton University Press, 1991, p.12.

reduced the Persian fleet to equality with the Greek (8.12). Nature had its own revenge.[28]

While the examples of the Persians being defeated on every occasion that they tried to extend their empire beyond the natural boundaries of Asia provide the most striking example of the violation of limits acting as a cause for historical events,[29] all who transgressed such a limit experienced retribution. The Spartans under Cleomenes, convinced by the oracle that they would conquer Argos, wished to cross the river Erasinus into Argive territory. When Cleomenes had sacrificed twice in an attempt to find good omens for his crossing, and had still failed to do so, rather than ignore the warnings entirely, he tried simply to bypass the river and sail into Argos instead (6.76). The sea, just as much as the river, was a natural boundary which separated Argive from Spartan territory, however. Cleomenes realised ultimately that he was not destined to conquer the city of Argos and returned home (6.82). Here, as in so many other instances in the *Histories*, the geographical features of rivers and seas marked the limits of separate ethnic groups. Cleomenes' failure was inevitable.

Unlike many of his contemporaries, Herodotus never explicitly states that violation of physical limits led to disaster: he merely makes it implicitly apparent.[30] The closest he comes to making such a statement outright is when he describes how Mardonius and the Greek army were arrayed against one another on either side of the River Asopus outside Plataea. For both armies the omens augured well if they stayed where they were and defended themselves, but poorly if they were the first to cross the river (9.36-9.37). Eventually Mardonius crossed the river in attack, and, predictably, lost the battle. Herodotus laid the emphasis on the aggressive transgression of the limit and the attack rather than on the reasons behind this. Mardonius could no longer play the waiting game, since he had run short of supplies, but Herodotus did not mention this detail in its proper place, for it detracted from

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[28]It is interesting that in Aeschylus' *Persae* the further fording of the Strymon brought about its own revenge, with the disastrous crossing serving "as a punishment for Xerxes earlier transgression," (N.M. Horsfall, "Aeschylus and the Strymon," *Hermes* 102 [1974] p.504), but in the *Histories* it brings about no separate punishment. The bridging of the river, like Cyrus' destruction of the Gyndes was just part of a series of violations of natural limits which brought about the subsequent total defeat of the Persian army. It is also interesting that the same commander who had ordered his people to whip the Hellespont, should have recovered his respect for nature, at least to an extent, and attempted to propitiate the Strymon by sacrificing to it (7.113).

[29]Lateiner, *Historical Method.* (above, n. 2) p.130.

[30]Immerwahr, *Form and Thought.* (above, n. 13) p.325.

Mardonius' desire for conquest and his blatant disregard of geographical limits.[31] "The river motif [was] not central to the defeat of Mardonius, but initiate[d] it."[32]

Since there were natural limits to every ethnographic region, to cross out of their native territory humans had to attempt to exert their own superiority over nature. They had to create bridges over rivers, and bring water into deserts. Whenever people crossed over rivers, wastelands, deserts or seas, they were demonstrating that they were unwilling to accept the geographical boundaries which restricted them to a given area and instead were trying to conquer not only other peoples, but indeed nature itself. They made hubristic attempts to overcome the restrictions forced upon them by nature. Inevitably, however, they failed, since humans are part of nature, not masters of it. Occasionally, humans prevailed over nature, but the effect of their victories was transient. For instance, although the Egyptian canals proved advantageous in providing water to areas which would otherwise have been uncultivatable, they also had drawbacks, for Herodotus records that after they were built, Egypt ceased to be easy to traverse. Although the canals made Egypt similar to Scythia in appearance, the rivers in the latter region did not seem to have the same effect (4.46-4.47), perhaps because, unlike the canals, they occurred naturally. Similarly, Nitocris' rechanneling of the Euphrates brought short-term benefit to Babylon, but in the long-term also had disadvantages, providing the Persians with the means to invade the city. No victory over nature could be complete.

Humans disregarded nature not merely by trying to reshape and remove or defy the geographical boundaries, but also by trying to create their own non-natural boundaries. While breaking the natural limits doomed any enterprise, creating unnatural ones was also an omen of catastrophe.[33] On every occasion where Herodotus describes people as trusting in a τεῖχος to save them, calamity occurred. The Greeks built a wall at Thermopylae to help them in their defence of the narrow pass, but when the Greeks were betrayed and the Persians shown a secret path for circumventing the Greek barricade, the wall hindered rather

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[31]Immerwahr, "Historical Causation," (above, n. 24) p.252.

[32]Immerwahr, *Form and Thought*. (above, n. 13) p.294.

[33]Gould disagrees with this idea, and indeed goes so far as to say that buildings were "unambiguously marks of what humans can do and evoke no sense in Herodotus that any limit set for human achievements is being transgressed" just as with the artificial waterways and lakes of Egypt. John Gould. *Herodotus*. London: Weidenfeld and Nicolson, 1989, p.106. As we have seen the Egyptian canals were not an unambiguous success, and the consistency with which every wall is violated in Herodotus' *Histories* seems more than mere accident. Herodotus believed that the attempt to set one's own limits was as offensive as the desire to defy natural ones.

than helped, for the wall prevented the Greeks from seeing the Persians about to attack from the rear. In the same way, no city wall saved a city. Ephesus, Babylon, Memphis all fell. The man-made artificial boundary between Thebes and Plataea was much less likely to be secure than the one set at the river Asopus (6.108).[34] Human walls worked against nature, not with it, for they created obstacles which did not naturally exist.

The most notorious example of mistaken trust in city walls occurred in Athens. The oracle had proclaimed:

> everything will be lost as much as the borders of Kekrops hold within them, and the valleys of divine Kithaeron, far-seeing Zeus gives the wooden walls alone to the Trito-born to be untaken to save you and your children. Do not await, motionless the great army of cavalry and infantry coming from the continent, but retreat turning your back; you will still sometime stand opposite them (7.141.3-4).[35]

Many who ignored the latter half of this prophecy with its advice to retreat and who argued that the oracle implied that protection should be sought behind the city walls, imprisoned themselves in the Acropolis, and refused to abandon the city (8.51). Themistocles, however, correctly interpreted the wooden walls as the navy rather than the city walls (7.143). Those who believed him, and followed his advice, were saved, while the others perished (8.52). The wooden walls which he proposed co-operated with nature. Unlike the stationary walls of the city, the fleet could only go where the sea and the wind permitted.

The only occasions where human walls stood firm were when they reinforced natural boundaries, as on islands. For instance, the Spartans failed to conquer the Samians (3.54), although they laid long siege to the city walls. It is possible that in Herodotus' eyes, such a failure occurred because the Spartans had already defied the natural boundaries by crossing the sea to attack the city. Certainly, in cases where an island was successfully seized, such as Lemnos, Herodotus does not mention the word τεῖχος. Herodotus also does not record any destruction of the Geloni. Their walls, however, like those on the islands, also seem to have marked a natural distinction, for the walls separated the Greek Geloni from the Scythian Budini (4.108). They followed the line of geopolitical, ethnographical boundaries which

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[34]Lateiner, *Historical Method.* (above n. 2) p.130.

[35]τῶν ἄλλων γὰρ ἁλισκομένων ὅσα Κέκροπος οὖρος / ἐντὸς ἔχει κευθμών τε Κιθαιρῶνος ζαθέοιο, / τεῖχος Τριτογενεῖ ξύλινον διδοῖ εὐρύοπα Ζεὺς / μοῦνον ἀπόρθητον τελέθειν, τὸ σὲ τέκνα τ' ὀνήσει. / μηδὲ σύ γ' ἱπποσύνην τε μένειν καὶ πεζὸν ἰόντα / πολλὸν ἀπ' ἠπείρου στρατὸν ἥσυχος, ἀλλ' ὑποχωρεῖν / νῶτον ἐπιστρέψας · ἔτι τοί ποτε κἀντίος ἔσσῃ.

were fundamental to Herodotus' thought.

While other authors do not seem to have placed the same emphasis on the need for humans to follow only the natural confines and not to construct their own barriers in an attempt to create artificial ethnographic limits, Herodotus was not alone in commenting on the general importance of adhering to natural limits. Many writers in the century preceding Herodotus, from philosophers to tragedians, discussed the concepts of boundary and transgression.[36] In the *Persae*, Aeschylus clearly demonstrates his unspoken belief that Xerxes was doomed, not merely because of his general hubristic arrogance, but at least in part because this arrogance led him to attempt to defy the natural boundaries of Asia and yoke together the Hellespont.[37] He, like Herodotus, saw the transgression of boundary as having repercussions on human history. Xerxes broke a geographical limit and as a result suffered humiliating defeat. Other more philosophical writers such as Heraclitus, Parmenides and Anaximander spoke in more general terms, believing that in the world of physical nature there existed firm boundaries, and that some form of justice existed to right wrongs and restore balance when these limits were violated.[38]

Heraclitus provided the most obvious statement concerning the violation of limit when he declared that "the sun will not overstep his measures; if he does, the Erinyes, the minions of Justice will find him out" (DK F94).[39] Similarly, Parmenides argued that "strong

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[36]Lateiner, *Historical Method.* (above, n. 2) p.127.

[37]J.R. Wilson. "Territoriality and its Violation in the *Persians* of Aeschylus," in *Greek Tragedy and its Legacy, Essays Presented to D.J. Conacher.* Calgary: University of Calgary Press, 1986. See also Fisher, "Hubris and Dishonour II," (above, n. 3) p.37.

[38]Hermann Fränkel, *Early Greek Poetry and Philosophy, a History of Greek Epic, Lyric and Prose to the Middle of the Fifth Century.* Moses Hadas and James Willis trans., Oxford: Blackwell, 1975, p.380.

[39]'Ηλιος γὰρ οὐχ ὑπερβήσεται μέτρα · εἰ δὲ μή, 'Ερινύες μιν Δίκης ἐπίκουροι ἐξευρήσουσιν. I have used G.S. Kirk's translation on p.284 of *Heraclitus the Cosmic Fragments.* Cambridge: Cambridge University Press, 1954. Kirk makes a good discussion of the kind of penalty the sun might suffer for overstepping his measures: for example, if he stayed too long and too close in summer he would be driven further back and away in winter, (p.287). J. Burnet simply tied this into Heraclitus' general idea of the importance of justice and strife. J. Burnet, *Greek Philosophy, Thales to Plato.* London: Macmillan and Co. Ltd. London, 1932, p.61, but it is more than that; as Jonathan Barnes points out "[t]he natural laws of celestial motion are backed by sanctions" (Barnes. *Thales to Zeno.* The Arguments of the Pre-Socratic Philosophers. Vol. 1, London: Routledge and Kegan, 1979, p.131). There are limits set for the sun both in space and in time, and it cannot overstep these limits without impunity any more than Herodotus' soldiers could venture outside their own territory in conquest, without suffering repercussions. The measures here naturally have a wider meaning than the limits or boundaries with which we have been concerned with Herodotus -

Necessity holds it within the bonds of limit, which keeps it in on every side" (DK F8, 30-31).[40] Anaximander, while not so explicitly mentioning the idea of limits, stated that the elements[41] "pay penalty to each other for their injustice according to the assessment of time" (DK F2).[42] This injustice is the injustice of one of a pair of opposites, overstepping its limits and encroaching upon the other, and for this a penalty is exacted proportionate to the offence.

Anaximander's statement is possibly the "first expression of a self-regulating cosmological order" where justice and retribution are not merely at the "whim of the gods but a cosmic pattern guaranteed by the rule of law".[43] But while he might well be the first, others followed in postulating a universe governed by some form of justice whose laws and punishments were inevitable, forming a stark contrast with those of the anthropomorphic,

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the sun cannot march outside the boundaries of its route, but it also must pursue its natural course across the sky. It cannot overstep its measures by deciding not to march, just as it cannot overstep its measures by deciding to go outside its defined path. W.K.C. Guthrie, *The Earlier Presocratics and the Pythagoreans*. A History of Greek Philosophy, Vol. 1, Cambridge: Cambridge University Press, 1962, p.465. Robinson lays emphasis on the predictability of the sun's course as a result, but he does also note that it is predictable because the world is an ordered cosmos, and that the regulations of this cosmos should not be broken. T.M. Robinson. *Heraclitus. Fragments, a Text and Translation with a Commentary*. Toronto: University of Toronto Press, 1987, p.144. Kahn is the most useful in examining this fragment beyond its specific reference, demonstrating how it referred to general situations of a violation of justice which constituted a violation of the world order. Charles H. Kahn, *The Art and Thought of Heraclitus, an Edition of the Fragments with Translation and Commentary*. Cambridge: Cambridge University Press, 1979, p.184.

[40]κρατερὴ γὰρ 'Ανάγκη πείρατος ἐν δεσμοῖσιν ἔχει, τό μιν ἀμφίς ἐέργει. Translation from *KRS*. p.251. Within the context of this quote, which is discussing the perpetual changelessness of what is, the limits here seem to be spatial limits. See *KRS*, p.251-253 and Barnes, (above, n. 39) p.220, although others have taken it metaphorically - see discussion in Barnes p.203. More important, however, is that Parmenides, like Heraclitus, believed something enforced adherence to these limits - Necessity, like Heraclitus' justice, compelled it.

[41]There is some controversy about whether Anaximander meant that the elements gave reparation, or whether it was the "coming-to-be" and the "destruction" of all things from and into the ἄπειρον which in fact paid reparation. I have followed Kahn's interpretation from Charles H. Kahn, *Anaximander and the Origins of Greek Cosmology*, New York: Columbia University Press, 1960, chapter 3. Kirk seems to tend to the opposite one (*KRS*. p.118-119). Whichever Anaximander intended, however, is not particularly relevant for our purposes.

[42]διδόναι γὰρ αὐτὰ δίκην καὶ τίσιν ἀλλήλοις τῆς ἀδικίας κατὰ τὴν τοῦ χρόνου τάξιν'. *KRS*. p.118.

[43]G.E.R.Lloyd, *Polarity and Analogy, Two Types of Argumentation in Early Greek Thought*. Cambridge: Cambridge University Press, 1966, p.213.

Homeric gods who held mankind at their mercy, aiding or punishing them as they pleased.[44] In his conception of punishment for violation of limit, Herodotus was following just such a train of belief as these earlier Presocratic philosophers had proposed.

Anaximander in general believed that there was "strife among the elements and that a just order [was] nevertheless preserved"; Heraclitus subsequently held a similar belief, differing only in that he thought that order was a part of strife rather than existing despite it.[45] Both, however, thought that order was maintained in some manner. It was this same kind of natural order that Herodotus saw as threatened by the transgression of limits and as maintained by some force which brought retribution for their violation. Where his predecessors spoke in terms of *dike* (justice), or in the case of Parmenides ἀνάγκη (necessity), however, Herodotus rarely directly discusses the agency which he saw as maintaining world order. For him necessity never has the sense in which Parmenides used it, and on only one occasion does he use *dike* to imply cosmic justice. He states that "shining justice shall quench powerful Koros, the son of hubris, which rages terribly, thinking to over-persuade all things" (8.77.1).[46] Since this is part of an oracle, however, it cannot necessarily be held to contain his own beliefs, although he does introduce it by claiming that he believes there is truth in prophecies. On every other occasion, if compelled to discuss the manner in which the world was regulated, Herodotus refers to a divine agency (e.g. 1.174; 3.108; 8.94).

Here too, however, Herodotus' thought was influenced by his philosophical predecessors. He rarely refers to any god by name. If he does so, it is usually when he is

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[44]Poseidon's all-consuming anger towards Odysseus after, the blinding of his son, Polyphemus, in the *Odyssey.* book 9 for example, forms much of the premise for the *Odyssey.* With his own petty vengeance in mind, he pursued Odysseus to the ends of the earth. In contrast, the gods chose to help Priam in his grief for the death of his son Hector and the loss and violation of Hector's body. Hermes himself, at the request of Zeus, took on human form to give Priam safe passage and lead him into Achilles' camp to retrieve his son's body. (See e.g. *Iliad.* 24.154-155, and 457-464). The Homeric gods were, however, also seen as a way of explaining departures from natural behaviour - in other words, why things did not seem to follow some sort of natural order. E.R. Dodds, *The Greeks and the Irrational.* Berkeley: University of California Press, 1956, pp.8-18 and Dover, pp.136-140.

[45]See Gregory Vlastos, "On Heraclitus," *AJP.* 76 (1955), p.358 and David Wiggins, "Heraclitus' Conceptions of Flux, Fire and Material Persistence," in *Language and Logos, Studies in Ancient Greek Philosophy Presented to G.E.L. Owen.* Malcolm Schofield and Martha Nussbaum eds., Cambridge: Cambridge University Press, 1982, p.5.

[46]δῖα Δίκη σβέσσει κρατερὸν Κόρον, Ὕβριος υἱόν, / δεινὸν μαιμώοντα, δοκεῦντ' ἀνὰ πάντα πιθέσθαι.

doing comparative work involving the beliefs of other cultures.[47] He does, however, frequently refer to τὸ θεῖον, a single divinity which guaranteed world order.[48] All nature was ordered by this divinity (3.108). In pre-philosophical thought no god controlled everything.[49] In the Homeric poems, Zeus is considered supreme, but nonetheless he felt himself unable to prevent the death of his son Sarpedon who was destined to be killed (*Iliad* 16.433-507). Zeus could have forestalled Sarpedon's death, but chaos would have ensued. Many natural phenomena such as rivers and mountains were believed to have their own wills and power of influence, but there was no sense that the world was conceived of as one "organic whole".[50] With Xenophanes the regular pantheon of anthropomorphic gods was first criticised and the idea of one supreme god, whose rule was not arbitrary, was introduced.[51] Later Presocratics took the word, τὸ θεῖον, which seemed so closely associated with the "irrational, unnatural and unaccountable, and made it the name of a power which manifests itself in the operation, not the disturbance, of intelligible law".[52]

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[47]See for example 2.134 where Herodotus is trying to demonstrate that Heracles, Dionysus and Pan are Egyptian gods "who have been imported into Greece and that the dates for their births current in Greece (2.145.4) are simply a reflection of the states at which they were introduced there (cf. 2.50.1)." Alan B. Lloyd, *Commentary on Herodotus Book II*, Vol. 3, Leiden: E.J. Brill, 1988, p.113.

[48]Immerwahr, *Form and Thought*. (above, n.13) p.312.

[49]G.E.R. Lloyd, *Polarity and Analogy*. (above, n. 43) p.197.

[50]G.E.R. Lloyd, *Polarity and Analogy*. (above, n. 43) p.202.

[51]There is considerable discussion about whether Xenophanes was a monotheist or not. See the discussion in Michael C. Stokes, *The One and the Many in Pre-Socratic Philosophy*. Washington DC: Center for Hellenic Studies, 1971, pp.76-84. Also see Barnes who argues strongly for the monotheist position (above, n. 39, pp.89-92) and *KRS* who are perfectly willing to see a hierarchy of gods (pp.170-171). For a very good discussion of Xenophanes' beliefs see Guthrie (above, n. 39) pp.373-383. (He tends to the monotheistic position.) I am not concerned with this problem. It is clear that Xenophanes at any rate believed in one supreme god, for he said "One god, greatest among gods and men, in no way similar to mortals either in body or in thought." εἷς θεός, ἔν τε θεοῖσι καὶ ἀνθρώποισι μέγιστος, / οὐτι δέμας θνητοῖσιν ὁμοίιος οὐδὲ νόημα. (DK F B23, translation *KRS* p.169).

[52]James Longrigg, *Greek Rational Medicine, Philosophy and Medicine from Alcmaeon to the Alexandrians*. London: Routledge, 1993, p.32. The Milesians, trying to define the divine presence which they sensed in the universe, turned to a description of an ultimate divinity which either was some physical substance which changed into everything without losing its own identity, or that it was some intelligible essence beyond the immediately sensible. A. Finkelberg, "The Milesian Monistic Doctrine and the Development of Presocratic Thought," *Hermes* 117 (1989) p.270. Heraclitus described the divine entity as the only thing that could perceive the ordering of the world, and which was, indeed, responsible for the ordering of the world. See Kirk, *Heraclitus*. (above, n. 39) pp.385ff. One of the most obvious indications of

While Herodotus does not reject the Olympian gods, these gods could not arbitrarily change the course of nature, but worked through natural processes.[53] For example, he says "whoever thinks that Poseidon shakes the earth, and that the rifts from the earthquakes are the works of this god, seeing this would say that Poseidon made it; for it is the work of an earthquake, as it seems to me, which has split the mountains (7.129.4)".[54] In other words, if one believes that Poseidon causes earthquakes, then Poseidon indirectly created the Peneus river, but it was the natural action of the earthquake itself which was the principal cause of the river.[55] There is no sense in the *Histories* that anything divine is supernatural.[56] Rather, there is the idea in the *Histories* as among the Ionian philosophical writings that "nature was uniform, transparent, and a reliable source of truth".[57] For Herodotus as for the Ionian philosophers the human, divine and physical worlds were all part of the same cosmos and subject to the same laws of nature.[58] The divine anthropomorphic gods were subordinate to nature, but nature itself was regulated by the divine (3.108), and indeed was, in the sense of the Milesians and Heraclitus, itself divine.[59]

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the new world view which was symbolised by the development of Ionian philosophy was this shift away from anthropomorphic gods to an idea of an amorphic divinity. Kahn, *The Art and Thought of Heraclitus*. (above, n. 39) p.11 .

[53]Already with Xenophanes "the study of gods was not divorced from that of nature". *KRS* p.168, see also pp.177f.

[54]ὅστις γὰρ νομίζει Ποσειδέωνα τὴν γῆν σείειν καὶ τὰ διεστεῶτα ὑπὸ σεισμοῦ τοῦ θεοῦ τούτου ἔργα εἶναι, καὶ 'ὰν ἐκεῖνο ἰδὼν φαίη Ποσειδέωνα ποιῆσαι · ἔστι γὰρ σεισμοῦ ἔργον, ὡς ἐμοὶ ἐφαίνετο εἶναι, ἡ διάστασις τῶν ὀρέων.

[55]See Hugh Lloyd-Jones, "Founding Father," in *Greek in a Cold Climate*. London: Duckworth and Co, 1991, p.51.

[56]Lateiner, *Historical Method*. (above, n. 2) p.200.

[57]Gordon S. Shrimpton, *History and Memory in Ancient Greece*. Montreal and Kingston: McGill-Queen's University Press, 1997, p.114.

[58]Jean-Pierre Vernant, *The Origins of Greek Thought*. Ithaca, New York: Cornell University Press, 1982, p.103; Michael J.D. Carter, *The World of Herodotus*. MA Thesis, Kingston: Queen's University, 1993, p.25. Herodotus occasionally uses the word *phusis* in one of the manners in which the Ionian philosophers employed it - namely as an enquiry into nature. G.E.R. Lloyd, *Magic Reason and Experience, Studies in the Origin and Development of Greek Science*. Cambridge: Cambridge University Press, 1979, p.30. For the most part, however, his use of it was much more closely connected to its original sense of growing or growth. J.L. Myres. *Herodotus*. Oxford: Oxford University Press, 1953, p.48. He never used it in the overarching sense of a rule of nature (see Powell, p.377) which I am discussing here, but as with so much of his work, although he did not employ the specific vocabulary, the idea was still present.

[59]In respect to nature, Herodotus often pointed to the necessity of the existence of the divine,

Herodotus makes it clear that the threat against this divine ordering by the violation of natural limits brought punishment, rather than a hubris of thought that brought about divine retribution.[60] There is a concept of a divine ordering but no sense of divine predestination.[61] Xerxes was not guilty of hubristic thought before he endeavoured to conquer Greece; indeed the Persians said it was only because of a dream that he was prompted to attack (7.12).[62] In fact, Xerxes was at his most rational at this point.[63] When he set out to cross the Hellespont, he lost his clarity of vision, tried to extend his own jurisdiction over another people and over nature itself, and consequently paid the penalty.

Only when people ventured outside their own territorial limits in migration rather than conquest could they do so successfully. Each race belonged to a specific region. Their characteristics were formed as a counterpart of the geography of a particular area. Races such as the Scythians and the Athenians had crossed their own region's borders, and had ultimately

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without using the title thereof. Immerwahr, *Form and Thought.* (above, n. 13) p.312.

[60] Herodotus does mention divine retribution for hubristic thought, but it is always in reported speech: e.g. 1.32 with Solon's discussion of how the god likes to trouble humans or 7.10-7.16 with Artabanus' discussion of pride and its consequences. Artabanus' theory of hubris is nowhere supported in the *Histories.* J. De Romilly, *The Rise and Fall of States According to the Greek Authors.* Ann Arbor: The University of Michigan Press, 1977, p.45.

[61]Binyamin Shimron. *Politics and Belief in Herodotus.* Stuttgart: Historia. Heft 58, 1989. Chapter 4. *contra* see J. Hart, *Herodotus and Greek History.* London: Croom Helm, 1982, Chapter 3. Events do happen in accordance with a divine plan, but this is all part of the natural ordering. It is not fitting for one person to have everything - that would create an imbalance in the natural order. Polycrates, the ruler of Samos, for example, had success in everything he attempted, but as his friend Amasis realised this simply meant that he would be brought to ruin ultimately, for "the divine is jealous" (τὸ θεῖον ὡς ἔστι φθονερόν) (3.40). He was so fortunate that even the ring, his most prized possession which he threw away to try to make reparation for all the good fortune which he was enjoying, was returned to him. Ultimately, however, reparation did have to be made, and he was lured to an ugly death by crucifixion.(3.39-42, 3.120-126) His death though was much less a result of his personal character (after all he had tried to atone for his excessive good-fortune), than simply because he was so fortunate.

[62]Herodotus distanced himself from the story of the dream by declaring "as the Persians say," ὡς λέγεται ὑπὸ Περσέων., but whether he believed in it or not, it certainly drew the emphasis away from the idea of hubristic thought earning punishment. De Romilly, *The Rise and Fall of States.* (above, n. 60) p.45. Xerxes' defeat came not for his thoughts of conquest, but when he put these into action and lost respect for nature, in the process not merely yoking the Hellespont with boats, but first whipping it.

[63]Pericles Georges. *Barbarian Asia and the Greek Experience.* Baltimore: John Hopkins University Press, 1994, p.188.

become assimilated into the geography of another area, but such occasions were rare.[64] They were features of the dim past, not of Herodotus' own time. For a colonisation attempt to be successful in Herodotus' period, colonists had to win the approval of the Delphic Oracle.[65] Herodotus creates a "climatically structured ethnographic map in which concentric circles of humanity pressed upon one another in competition for the temperate zone at the centre".[66] Every time Herodotus describes a contemporary occurrence of a race pressing upon another by attempting to invade the other's territory, it is portentous. The physical boundaries between each sphere of the world dictated the limits to which a race could extend. If any race tried to claim land beyond its own region it signified an "injustice which corrupt[ed] and cause[d] reversal".[67]

While it was possible to leave one's own territory in migration with impunity, those who transgressed the boundaries in conquest did so with hubristic trust in their own superiority. The Persians, for instance, were an ethnocentric race who believed that it was

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[64]It is interesting to note that in his reports of these migrations, Herodotus did not mention the natural boundaries which he was so careful to emphasise when people left their own territory in conquest.

[65]Carol Dougherty, *Poetics of Colonization, from City to Text in Archaic Greece*. Oxford: Oxford University Press, 1993 passim, particularly pp.19-24. See also Irad Malkin, *Religion and Colonization in Ancient Greece*. Leiden: E.J. Brill, 1987, Chapter 1 where there is a detailed discussion of the role of the oracle in colonization and an overview of much of the literature on the subject. Herodotus nowhere explicitly stated that he believed that Delphi was the centre of the world, as many previous and subsequent geographers were to state, but this idea lies behind his thought (see Strabo, 9.3.6 and Agathemerus, 1.3). Delphi was literally as well as conceptually at the centre of the Greek world, lying more or less on the North south and East west axes, and was on the trading route for much of the Mediterranean so it was easy for the Delphic priests to gain information (Hart, above, n. 61, p.37). It also had a long tradition as a religious centre for the world (see Pindar cited by Strabo, 9.3.6). Herodotus' devotion to Delphi is one of the few things about him which has never been questioned. (W.G. Forrest, "Herodotus and Athens," *Phoenix* 38 (1984) p.7). The story of Delphi's deliverance by divine intervention is one of the few occasions where Herodotus reports a god playing a part in events beyond the natural (8.37). It is concerning Delphi that Herodotus' belief in some aspects of traditional religion becomes apparent. Here was where he thought the divine and human spheres were closest, and the authority of the Delphic oracle was not to be challenged (8.77). Only here could one gain permission to go beyond one's own territorial limits and initiate a successful colonising venture (see e.g. 4.155-159).

[66]James Romm. *The Edges of the Earth in Ancient Thought, Geography, Exploration and Fiction*. Princeton: Princeton University Press, 1992, p.66; see Herodotus 4.13.

[67]Henry Wood, *The Histories of Herodotus; An Analysis of the Formal Structure*. The Hague: Mouton, 1972, p.67.

their duty to conquer others (7.8).[68] They defied their natural boundaries in an attempt to conquer and impose their rule and culture on humans elsewhere.[69] Those who migrated, however, were presumably seeking a better environment. Such races might ultimately adapt to the pressures of the new environment.

In his conception of the importance of boundary and limit, and in his ideas of the importance of nature all working as one divine cosmos, where the divine was not so much supernatural as entirely natural, Herodotus owes a great debt to the type of ideas recorded by earlier philosophers. Unlike them, however, he tends to set these ideas into the physical framework of the world. The boundaries which should not be violated were clearly visible, marked out by geographical features of rivers and deserts. It was not elements or suns who should not violate these boundaries, but human beings.

Although Herodotus saw the geography of the world in human terms, humans were part of the geography. Natural law held supremacy over human desires. Therefore, any time that humans tried to impose their will on nature, they were committing an act of hubris and nemesis was bound to follow. No single person or race could be masters of the whole world, breaking out of the limits defined by nature. Such an act occasioned divine interference, for "the gods and heroes... were jealous that one impious and presumptuous man should be king of both Europe and Asia" (8.109.3).[70] There are few such explicit references to divine interference in Herodotus' work, but throughout the *Histories* it is evident that no person could gain dominance over nature without suffering retribution. There was an implied divine interference. Such cases of retribution are particularly apparent whenever people endeavoured to break a natural boundary, and subjugate another race.

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[68]Romm, *Edges of the Earth.* (above, n. 66) p.54.

[69]The best example of such desires in conquest, is Cambyses on his Egyptian and Ethiopian campaign.

[70]θεοί τε καὶ ἥρωες, οἳ ἐφθόνησαν ἄνδρα ἕνα τῆς τε Ἀσίης καὶ τῆς Εὐρώπης βασιλεῦσαι. These are supposedly the words of Themistocles so it is dangerous to credit them to Herodotus. They do, however, seem to echo how Herodotus thought of the world. He did not believe that any one person could transgress the boundaries which separated Europe from Asia, and rule both regions.

Chapter 5.
Race and Geography: Herodotus' Theory of Environmental Determinism

Herodotus' ideas about natural boundaries defining the territorial limits of every race or ethnic group, were inextricably connected with his interests in the diversity among races. In this chapter I examine how Herodotus, contrary to the popular Greek ethnographical belief exemplified by Aeschylus and Hippocrates which tended to see the world as polarised into two groups of people -- Greeks and non-Greeks, perceived a great racial diversity among humans which he explained by a theory of environmental determinism. In the course of his investigations, Herodotus travelled widely, and through personal observation as well as hearsay he learnt much about the variety among human beings both culturally and racially. In attempting to account for both the differences and similarities between various ethnic groups, which his investigations had brought to light, he had "recourse to the highly tangible and mechanistic doctrine of environmental determinism."[1] He believed that the distinctive characteristics of every race were formed by the climate and geography of their native regions.[2] Territorial limits restricted each ethnic group to its own geographical region. Once an ethnic group ventured beyond its geographical confines it became subject to different environmental influences, and ultimately its racial characteristics altered. While some other Greeks, particularly the medicinal writers, also proposed such a theory, it was in conflict with the prevailing ethnographical viewpoint of the fifth-century Greeks which maintained that the Greeks were inherently superior, and all others uniformly inferior. Because of their

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[1]Alan B. Lloyd, "Herodotus on Egyptians and Libyans." in *Hérodote et Les Peuples Non Grecs*. Olivier Reverdin and Giuseppe Nenci eds., Geneva: Fondation Hardt, 1990, p.225.

[2]"Race" is an inadequate term, for strictly speaking it should refer to a group of people larger than those belonging to a single nation. One should, for example, speak of the Greek nation not the Greek race. "Nation" and "race" are too often muddled in modern usage. Griffith Taylor, *Environment and Nation, Geographical factors in the Cultural and Political history of Europe*. Toronto: Toronto University Press, 1936, pp.21-22 gives a lengthy description of the problems in conflating the two terms. I have used the word "race" advisedly here, however, for "nation" involves greater problems than "race" when referring to the people with whom Herodotus was concerned. "Nation" implies some sort of centralisation around a single government, and many of the peoples with whom Herodotus was concerned had no such system - the Greeks themselves being the most obvious example. There is no English equivalent of the Greek word *genos* which implies some form of relationship by birth, nor is there a stronger translation for *ethnos* than the terms ethnic group or ethnic community. Therefore at various points in this chapter, I have had to resort to the word "race" although I am aware that it is not strictly speaking an accurate term.

uniform inferiority, they could all be branded together under the single name: barbarian.[3]

For Herodotus such a doctrine was simplistic. Although he believed that the Greeks held a privileged position in the world, this position could be attributed to the climate and geography of their country, which created a superior people (7.102). Even this superiority was not unqualified, however. For instance, he thought that the Athenians, who earned his appreciation for their defence of Greece, were foolish in not seeing through Peisistratus' trick when he dressed up a local woman as Athena and deceived the people of Athens into believing she really was a goddess (1.60).[4] Herodotus was a philhellene, but he could see that his own people were not perfect, and that barbarians were not altogether imperfect. Nonetheless Herodotus does use the terms "Greek" and "barbarian". In doing so, however, he does not create any over-all definition of the barbarians but rather establishes, through opposition with various different barbarian groups, a definition of the Greeks.[5] When he does use the term "barbarian" he employs it to refer to variety of distinct ethnic groups,[6] so that

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[3]Originally the distinction between Greeks and barbarians was based along linguistic lines between those who could speak Greek and those who could note. By Herodotus' time it had had a much wider application developed out of greater exposure to non-Greek communities. See below, particularly footnotes 7 and 30.

[4]Seth Benardete, *Herodotean Inquiries*. The Hague: Martinus Nijhoff, 1969, p.22. As Connor points out, Herodotus is amused and puzzled by this elaborate pretence, but he sees no reason to doubt that the procession took place. Peisistratus was not trying to portray himself as a god, but as the goddess's assistant. She, like he had been away under the previous regime, "but was not returning to her proper place and traditional role as Athens' protector (p.46)." Herodotus was perfectly willing to accept the occurrence of such an episode. What he finds risible was the willingness of the Athenian citizens, "who in his day made pretensions to the greatest urbanity and sophistication" to accept Peisistratus' story (p.47). See W.R. Connor, "Tribes, Festivals and Processions in Archaic Greece," *JHS* 107 (1987) pp.40-50.

[5]Donald Lateiner, *The Historical Method of Herodotus*. Toronto: University of Toronto Press, p.145. His use of this word, however, demonstrates, how he differed from his contemporaries in ethnographical thought. The first occurrence of the word in the text combines it with *ethnea* - the Persian and the barbarian races living in Asia. In contrast to Aeschylus' use of the singular *ethnos*, it shows how Herodotus believed in various barbarian races rather than binding them all into a single category. The image of the Greeks created throughout the *Histories* is of a people characterised by their love of freedom, in contrast to the majority of barbarian people who submitted to despotic rule, for example, the Lydians, the Persians, the Scythians and the Egyptians. See Arnaldo Momigliano, "Eastern Elements in Post-Exilic Jewish, and Greek, Historiography," in *Essays in Ancient and Modern Historiography*. Oxford: Basil Blackwell, 1977, p.18, and Lateiner, *Historical Method*. p.22.

[6]See e.g. 1.6 referring to Lydian Croesus, 2.50 referring to the Egyptians, 6.121 referring to the Persians. It is true, however, that barbarian is far the most frequently used to refer to the Persians, but this is not surprising considering that the main focus of the last books is the Persian war.

even when he is creating a definition of the Greeks through opposition, it is not one founded on a simple opposition with all barbarians. The doctrine of environmental determinism is purely theoretical, but it is a theory which provides explanation for the diversity among humans. By contrast, the prevailing ethnographical theory of a world polarised between Greeks and barbarians sought to downplay the differences among all non-Greeks. The proponents of this doctrine, like Herodotus, were creating a definition of Greeks through opposition, but at the same time they were disregarding all differences between barbarians and so were also defining the term "barbarian". Herodotus too was occasionally capable of overlooking details, but this disregard of many empirical data about foreign peoples by many of his contemporaries did not accord well with Herodotus' investigations. In ethnographical just as in geographical thought, he therefore found himself outside the mainstream of popular belief. For Herodotus, while there was a place for the Greek, there was no room for the barbarian as an all-embracing category.

In the course of the fifth century, a combination of the development of the *polis*[7], the creation of a "collective Panhellenic identity" as a result of the Persian wars[8], and a greater contact with other cultures and ethnic groups brought about by more extensive trade and travel, provoked the development of a new branch of Greek ethnographical thought.[9] These

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[7]P. duBois, *Centaurs and Amazons, Women and the Pre-history of the Great Chain of Being*, Ann Arbor: The University of Michigan Press, p.79. The *polis* created a central community round which life was centred; gods were considered to extend protection to the whole city rather more than to select individuals as was formerly the case. See Jean-Pierre Vernant, *The Origins of Greek Thought.* Ithaca, New York: Cornell University Press, p.55. The *polis* began to create a communal identity for the Greeks without which they could have no conception of the barbarian. Importantly speech became "the political tool par excellence," being a necessity for the debates, discussions and arguments that were so much a part of the political life of the *polis* (Vernant, p.49). Any who could not speak the language must inevitably have been outsiders. Indeed the importance of language provoked the first classification of the barbarian as someone who could not speak Greek. "On est barbaraphonos avant d'être barbaros." Jacqueline de Romilly, "Les Barbares dans la Pensée de la Grèce Classique," *Phoenix* 47 (1983) p.283

[8]Edith Hall, *Inventing the Barbarian Greek Self-Definition through Tragedy*, Oxford: Clarendon Press, 1989, p.6. The Greeks accustomed to giving priority to state rather than ethnic allegiance, fought alongside one another for almost the first time in their history when they faced the common threat from the Persian empire. Although within half a century the two leading states of Athens and Sparta were once again at war with one another, the brief alliance had at least initiated a concept of an Hellenic identity.

[9]By the end of the sixth century trade had increased greatly. Much of the cultivable land in Greece was given to olive production and viticulture (Vernant, p.72). These provided costly exports, but Greece had its own price to pay. Greece simply could not produce enough food to feed her own population. The Greek city-states began to send out colonies to solve some

factors led to an increased interest in non-Greeks and a creation of the theoretical concept of the barbarian as "the universal other"[10]. The Greeks began to study the barbarian; they even invented a new term, *barbaros*, which is not in any extant Greek literature before the Persian wars, to apply to all non-Greeks.[11] The ideas of Greeks and barbarians pervaded all Greek society, so that even Herodotus, although fascinated by the diversity among all races, was also intrigued by the difference between Greeks and the various non-Greeks. But whereas in other writings, such as the *Persae* of Aeschylus, this difference was reduced to an absolute polarity between Greeks and barbarians, Herodotus' ideas were not so extreme.

Art was the earliest method used to emphasise the polarity between Greeks and barbarians. On buildings such as the temple of Apollo Daphnephorus in Eretria or the Athenian Treasury at Delphi, Amazons and Greeks paraded across the facade.[12] In other places Centaurs or Giants took the role of the Amazon. As duBois states, "in the myths of the Greeks, the Amazons and the Centaurs were creatures at the boundaries of difference".[13] On the sculptures, these Centaurs and Amazons were frequently made analogous to the Persians.[14] Although occasionally, as on the Stoa Poikile and the temple of Athena Nike, Greek artists depicted Persians as Persians, for the most part they relied upon inference from representations of mythical opponents.[15] The marginal nature of the mythological beings

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of the problems of overpopulation. They also became involved in an extensive trade network which extended from Cadiz to the Black Sea, and from the Po to the Nile. Lionel Casson, *The Ancient Mariners, Seafarers and Sea Fighters of the Mediterranean in Ancient Times.* 2nd ed., Princeton: Princeton University Press, 1991, p.80. See also Christian Froidefand, *Le mirage Égyptien dans la littérature Grecque d'Homère à Aristote.* Aix-Marseille: Université d'Aix-Marseille, 1971, p.69 for how the exotic designs and tales which appeared in the art and literature were the result of greater knowledge and communication with foreigners and knowledge of them, but how the presence of foreigners in ports also provoked hostile reactions which helped create this notion of the barbarian.

[10]Hall (above, n. 8) p.6.

[11]Hall (above, n. 8) p.57.

[12]Both of these buildings have been dated as early as 525 BC but more probably date to the post-Persian war period. See E.D. Francis, *Image and Idea in Classical Greece, Art and Literature After the Persian Wars*, Michael Vickers ed., London: Routledge, 1990, Chapter 1.

[13]duBois (above, n. 7) p.27.

[14]duBois (above, n. 7) p.56.

[15]duBois (above, n. 7) p.54. The former, dated to around 450 BC contained various paintings of Athenian wars, the most famous of which was a picture of the battle of Marathon in which Miltiades himself was portrayed. See John Griffiths Pedley. *Greek Art and Archaeology.* New Jersey: Prentice-Hall, 1993, p.213. The latter, made around 420 BC showed various scenes of Greeks fighting Persians and also of Greeks fighting Greeks (Pedley, p.254).

served to emphasise the strangeness of the Persians in particular as well as barbarians in general.

Just as these sculptures created the polarity between Greek and barbarian through inference, so did the literature. The *Persae*, written by Aeschylus in 472 BC is the earliest, and perhaps the most emphatic example of this polarisation where, once again, inference on the part of the observer was used to create the concept of an absolute difference between Greeks and non-Greeks.[16] No Greek speaks in the text, yet virtually every characteristic of the Persian in the text is made in unstated comparison with a Greek norm.[17]

From the outset of the play Aeschylus draws attention to the fundamental difference which the Greeks perceived between themselves and the barbarians. The Greeks thought of themselves as free, and other people as enslaved, owing their loyalty as much to the king as to the country. For the Persians of Aeschylus, King and nation are virtually synonymous. Persia is "so unified behind its leader that the welfare of the king is essentially equivalent to the welfare of the state".[18] The faithful men of the chorus guard the luxurious and wealthy seat (ἕδρανα)[19] of the king, and are chosen to oversee his lands. Palace and country are indistinguishable. The King is absolute and holds the future of the country in his hands. In the play, when the power of the King is threatened, it seems as if the whole stability of the Persian state will collapse (584-594)[20].

Unlike Herodotus, Aeschylus portrays the Persian Empire only when it has succeeded in extending its rule over all of Asia (as it was known to the Greeks) and even some of

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[16]duBois (above, n. 7) p.17, Broadhead disagrees and thinks that the difference between Greek and barbarian was of very little importance to Aeschylus (xix) and that his primary purpose was to show the penalties exacted by the gods for transgressing divine law (xxix). H.D. Broadhead, *The Persae of Aeschylus, with Introduction and Commentary*. Cambridge: Cambridge University Press, 1960. In this he agrees with Jacques Jouanna, "Les causes de la défaite des Barbares chez Eschyle, Hérodote et Hippocrate," *Ktema* 6 (1981) pp.4-6. In fact, both ideas were present in his text.

[17]duBois (above, n. 7) p.80.

[18]D. Schenker, "The Queen and Chorus in Aeschylus' *Persae*," Phoenix 48 (1994) p.284.

[19]The word ἕδρανα here seems to refer to both the palace and the country.

[20]One can see further indications of how king and country had become synonymous in lines 913 and 930. In the former Xerxes cries out that the strength has been loosed from his limbs (λέλυται γὰρ ἐμῶν γυίων ῥώμη) (P 913); in the latter, the chorus picks up the image and wails that the land of Asia has been brought to her knees. Both king and country are crippled after the men of Persia have been destroyed.

Africa.[21] The empire which Xerxes inherited from his father Darius was immense, stretching half across the known world from central Asia to Ethiopia, and from the Ionian islands to the Indus.[22] In the list of people who followed Xerxes across the Hellespont are included Lydians, Egyptians and Babylonians (34-58). Yet Aeschylus, while noting the different peoples who contributed to the Persian army, does not distinguish one from the other. Even where he does list the names of different leaders, he is occasionally guilty of confusion. In this passage, for instance, Arcteus is listed as a Lydian, but later (312) he is called Egyptian.[23] Neither the name nor the nationality is of specific importance, the only significance is that all these people were part of the barbarian horde who were "called from Asia in the dreadful military march of the King (57)."[24] The King's power over them is their only notable characteristic.

In the same passage, Aeschylus takes one further step in eradicating all signs of difference between the various people under Persian rule and subsuming them into one single category of barbarian. He states that a crowd of Lydians who ruled over the whole race of continental-born people formed part of the exodus following Xerxes from Asia. All the diverse nations of Asia Minor from Carian to Ionian, from Paphlygonian to Dorian are included in the one word *ethnos*, namely a single race of continental-born people. Where Herodotus emphasised the diversity of the people under Lydian rule, by enumerating all the different peoples whom Croesus conquered (1.28), Aeschylus concealed this diversity. In part, he probably wished to diminish the significance of the fact that the Ionians of Asia Minor fought on behalf of the Great King against their fellow Greeks,[25] but in obscuring the Greeks' participation in the war alongside the Persians he added emphasis to the polarity

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[21]Aeschylus seems to have adopted the bipartite theoretical division of the world which Anaximander advocated. There are repeated mentions of Asia referring to all the peoples under Persian rule including the Egyptians (see e.g. line 61) in opposition to Europe. For the most part Aeschylus referred to the specific state of Greece rather than to the whole continent, but in line 800 it becomes clear that he thought of the world as split into Europe and Asia, separated from each other by the Hellespont.

[22]Hall (above, n. 8) p.93.

[23]Richmond Lattimore, "Aeschylus on the Defeat of Xerxes," in *Classical Studies in Honour of William Abbott Oldfather*. Urbana: The University of Illinois Press, 1943, p.86.

[24]ἐκ πάσης / Ἀσίας ἔπεται / δειναῖς βασιλέως ὑπὸ πομπαῖς.

[25]Broadhead (above, n. 16) p.44 and Anthony J. Podlecki, *The Political Background of Aeschylean Tragedy*. Ann Arbor: The University of Michigan Press, 1966, p.17.

which he was creating.[26] In Aeschylus' portrayal, Greeks do not submit to despotic rule, but rather fight against it. All other people, however, are united in a single identity by their slavish adherence to a single ruler's command.[27]

It can be assumed that Aeschylus knew a great deal about the Persians. He himself is believed to have fought at Marathon and his brother died there. Information about the Persian Empire was bound to have circulated throughout the Greek world from Ionia which, after all, did not merely live in the shadow of the Persian Empire, but despite efforts like those of Aeschylus to obscure such a detail, had in fact been conquered by the Persians. This knowledge, however, rarely becomes apparent in the play. A few images, such as specific citations of articles of Persian dress, indicate familiarity,[28] but for the most part the Persians remain without a specific identity. They are part of the mass of barbarians. The name "Persian" is sometimes used to apply to the whole barbarian hoard (e.g. 332-355), just as Persia is used to refer to all Asia and Africa, but this does not serve to individualise the Persians, but rather the converse. Many of the leaders in the Persian army, irrespective of their supposed place of origin, have Persian-sounding names.[29] Persian and barbarian are not

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[26]Only later in the play (e.g. l.771) does Aeschylus record that the Persians ruled over the Ionian Greeks as well. Yet even here his mention of them merely serves to emphasise the difference between Greeks and "others". Cyrus took possession (ἐκτήσατο) of the people of Lydia and Phrygia as if they were rightfully his, but he persecuted with force (ἤλασεν βίᾳ) all Ionia. See, Podlecki above, n.25) p.17 and Broadhead (above, n. 16) p.194. The *all Ionia* ('Ιωνίαν πᾶσαν) indicates both a subtle reference to Ionian Attica which was, after all, still being persecuted by the Persians, as well as a reference to the Ionians of Asia Minor.

[27]Pericles Georges, *Barbarian Asia and the Greek Experience, from the Archaic Period to the Age of Xenophon*. Baltimore: The Johns Hopkins University Press, 1994, p.80.

[28]See A.S.F. Gow, "Notes on the *Persae* of Aeschylus," *JHS* 48 (1928) pp.151-2 and Helen H. Bacon, *Barbarians in Greek Tragedy*. New Haven: Yale University Press, 1961, p.27. As Aeschylus' discussion of the hat and shoes of the Persian king (660-663) indicates, his portrayal of Persian clothing is accurate in so far as it he goes. As Gow has pointed out, however, Aeschylus only elaborates upon the clothing that emphasise the difference between Persians and Greeks. The Persians, for instance, wore a *chiton* which though different from the Greek *chiton* had the same name. To mention it would be to weaken the "illusion of a strange foreign fashion" which Aeschylus was trying to emphasise (Gow, p.152).

[29]Martin L. West, *Studies in Aeschylus*. Stuttgart: B.G. Teubner, 1990, p.76. West points out that the leaders of the Egyptians - Sousikanes, Pegaston, Arsames, and Ariomardos, and of the Mysians - Mardon and Tharybis, have Persian sounding names "in so far as they sound like anything." Some of the names, such as Mitragathes which means "by whom Mithra is hymned" in old Persian, are plausible, but the majority of the names of the 49 Persian princes are clearly fictive, formed to sound probably Persian (Bacon, above, n. 28, p.23). These names accentuate difference, but have little basis in reality, unlike Herodotus for whom there was "at least some nucleus, documentary or quasi-documentary, to [his] list which correlated

entirely synonymous within the play, but the difference between them lies largely in the different implications the two words had for the Greeks. The word "barbarian" had the connotation of the incomprehensible and disorganised, of an unintelligible language sounding only of bar-bar-bar.[30] "Persian", by contrast, brought with it the idea of the might and organisation of an entire empire held in the tyrannical control of the Great King. Within the play, the difference between the two terms is linguistic rather than geographic and ethnographic. The theoretical construct of the division between Greek and barbarian overruled all aspects of empirical knowledge which Aeschylus possessed. It was not important to present all the factual data; instead it was important to create a barbarian identity and thereby to reinforce a Hellenic awareness of the Greeks' own identity.

In the *Persae*, Aeschylus saw people as related to geographical position in terms of jurisdiction, but not in terms of racial characteristics.[31] The limits of Asia defined the legitimate extent of Persian rule. Like Herodotus, he believed that violation of such a geographical limit was a hubristic act which earned reprisal. By seeking to "yoke" the Hellespont, and harness together Europe and Asia, Xerxes was breaking the natural boundaries of his jurisdiction.[32] The sea provided a geographical confine for the Empire. When Xerxes ignored these limits he was not only trying to extend Persian rule over free human beings whose very nature was to fight against despotic control, but he was also undertaking a hubristic attempt to exert his own authority over nature itself. Xerxes, by bridging the Hellespont, here seen as marking the division between Europe and Asia, was endeavouring to unify a world that was naturally formed in two parts. Consequently he

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contingents with real names." David M. Lewis, "Persians in Herodotus," in *The Greek Historians, Literature and History, Papers Presented to A.E. Raubitshcek*. Stanford University, Saratoga, California: ANMA Libri, 1985, p.116.

[30]Aubrey de Sélincourt, *The World of Herodotus*. London: Secker and Warburg, 1962, p.26. See also Bacon, p.24 for how Aeschylus introduced meaningless words into his texts to emphasise the cacophonous nature of all foreign speech.

[31]On only one occasion in the play did he make a reference to anything that might possibly have been conceived of as a physical trait (Bacon, above, n. 28, p.25). When the messenger arrived bringing news of the battle of Salamis, the chorus identified him as a Persian by his gait. Apparently Aeschylus thought of the Persians as having an identifiable way of running.

[32]J.R. Wilson. "Territoriality and its Violation in the Persians of Aeschylus," in *Greek Tragedy and its Legacy, Essays Presented to D.J. Conacher*. Calgary: University of Calgary Press, 1986; also Lateiner, *Historical Method*. (above, n. 5) p.127. For Aeschylus the repercussions for violating a natural limit were not so much ordained by natural law as the punishments brought about by Zeus for anyone whose pride led them to hubristic deeds (827). See Jouanna (above, n. 16) pp.4-6.

earned the punishment of the gods.[33]

Herodotus too saw the world as partitioned into areas of different jurisdiction, but these areas were on a much smaller scale. Each ethnic group belonged to a specific area, and its characteristics, at least in part, were determined by its physical environment. Herodotus perceived that human habitat also influenced *nomoi*, and so for him ethnicity, custom and geography became completely intertwined. He did not treat all these matters equally for each of the peoples about whom he wrote, but his interest in the causes as well as types of variety among humans and their customs pervades the book. Because of the complete interconnection of custom, geography and ethnicity in the mind of Herodotus, it is difficult to isolate the factors which he believed caused the differences between the various races and ethnic groups.

For Aeschylus, the grounds for a definition of the Greeks were simple: based on the theoretical idea of the polarity between Greeks and barbarians, the Greeks were simply, by definition, everything the others were not. Aeschylus used the cultural characteristics of the barbarians to create through opposition an identifiable image of the Greek, thereby defining Greek national identity only in terms of customs and values. He did not think of the people under Persian rule as so alien that they could not be comprehended like the Cyclopes of Homer or the Arimaspasians of Herodotus. He transformed the Persian territory and its barbarians "from a very far distant and often threatening otherness into figures that are relatively familiar".[34] These barbarians had emotions and reactions similar to those of the Greeks, but customs and characteristics entirely contrary.[35] Although servile and luxury-seeking, they still reacted in a manner which the Greeks would have understood, lamenting their fate. Herodotus, by contrast, studied a wide variety of peoples, whose customs, cultures and even physical attributes ranged from the almost familiar to the barely credible. He could not therefore create a simple definition of the Greeks, nor of any other peoples.

Herodotus wrote about forty years after Aeschylus first presented the *Persae* in Athens, but the idea of a polarity between Greeks and barbarians was still strong in the

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[33]The Persians, however, cannot understand "the meaning of chastisements imposed by god because barbarians are uncomprehending by nature." Georges (above, n. 27) p.88; also see Jouanna (above, n. 16) pp.4-6.

[34]E. Said, *Orientalism*. New York: Pantheon Books, 1978, p.21, see also Georges (above, n. 27) p.83.

[35]Georges (above, n. 27) p.83. "The Greeks hated well and warmly but they did not descend to the hypocrisy of damning the Persians as monsters *simply* because they wanted to conquer them."

Athens of his day. Indeed, many people, overlooking much of the material in the first part of the *Histories*, have argued that Herodotus too saw the world in straight polarisation between Greeks and barbarians as typified by the Persians.[36] Others, like Georges, have become confused, arguing that Herodotus both created and destroyed a racial opposition between Greeks and barbarians.[37] To an extent, Herodotus had been influenced by the theoretical idea of the polarity between the Greeks and barbarians, for he frequently used the Greeks as a standard, comparing the *nomoi* of other ethnic groups favourably or unfavourably with those of the Greeks,[38] but he never lost sight of the fact that these were different ethnic groups, all with their own customs.

Hartog has argued that Herodotus "in his effort to translate the *other*...proves unable to cope with more than two terms at a time".[39] For instance, "in order to convey the otherness of the Amazons", Herodotus portrays the Scythians as quasi-Greeks.[40] Hartog overstates his case. He sees, for instance, a literary construct in the description of the Scythians, and argues that the Persian war with Scythia acts as a model for the Persian war with the Greeks. The Scythians therefore are portrayed with Greek characteristics in order to emphasise the similarities between the two wars. What Hartog overlooks is that Herodotus' ethnographic descriptions are the product of investigation. To a certain extent the polarities between the Greeks and non-Greeks were created in these reports, because it must have been very difficult to translate elements of a completely foreign culture into something conceivable to the Greeks. There are two traps when one studies a distant or alien culture - one being to focus on the society as "the other" which tends to downplay any similarities, and the second is to focus on the similarities, thereby assimilating alien cultures to one's own by downplaying difference.[41] On various occasions, Herodotus or his sources stumbled into one

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[36]E.g. J.B. Bury, *The Ancient Greek Historians*. New York: Dover Publications, 1958, p.44; Michael Carter, *The World View of Herodotus*. MA Thesis, Kingston: Queen's University, 1993, p.13; and François Hartog, *The Mirror of Herodotus, the Representation of the Other in the Writing of History*. Janet Lloyd trans., Berkeley and Los Angeles: University of California Press, 1998, passim.

[37]Georges (above, n. 27) p.124.

[38]E.g. 1.94 concerning Lydian *nomoi*, 2.36 concerning Egyptian manner of writing right to left compared with the Greek way of writing left to right.

[39]Hartog (above, n. 36) p.258.

[40]Hartog (above, n. 36) p.224.

[41]Gordon S. Shrimpton, *History and Memory in Ancient Greece, with an Appendix on Herodotus' Source Citations by G.S. Shrimpton and K.M. Gillis*. Montreal and Kingston:

or other of these pitfalls, but this is not to say that on all occasions his depictions left room for only two polarities. If such were the case his portrayals of all ethnic groups would be little more than literary constructs, whereas, in fact, they are the results of his investigations.

Herodotus was capable of avoiding these traps when writing about the less important ethnic groups, but in his more extensive *logoi*, the problem of the polarity which Hartog describes becomes evident. Because of the difficulty in describing alien culture, this polarity may in part have been due to the reports which Herodotus received and not solely to his own deliberate creation. Herodotus also succeeds in avoiding the problem of absolute polarity by drawing comparisons between different ethnic groups. He discusses the Scythians in comparison not only with the Persians, but also with the Egyptians and the Greeks. When comparing the Scythians with the Greeks, he emphasises the aspects of Scythian society most alien to the Greeks, such as their nomadism and their submission to a king.[42] He sees great similarities between the Egyptians and the Scythians, attributable in part to their occupying complementary regions. Both nations, for instance, hated all foreign *nomoi* (2.79 and 4.80.2). By emphasising different aspects of ethnic character in contrast to different ethnic groups, even in lengthier *logoi*, Herodotus creates a picture of an ethnic group that is not founded on a simple theoretical system of exchangeable polarities. Herodotus amassed his own information and also employed "the economic, social and political data gathered by logographers and associated researchers" to gain knowledge about the various ethnic communities recorded in the *Histories*.[43] Because these investigative reports were concerned with alien cultures and therefore contained some of the problems in describing such a culture, they instilled some degree of polarisation into Herodotus' studies of ethnic groups, but they also enabled him to surmount this limitation. Polarity did not give him a simple definition of the Greeks, let alone of any other people.

Herodotus' investigations focused in large part upon ethnic customs, which enabled him, in part, to create an empirical definition of the specific nature of the various ethnic groups, for he defined the differences between the groups in terms of *nomos*, a word without

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McGill-Queen's University Press, 1997, p.84. Making one society comprehensible to another must always involve, at least to some extent, an "attempt to correlate concepts and conditions of one society with those of another and must involve a continual compromise and often falsification, however unconscious that may be." Alan B. Lloyd, "Herodotus' Account of Pharaonic History," *Historia* 37 (1988) p.77.

[42]References to both Scythian kingship and nomadism occur throughout the Scythian *logos*; the first mentions in book 4 are at 4.7 and 4.11 respectively.

[43]Lateiner, *Historical Method.* (above, n. 5) p.112.

a corresponding term in English. *Nomos* is frequently translated with words like "custom" or "way of life", but these are inadequate, because they omit the sense of binding obligation, tantamount to law, which these customs involved. The Greeks had other words meaning "custom", but Herodotus employs them far less frequently. The Greeks used the words *ethos* and *ethea* also to mean custom, usage or habit, but neither of these words had the connotation of binding law that was inherent in the word *nomos*. Herodotus uses the word *ethos* on only one occasion (4.76.5), and *ethea* only marginally more frequently.[44] For the most part he seems deliberately to employ the word *nomos*, relying upon the greater implications of the word. For the Greeks transgression of *nomos* set one beyond the limits of acceptable behaviour.[45] This sense of binding custom is one not present in many cultures; it is absent from our own, for instance. By using *nomos* as a means of comparison and definition for the various ethnic groups, Herodotus was relying upon a Greek concept and so, to an extent was introducing a Greek standard, and therefore bias into his work. The bias was not created by a deliberate theoretical concept, but inherent in the terms under which Herodotus studied other cultures. Although this bias existed, it too did not reduce his definition to an absolute comparison with the Greeks based upon polar opposition.

By comparing *nomoi*, Herodotus was able to introduce a subtlety into the difference between ethnic groups which language, location, and even physical characteristics did not permit. For instance, he could note that the Hellenes and the Lydians shared similar customs (1.94);[46] that the Babylonians and the Illurians had some customs in common with one another (1.195-196)[47], while the Egyptians had customs that were the reverse of all others (2.35). One can most clearly see the value which Herodotus placed on *nomoi* in his speech in 3.38 where he argued that everyone thought their own *nomoi* best. Just as the Greeks were horrified at the thought of eating their dead parents, the Callatian tribe from India was aghast at the thought of burning the bodies of the dead. Herodotus realised that the customs of one people were the horrors of another. He saw that no-one, given the opportunity to exchange

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[44]Hdt. 2.30.5, 2.35.2, 4.95.2, 4.16 and 8.144.2. See J. Enoch Powell, *A Lexicon to Herodotus*. Hildesheim: Georg Olms Verlagsbuchhandlung, 1960.

[45]See Lateiner, *Historical Method.* (above, n. 5) p.133.

[46]Herodotus thought that the Lydians and Greeks were very similar to each other in *nomoi*, although not in everything. In *nomoi*, he thought the only major difference between the two peoples was the Lydian custom of prostituting their wives.

[47]The Babylonians and Illurians by no means had all customs in common, but both peoples sold their women at market as wives.

his own faults with those of his neighbour would do so (7.152). *Nomos* was King, and dictated the actions and perceptions of every ethnic group (3.38).[48]

Herodotus' investigative techniques frequently brought him in contact with personal reports and regional self-definition, both of which he also saw as contributing to the creation of an ethnic identity. To an extent, self-definition was related to *nomoi*, since it was preserved by tradition, and tradition is a key factor in the creation of custom. The Ionians of Asia Minor, though noticeably different from the Greeks of the mainland still retained some of their Greek identity, in part because through tales shared by all the Greeks, "their poets and storytellers held them to their identity under very uncompromising conditions".[49] The Egyptians defined themselves as the oldest race, and their report of Psamettichus' experiment with the babies did little to alter their perception. They admitted that experimentation proved they were not the oldest race, only the second oldest (2.2.2). In fact, their experiment did not prove the latter, but they defined themselves in such terms, and convinced at least Herodotus of the truth of their statement. Herodotus only partially accepted self-definition, however; for example, he expressed grave doubt about the claim of the Sigynnae to be colonists from Media (5.9). He related the reports, because they were the products of investigation, but he used his knowledge to cast doubt upon the truth of the Sigynnae's self-definition.

Both self-definition and *nomoi* were insufficient to provide a complete definition of ethnicity for Herodotus. *Nomos* might be a key means of defining an ethnic group, but it did not cause the creation of that ethnic group. To define the cause and not merely the product of different ethnic groups, Herodotus resorted to "the doctrine of environmental determinism found in some medical writers".[50] Indeed Herodotus believed that environmental determinism did not merely create physical differences between races, but in a tenuous way caused the difference in *nomoi* which helped define the difference.[51] This relationship between environment and *nomos* is most clearly seen in 2.35 where Herodotus says: "The Egyptians (ἅμα) together with their climate which is of a different kind being unique to them, and with their river which is different in nature from all other rivers are contrary to

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[48]Herodotus saw custom as all-important, but the type of custom and its effect upon racial identity and events of history could only, in his eyes, be discovered by investigation. John L. Myres, *Herodotus Father of History*. Oxford: Clarendon Press, 1953, p. 46.

[49]Georges (above, n.27) p.13.

[50]Lateiner, *Historical Method*. (above, n. 5) p.112.

[51]Immerwahr, *Form and Thought in Herodotus*. Philological Monographs 23, APA, Cleveland: Press of Western Reserve University, 1966, p.321.

other people in almost all things, both *ethea* and *nomoi*" (2.35.2).[52] The ἅμα indicates that Herodotus believed that, with the uniqueness of both the climate and the physical environment as symbolised by the river system, the Egyptian customs which helped define their race could not help but be unique also. To an extent Herodotus thought that "the various components of natural environment, such as climate, were the direct, immediate cause of various social phenomena".[53] Herodotus, himself the constant advocate of investigation over theory, had in the end to resort to a theoretical definition for the cause of ethnic individuality. Theory had not triumphed entirely, however, because the theory which he adopted was supported by his investigations, and was not simply drawn out of the air like the doctrine of Ocean.

Nonetheless, as in the case of the Carians and Caunians, theory sometimes controlled the investigation, and thereby influenced the results. These two peoples were essentially similar, sharing both language and approximate location (1.172). Herodotus distinguishes the two, however, in terms of their *nomoi*. As with the Egyptians the *nomoi* were not the causes of the racial difference but helped to define the difference. The *nomoi* which Herodotus chooses to explore in this instance were that the Caunian men, women and children alike held large drinking parties for people of similar age and that the Caunians in a symbolic battle had repelled all foreign gods from their territory and had chosen only to worship their own ancestral gods. These are peculiar *nomoi* on which to focus, but they create a sense of difference between the seemingly similar Carians and Caunians. Because the Carians and Caunians shared essentially the same geographical location, Herodotus had to find an explanation for their ethnic differences. The obvious solution, supported by the claims of both ethnic groups, was that one was indigenous and the other of foreign origin. Over time, however, the new environmental influences had begun to affect the non-native race, so that they had gradually become assimilated. This process had not been completed, however, so that there were still identifiable differences between the two groups of inhabitants.

Although he relied on such an explanation, Herodotus did not agree with the versions supplied by his investigations that the Carians were the natives and the Caunians of foreign extract. Instead he ignored the founding stories of both communities and proposed the

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[52]Αἰγύπτιοι ἅμα τῷ οὐρανῷ τῷ κατὰ σφέας ἐόντι ἑτεροίῳ καὶ τῷ ποταμῷ φύσιν ἀλλοίην παρεχομένῳ ἢ οἱ ἄλλοι ποταμοί, τὰ πολλὰ πάντα ἔμπαλιν τοῖσι ἄλλοισι ἀνθρώποισι ἐστήσαντο ἤθεά τε καὶ νόμους.

[53]M. Marsik, *Natural Environment and Society in the Theory of Geographical Determinism.* Prague: University Karlova, 1970, p.135.

converse, arguing that the Carians not the Caunians were of Cretan extract. This tale was not without support since it was that advocated by the Cretans, but it did not win credence from either of the two parties involved. It fitted better with Herodotus' own idea of world ethnography, however. The Carians were more like the Greeks than the Caunians (1.171). A more credible reason for this similarity than mere accident would be if they had lived in a Greek environment. The characteristics which this previous environment had endowed had not yet been entirely eradicated by migration to new environmental influences. Their migration provides a reason for their apparent similarities to both Greeks and Caunians. Herodotus therefore let theory dictate his investigation.

This theory of environmental determinism, according to which the racial characteristics of a people were determined by the environment in which they lived, became Herodotus' key means for describing the cause, rather than the effect of ethnic difference. For example, the Babylonians persisted as a race, even after they had killed off all their women while besieged by the Persians. More women were sent from neighbouring cities to the area after the siege, to marry with the men there and have children. The Babylonian race continued (3.159). The only two constant factors were place and male parent. When the Scythians and the Amazons married and relocated to an area on the farther side of lake Tanais, however, they formed a new race. They did not remain Scythian, but became Sauromatae (4.114-117). Region rather than patrilineal descent seems to have been the constant determinant of race in Herodotus' eyes.

Van Paassen has argued that Herodotus did not intend to give the impression that human characteristics were determined by geography, claiming that "there was no anthropo-geography aimed at elucidating the influence of nature on man. Man and nature were seen in parallel relationship without the thought arising that nature might be the cause of the parallelism."[54] This is simply not the case. Herodotus evidently believed that humans and nature are in a parallel relationship, but with the natural environment causing parallel characteristics in humans. Those who inhabited regions which had an equitable climate all year round became people of equitable disposition, slow to perform any task. Their calm nature made them more suited to submitting to despotic authority. The Ionians, for instance, enjoyed the best climate of any that Herodotus knew. He considered the areas to the north too hot and wet and, to the south, too cold and dry (1.142). The climate was favourable to

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[54]Christian van Paassen, *The Classical Tradition of Geography*. Groningen: J.B. Wolters, 1957, p.173.

agricultural productivity, as was the soil. Herodotus believed, however, that such geography had to create corresponding characteristics in the people so that an environment which produced everything with little work also created people who were disinclined to do anything. Therefore the Ionian people, who lived under the best physical conditions in the world, were the least powerful and influential of all Greek races (1.143).[55] They were scorned by the Scythians for their slavish nature and their willingness to consent to Persian rule (4.142). The only way for the Ionians to change this slavish nature would be for them to move to a new area. Herodotus reports the tale of Bias of Priene who advocated an Ionian migration to the island of Sardo. He believed that were the Ionians to migrate there, their identity would alter and instead of being an enslaved and slavish people as they would be were they to remain in Ionia, they would be free from slavery and instead "would rule others (1.170.2)."[56] While they remained in Asia Minor, however, they would be nothing but slaves.

All physical conditions, not merely geographical, could effect change in people. Geographical influences could change ethnic characteristics, eventually altering the identity of an entire race, but other conditions could cause less drastic changes. Croesus advised Cyrus to dress the Lydians in women's clothing in order to make them act in a womanly fashion (1.153). The Scythians, by fighting the children of their former slaves with whips rather than swords, reinstated a slavish behaviour in those people, who had begun to take on Scythian characteristics and strength in fighting (4.1-3).

In effect human characteristics corresponded to environmental ones. The best regions of the world which had no defects in productivity or climate produced weak people who would not take full advantage of the opportunities which the topography and climate would have afforded people of more aggressive temperaments. Aggressive people could not inhabit such a land without eventually losing such characteristics. The Ionians were, after all, Greek, but they had lost the power and drive typical of the Greeks. The beneficial excesses of the

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[55]As Heidel pointed out, Herodotus nowhere indicates any essential differences between the various Ionians, which suggests that they were "very much alike." William Arthur Heidel, *The Frame of the Ancient Greek Maps with a Discussion of the Discovery of the Sphericity of the Earth.* History of Ideas in Ancient Greece, American Geographical Society, New York: Arno Press, 1976, first published 1937, p.21. This similarity was at least in part due to climate, since they didn't all share the same ancestry. The term "Ionian", for example was frequently used by the Greeks, even by Herodotus, to apply to all Greeks who lived in Asia Minor, be they Ionian, Aeolian or Dorian. Ethnic origin was secondary to geographical situation. See R.J. Seager and C.J. Tuplin, "The Freedom of the Greeks of Asia: On the Origins of a Concept and the Creation of a Political Slogan," *JHS* 100 (1980) pp.146-147.

[56]ἄρχοντας ἄλλων.

geography of coastal Asia Minor caused similar excesses in the character of the inhabitants, but where the excesses were advantageous in the environment, they were detrimental in the people.

In the closing words of his *Histories* Herodotus records Cyrus' words: "people tend to become soft from soft lands; for it is not the property of the same land to produce wonderful fruit and men good in war.(9.122.3)".[57] By saying that the Persians admitted the truth of these words, Herodotus makes it clear that he thought that Cyrus stated a universal truth, and not merely his personal opinion.[58] Like many other Greeks, Herodotus believed in an anthropo-geography where human characteristics were dictated by their natural surroundings. The surroundings created corresponding characteristics in humans but with opposite effects. Whereas softness in climate is an asset, softness in humans is a detrimental quality. Consequently humans are forced by the geography to adopt characteristics which will compensate for those of the geography, so that the balance in nature is maintained.

Obviously, just as geography dictated human characteristics to help offset any excess in nature, it did so also to compensate for a deficiency. Demaratus, a Greek, declares to Xerxes that "in Greece poverty is our companion from birth, but courage is acquired being produced from wisdom and from strong law. Using courage, Greece wards off poverty and tyranny (7.102.1)."[59] The relationship between physical geography and human characteristics is less clearly stated than at the close of the *Histories*, but even here Herodotus intimated that the valour of the Greeks was a compensation for the poverty of their country. This characteristic applies only to those who lived on the Greek mainland. The Ionians, Greek in origin, had not felt this natural force, because their environment demanded an opposite form of compensation. The Spartan Kings on the other hand, whom Herodotus believed to be Egyptian in origin (6.53), did become known for their valour. Leonidas' actions at Thermopylae are at the heart of one of the most famous parts of Herodotus' *Histories*. When the other Greeks wished to leave in fear, once they knew that the Persians had bypassed their blockade, he stayed with a select group of 300 Spartans and fought to the death to guard the way into Greece (7.204-226). These kings may have been Egyptian by descent, but they had

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[57]φιλέειν γὰρ ἐκ τῶν μαλακῶν χώρων μαλακοὺς ἄνδρας γίνεσθαι · οὐ γὰρ τι τῆς εἶναι καρπόν τε θωμαστὸν φύειν καὶ ἄνδρας ἀγαθοὺς τὰ πολέμια.

[58]Lateiner, *Historical Method.* (above, n. 5) p.49.

[59]τῇ Ἑλλάδι πενίη μὲν αἰεί κοτε σύντροφός ἐστι, ἀρετὴ δὲ ἔπακτός ἐστι, ἀπό τε σοφιής κατεργασμένη καὶ νόμου ἰσχυροῦ· τῇ διαχρεωμένη ἡ Ἑλλὰς τήν τε πενίην ἀπαμύνεται καὶ τὴν δεσποσύνην.

become truly Greek in nature. Geography superimposed new racial characteristics over old ones.

There are examples throughout the *Histories* of such anthropo-geography. The Persians did not merely become soft in character when they over-expanded into the soft lands, but in fact became soft in physique as well. Herodotus comments that their skulls were paper thin, whereas the Egyptians had heads so hard that they could not be crushed because they had been baked by the sun (3.12). Herodotus describes the Ethiopians, Indians, Pygmies and Egyptians as black, perhaps indicating that he believed all who lived in hot countries must be dark-skinned.[60] Descriptions of physical traits are not as common in the *Histories* as those of custom, but they are nonetheless still obviously one of the characteristics of race determined by environmental influence. Environment changed all aspects of humans. Herodotus does not, however, raise any "questions as to how soon nature may remould people in the native likeness".[61] Under different environmental influences, peoples' racial characteristics and loyalties could change. The Athenians who were originally Pelasgian not Greek, became Greeks rather than Pelasgians when their language changed.[62] The Spartan Kings also came to be considered Greeks rather than Egyptians (6.53).

Herodotus gives us an insight into how he thought such changes took place in his discussion on the people of Marya and Apis. These people, although Egyptian, did not consider themselves as such. They lived outside the Nile Delta and their culture had become very different from that of the Egyptians. At length they felt themselves estranged from the rest of Egypt. In particular they wished to be permitted to eat cows, a practice forbidden by the Egyptian religion. They applied to the oracle to permit this (2.18). These people lived in a slightly different geographical zone than the other Egyptians, and were therefore under different geographical influences. The pressures from nature were such as to make them have

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[60]See 3.101 (Indians and Ethiopians), 2.33 (Pygmies) and 2.57 (Egyptians). The last is the least direct comment. Herodotus assumes that the so-called pigeon who was said to have determined the site of the Oracle at Dodona was in fact a woman, called a pigeon because "the Greeks likened the woman's barbaric speech to the twittering of a bird," (Benardete, p.50) (βάρβαροι ἦσαν, ἐδόκεον δέ σφι ὁμοίως ὄρνισι φθέγγεσθαι) and that "saying that the pigeon was black signified that the woman was Egyptian" (μέλαιναν δὲ λέγοντες εἶναι τὴν πελειάδα σημαίνουσι ὅτι Αἰγυπτίη ἡ γυνὴ ἦν).

[61]Terrot Reavely Glover, *Herodotus*. Freeport, New York: Books for Libraries Press, 1969, first published 1924, p.160.

[62]See Henry Wood, *The Histories of Herodotus: An Analysis of the Formal Structure*. Mouton: The Hague Press, 1972, p.40.

"nothing in common with Egypt (2.18),"[63] for since the geographical nature of the area was not the same as that of the Nile Delta, the readjustment in human characteristics would similarly be different. Eventually, these people became so altered that they did not even wish to maintain the religious *nomoi* common to the rest of their race. By renouncing their *nomoi*, they were rejecting the Egyptian tradition and one of the defining factors of being Egyptian. Gradually they were becoming a different people.[64] In the eyes of the oracle, however, they were still Egyptian. Herodotus gives no indication at what point he thought that the transition into being a different race took place.

In resorting to this doctrine of environmental determinism, Herodotus unusually found himself in agreement with some of his contemporaries. Some of the sophistic writers such as Protagoras and Hippias espoused this idea,[65] but it is in the Hippocratic writings that it becomes most clearly evident. The impact of the geographical environment on "the two most prevalent maladies" of Hippocrates' time, namely malaria and respiratory diseases, was painfully apparent.[66] From there it was a short step to the kind of environmental determinism illustrated by the treatise *Airs, Waters, Places* which studied the effect of climate and topography not only on people's health, but on their entire character.[67]

There are so many similarities between Herodotus' views and those of the author ofHippocratic treatise *Airs, Waters, Places*, that many have postulated a direct correlation between the two works.[68] Much Herodotean scholarship has argued that Herodotus had read the *Airs, Waters, Places* and had drawn his ideas on ethnographic determinism therefrom. Jacoby accounted for the similarity between the two works by arguing that both scholars

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[63]οὐδὲν σφίσι τε καὶ Αἰγυπτίοισι κοινὸν εἶναι.

[64]Similarly the Greek people of the Geloni who had moved to inhabit a Scythian region had settled among the Budini. Their language was half Budini, half Greek, their culture a similar muddle. They had not yet adapted entirely, although people had already begun to refer to both races as one (Hdt.4.109).

[65]Lateiner, *Historical Method.* (above, n. 5) p.49.

[66]Felix Marti-Ibanez, *Centaur; Essays on the History of Medical Ideas.* New York: MD Publications Inc., 1958, p.338.

[67]Marti-Ibanez (above, n. 66) p.338. Marti-Ibanez cites *Airs, Waters, Places* along with the "medicogeographical notes in Books 1 and 3 of [the Hippocratic text] *Epidemics*" as the key classical texts to focus on this idea.

[68]E.g. Jacoby and Heidel - see chapter 2, n. 113; also K.H. Waters has posited a common source but, unlike the other two does not identify it with Hecataeus. Waters, *Herodotus the Historian, his Problems, Methods and Originality.* Norman, Oklahoma: University of Oklahoma Press, p.19

relied on the same earlier author, probably Hecataeus, for their ideas. Hippocratic scholars, more interested in studying the medical theories of the essay and in placing it into a medical tradition, have been less concerned with drawing exact lines of thought between Herodotus and its author.[69] Their research, however, has indicated that the treatise was quite probably a genuine work of Hippocrates and was almost certainly one of the earlier writings of the Hippocratic corpus.[70]

The author of *Airs, Waters, Places* states that "climates differ and cause differences in character; the greater the variations in climate, so much the greater will be differences in character (13)."[71] This author does not restrict his ideas of ethno-determinism to the effects of climate, but thinks that all aspects of a human's environment will affect the nature of the person who lives there. For example, he claims that brackish water creates splenetic people (24). He tends to generalise much more than Herodotus, focusing on generic continental groups such as the Asians and the Europeans rather than on specific ethnic communities, but in the case of the Scythians, he shows how a specific environment could create specific racial characteristics. He describes the Scythians as ruddy in complexion because the cold, not the sun, burnt and reddened their faces (21).

While Herodotus comments on few of the physical characteristics of the Scythians, or indeed of any other race,[72] both he and the Hippocratic writer provide similar descriptions of the Scythians which demonstrated that the Scythians had evolved ways of living which differentiated them from other people, and were ideally suited to their environment. To them as to the author of the *Prometheus Bound*, Scythia was known as a vast tract of land, broken only by rivers. The description of the nomadic Scythians whose wagons were their homes, in

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[69]See e.g. James Longrigg, *Greek Rational Medicine, Philosophy and Medicine from Alcmaeon to the Alexandrians.* London: Routledge, 1993 who discusses both Herodotus and the Hippocratic authors' explanations of Scythian impotency, but draws no connection between the two (pp.36-38); and G.E.R. Lloyd who in all his work on Hippocratic medicine, nowhere mentions a direct correlation between the two.

[70]See É. Littré, *Oeuvres Complètes d'Hippocrate.* Vol 1, Amsterdam: Adolf M. Hakkert, p.332; G.E.R. Lloyd, "The Hippocratic Question." in *Methods and Problems in Greek Science.* Cambridge: Cambridge University Press, p.202.

[71]αἱ γὰρ ὧραι αἱ μεταλλάσσουσαι τῆς μορφῆς τὴν φύσιν εἰσὶ διάφοροι. ἢν δὲ διάφοροι ἔωσι μέτα σφέων αὐτέων, διαφοραὶ καὶ πλείονες γίνονται τοῖσιν εἴδεσιν.

[72]Alan B. Lloyd, "Herodotus on Egyptians and Libyans," (above, n. 1) p.221. Indeed, as Flory points out, one of the ways in which Herodotus avoided the same over-simplification of racial formation that is found in *Airs, Waters, Places*, was by stressing the ethical differences between races, over the physical ones. Stewart Flory, *The Archaic Smile of Herodotus.* Detroit: Wayne State University Press, 1987, p.89.

all three texts, shows how the Scythians had developed a life-style which fitted their habitat.[73] Herodotus, however, goes one step further than either of the other authors. He states that the Scythians were the youngest race, and had evolved from a people who had migrated to the area (4.5). The Scythians had become Scythian, evolving into a distinct race with its own characteristic customs which were suited to the environment, only when they reached the territory that created that race.

By contrast, it seems important to Herodotus who believed that the Egyptians were one of the oldest races (2.2-3), to stress that their land was also old. By personal investigation, he proved the truth of Hecataeus' remark that the Delta was the gift of the Nile. It was patently a new terrain (2.5-15). Herodotus denies that there could be Egyptians proper unless there was an Egypt, since he believed that racial identity was ultimately created by environment. His investigations at the temples had seemed to him to prove the great age of the Egyptians. Since the Egyptians were therefore obviously an ancient race, their geographical environment must be equally ancient since they could not predate their territory. Indeed, the Egyptians were one of the few people whom Herodotus considered native to their place, not reshaped by their environment, but determined by the same environment right from the outset. The *nomoi* which he focuses upon for the Egyptians are their religious customs. By concentrating upon the religious *nomoi*, not those of the *oikos* as he did with the majority of other races, Herodotus seems to link the Egyptians back to a Hesiodic golden age where gods and men walked together. In so doing, Herodotus reinforces his theory about the age of the Egyptians; a theory which he then uses to discount contemporary geographical perceptions about the Delta.

In dealing with so many specific cases, Herodotus differs greatly from the author of *Airs, Waters, Places* although both use environmental determinism. Herodotus uses anthropo-geography to establish the causes of difference between various communities; the Hippocratic author employed the same process to discover sources of similarities between inhabitants of whole continents, asserting, for instance, that "concerning the spiritlessness of the [Asiatic] men and their cowardice, the seasons which are always about the same, changing little, becoming neither hot nor cold, are the principal reason that the Asiatics are more unwarlike than the Europeans" (*AWP* 16).[74] Where Herodotus individualises the

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[73]See *Airs, Waters, Places* 15, *PV.* 707-711 and *Hdt.* 4.46.

[74]περὶ δὲ τῆς ἀθυμίης τῶν ἀνθρώπων καὶ τῆς ἀνανδρείης, ὅτι ἀπολεμώτεροι εἰσι τῶν Εὐρωπαίων οἱ Ἀσιηνοὶ.

various inhabitants of Asia, showing clearly, for example, the different characteristics of the Ionians, the Lydians and the Persians, the author of *Airs, Waters, Places* has the same tendency as Aeschylus to amalgamate all the inhabitants of Asia into a single unit.[75] The theoretical process in the medical treatise is similar to that of Herodotus, but the mind-set behind it belonged to the mainstream thought which Herodotus was denying. Racial bias did not delude Herodotus to the same extent as it had the author of *Airs, Waters, Places*.

The influence of the same kind of conviction in Greek racial superiority as Aeschylus extended still further in this treatise. Like Herodotus, the Hippocratic writer refers to *nomos* in the identification of racial characteristic, but where Herodotus sees *nomos*, as at least in part influenced by environment, the Hippocratic writer speaks of it as independent of environment. He sees the *nomos* of willing adherence to despotic rule as a crucial cause of Asiatic feebleness (16). Although he adopted a doctrine of environmental determinism which for the most part pervades the entire *Airs, Waters, Places*, this theory is weakened in his discussion of the causes of the absolute differences between Asiatics and Europeans.

Herodotus, in part because he dealt with more restricted groups of people who had a common ethnic background, rather than people who did not even share a racial identity,[76] is more consistent though less explicit in his use of environmental determinism. He does not always show *nomos* as a result of environmental determinism, but nor does he ever portray it as an entirely separate cause from the environment. Herodotus comments on the monarchical system of many of the communities which he studied, but there is a suggestion in the text that

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[75]The Hippocratic author, far more than Herodotus, shows an ethnocentric conception of the world. He begins by claiming that the differences between the various ethnic groups could be attributed to climatic difference. By the end of the thesis, however, he has amalgamated Asia into a single region, ignoring the huge variations in climate and geography in this region. He explains instead that the Asians are cowardly and easy-going and relatively uniform in appearance compared to the Europeans, as a result of the small climatic changes throughout the continent. The people of Europe, however, are aggressive and quick thinking. They differ greatly from one another but also from the Asiatics as a result of the great changes in climate from time to time and place to place. Though he talks about all of Europe, he clearly thought of the Greeks as the key Europeans. He separated off the Scythians from the other Europeans by discussing their stolid, unchanging disposition. The result is that the impression one gets when he talks of the Europeans is of the Greeks. Everyone else is barbarian. Unlike Herodotus, he was not truly interested in discussing the individual characteristics of each race. See Wilhelm Backhaus, "Der Hellene-Barbaren-Gegensatz und die Hippokratische Schrift, 'Αέρων 'Υδάτων Τόπων," *Historia* 25 (1976) pp.170-185.

[76]Here I use racial in the modern sense of the word, meaning a collective of various ethnic identities who are "regarded as having a common origin and exhibiting a relatively constant set of physical traits"(Funk and Wagnalls. *Standard Dictionary*. New York: Harper Row, 1993).

submission to a tyrant was a matter of choice rather than a direct cause of national character (3.80-83). That a race would chose to acquiesce to despotic rule, however, was a result of character determined by the environment.

On occasion, however, Herodotus is blind to the effects of climate and environment on a people. He seems to have met various Greeks in Egypt from whom he learnt much about Egypt. Indeed, he states that Psammetichus provided some Ionians and Carians with land in Egypt. He then sent Egyptian boys among them to learn the Greek language. In other words, instead of the Greeks becoming incorporated into the Egyptian race, the Egyptians actually learnt some of the customs of the Greeks. The Greeks clearly did not become entirely assimilated into their new environment (2.154). Similarly Herodotus mentions Greeks who acted as interpreters in Persia (e.g. 3.140). To some extent they too must have retained their own ethnic identity under the pressures of a new environment, but in both cases Herodotus tends to overlook their ethnic differences from those of their neighbours. He mentions both groups only in passing, and thereafter they faded from his text. In another example of that deliberate blindness which he demonstrated when talking about the west of Europe, he simply glossed over references to people who did not fit his idea of environmental determinism. In both these instances the reader is barely aware that Herodotus must have gained at least some of his information about the Egyptians and Persians by means of Greek interpreters. Within regional boundaries Herodotus downplays ethnic difference and instead gives an impression of racial homogeneity.

Herodotus enjoyed investigating other communities, but although intrigued by the variety among human beings, he he does not seem to have felt the need ever to learn another race's language. Instead he relied upon those very interpreters whose existence did not accord well with his theories of environmental determinism. Through them he learnt about other peoples and found support for his theory that each race belonged to a specific region, and had characteristics which were formed to counteract those of the geography of a particular area. Even the author of the Hippocratic treatise, *Airs, Waters, Places*, who had adopted a similar idea of anthropo-geography, did not expound it on the distinct regional level which Herodotus proposed. The Hippocratic author had followed the mainstream of popular ethnographic belief so strongly represented by Aeschylus' *Persae*, and effectively used the theory of environmental determinism to reinforce the idea of a Greek-barbarian polarity. Herodotus stood apart from this stream of thought, and instead used the same theories to account for the massive diversity among all ethnic groups.

Conclusion

When Herodotus wrote his *Histories* in the latter half of the fifth century BC at the time of the Peloponnesian wars, he set Greek geographical literature in a new direction. Virtually all earlier geographical writing discussed not only the *oikoumene*, but the whole world in its cosmological setting. Even Homer who was, like Herodotus, principally interested in the geography of the *oikoumene*, placed this geography into a universal context. He spoke of the vault of the heavens, of the turning of the stars, of the edges of the whole earth, of the path of the sun. Herodotus, by contrast, has little or nothing to say about the sun, moon, stars and planets, the world beyond the *oikoumene*. His interest lay in humans and their immediate physical environment, a topic that could not be studied separately from history, to his mind. The human world was governed by inviolable laws that originated in nature. As many authors, particularly Immerwahr, Flory and Gould have pointed out, ideas of symmetry, reciprocity and opposition run throughout the *Histories*, uniting the disparate ideas by a coherency of thought which lies behind them.[1] These themes pervade Herodotus' geographical concepts no less than they do other aspects of his work. In a sense they are what unite his geographical theories into a single world view. They help bind together his geographical, historical and ethnographical ideas. The themes of reciprocity, symmetry and limit, which were connected with Herodotus' ideas of natural law pervade the work, providing a coherency of thought to the disparate tales of far-flung societies and great wars. Herodotus removed the study of geography from its cosmological setting and concentrated instead on geography as a social science, focusing on the interrelations between humans and geography.[2]

In his study of the geography of the *oikoumene* Herodotus accepted much of the general geographic knowledge, but he relied upon the details not the theories of earlier writers. Aristeas, the earliest of the writers to travel and place emphasis on investigative knowledge provided material for Herodotus' discussions of Northern Europe. Aristeas' reports are, however, intermixed with obvious fables such as the stories of gold-guarding

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[1]See Henry R. Immerwahr, *Form and Thought in Herodotus*. Philological Monographs 23, APA, Cleveland: Press of Western Reserve University, 1966, passim, and "Aspects of Historical Causation in Herodotus," *TAPA* 87 (1956), passim. Also Stewart Flory, *The Archaic Smile of Herodotus*. Detroit: Wayne State University Press, 1987, and John Gould, *Herodotus*. London; Weidenfeld and Nicolson, 1989.

[2]See Christian van Paassen, *The Classical Tradition of Geography*. Groningen: J.B. Wolters, 1957.

griffins and one-eyed Arimaspasians, which Herodotus found incredible. He believed that there ought to be marvellous creatures on the outskirts of the world, but some of Aristeas' tales challenged his ability to believe. Fraudulence may be at the roots of some of Aristeas' stories, but with their ostensible foundation in investigation, they acted as transition between the legends of Homer and the reports of the logographers. Hecataeus, one such logographer, also placed emphasis on the importance of empirical knowledge. He was the first to describe many of the societies, such as those of the Egyptians and the Libyans, which also featured prominently in the *Histories*. Like Herodotus he was writing in an age when trade and increased communications throughout the Mediterranean and the Black Sea had brought information about a variety of other cultures to the Greek world. Hecataeus, living in Miletus which was at the hub of a great trading empire, was able to glean information from far-flung areas of the earth. Like Herodotus, he was able to travel to foreign countries and to observe life there. Eventually he compiled the results of his investigations into a *Περίοδος Γῆς*. This work, now entirely fragmentary and consequently difficult to analyse in any detail, seems to have acted as a source for information about specific people and places for Herodotus. Herodotus, however, focused upon the details of his predecessors' works which seemed to be founded upon empirical knowledge rather than upon theory.

In the majority of his explicitly geographical excursuses Herodotus calls into question much of the popular geographical thought. He mocks the long-held theory that the earth was surrounded by water, because he can find no evidence to support such a claim. He set himself in conflict with the mainstream of popular geography, however, when he queried the existence of Ocean. Since the time of Homer, the idea that the world was surrounded by Ocean had become one of the key ideas of Greek geographical thought. More recently, after the work of the sixth century philosopher Anaximander and later of Hecataeus, the notion that the world was divided into two mirror-image continents had also become part of Greek geographical lore. Herodotus, however, denies both these ideas, since no investigative knowledge gave proof to either one.

Herodotus' rejection of these ideas is probably rooted in a healthy suspicion of theory. He mocks earlier writers for their adherence to the idea of an essential symmetry in the world because their ideas were too obviously founded on theory. A purely symmetrical relationship of one continent to another, where the one was mirrored by the other, was not supported by the geographical facts as Herodotus perceived them. Nonetheless, Herodotus himself succumbed to theory in explaining the geography of the world and the relationship between geography and humans. "The *Histories* offer a representation of the world which is

organised around a spatial code.... It is not a code intended for the discursive mode, and it remains largely implicit."[3] This code was founded on an idea of symmetry, but unlike that proposed by Anaximander, it was a hidden symmetry. Europe did not have its symmetrical counterpart in Asia, but Asia and Africa combined did counterbalance Europe. On the whole, however, Herodotus was not interested in the great symmetrical patterns of continents and of the cosmos in general, whose extents were far outside the realms of the *oikoumene*. Instead he restricted his investigations, for the most part, to patterns visible within the inhabited world. To do so, however, he had first to define the limits of this world. Herodotus believed in the interplay of opposites throughout the world. The northern *eremos* created by the extremes of cold, found its counterpart in the southern *eremoi* formed by extremes of heat. Together they created a form of symmetry in the world.

Although Herodotus opposed many of the depictions of the world of the existing maps, he still accepted the idea of symmetry that was fundamental to them. His portrayal of the boundaries reflects this belief. He thought that the extremes of climate at the edges of the world counterbalanced one another, and so maintained the over-all equilibrium of nature in the world. The Northern boundary was a territory where it was reported that the air and land are always filled with feathers (4.7). Herodotus believed that these reports indicated that the there was always snow in this region (4.31). The southern limit of the *oikoumene* was formed by desert (4.181). The extreme cold of one climate was counteracted by the extreme heat of the other. Although the types of extreme differ, the fact that all boundaries were seen as extreme in nature created a type of symmetrical pattern.[4] As the boundaries of the world, they formed the limits which created the symmetrical shape of the world.

Herodotus' adherence to the doctrine of symmetry is most apparent in his discussion of the courses of the Nile and the Danube (2.33). He estimated, by creating an imaginary line running from Egypt to Scythia, through Cilicia and Sinope, that the mouth of the Nile lay directly opposite that of the Danube. He thought that the source of the Danube was at Pyrene, and, using his knowledge of the Danube, believed that he could determine the length of the Nile as well, since because of the essential symmetry of the world, the two rivers must be the same length. He even believed that "the courses of the two rivers exactly corresponded"[5],

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[3]François Hartog, *The Mirror of Herodotus, the Representation of the Other in the Writing of History*. Janet Lloyd trans., Berkeley and Los Angeles: University of California Press, 1988, p.359

[4]See Hartog, passim, e.g. p.4.

[5]William Arthur Heidel, *The Frame of the Ancient Greek Maps*. History of Greek Ideas,

one heading north, the other south before turning west.

This belief in symmetry was not, however, apparent only in such specific instances, but extended throughout the work. All the *eschatai* regions, the lands bordering on these limits of *eremoi* were liberally endowed with the finest products of the world. The inhabitants of these regions were, to an extent, dehumanised. To survive in the harsh climates that prevailed in the outskirts of the world, they had to adapt and became such people as seemed to the Greeks more mythical than real. There was, however, a hidden equality. Their native climate might be harsh, their territory hostile, but they had certain advantages which were unknown at the centre of the world.[6] The balance extended beyond the regional borders. "The outermost areas of the inhabited world have obtained the best things by fate, whereas Greece has obtained the seasons tempered in much the best way (3.106)."[7] The world itself was in an absolute balance; the physical geography was favourable in some aspects, and in others unfavourable, so that no single region could enjoy good climate, fertile soil and abundant natural resources. He thought that "no country is sufficient, providing all things for itself, although it has some things, it lacks others; whatever land has most things, this is the best land (1.32)."[8]

A certain balance existed between the extremes and the centre. In a sense, this balance was part of the theme of reciprocity which so many authors have isolated as a key to the thought pattern governing the *Histories*. As compensation for their dehumanising environment, the *eschatai* regions received the best products. Similarly the central regions of the world which had the best climates, were poorly endowed with raw materials. This reciprocity extended still farther. The harsher lands supported stronger people, the softer ones weaker people. The regions at the outskirts of the world were extreme in nature, supremely hot or dry or cold or snowy, but also rich beyond all belief, containing gold, spices, amber and luxuries of every kind. To compensate for the wealth of luxuries available in such

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American Geographical Society, Arno Press: New York, 1976, first published 1937, p.25.

[6]See Flory, p.39.

[7]Αἱ δ' ἐσχατιαί κως τῆς οἰκεομένης τὰ κάλλιστα ἔλαχον, κατά περ ἡ Ἑλλὰς τὰς ὥρας πολλόν τι κάλλιστα κεκρημένας ἔλαχε. When Herodotus talked about the remotest regions of the world at this point, he seems to have meant the remotest regions of the *oikoumene*, not of those lands which lie on the extreme periphery of the world, making a boundary to the world. These latter lands as he described them, were favourable neither in resources nor in climate.

[8]ὥσπερ χώρη οὐδεμία καταρκέει πάντα ἑωυτῇ παρέχουσα, ἀλλὰ ἄλλο μὲν ἔχει, ἑτέρου δὲ ἐπιδέεται· ἣ δὲ ἂν τὰ πλεῖστα ἔχῃ, αὕτη ἀρίστη.

regions, however, there was a difficulty of access to the wealth. Any who wished it had to battle monstrous creatures: giant ants, flying snakes, griffins. Those who lived in such an area and braved such beasts became barely human themselves. It was in these regions that the man-eaters, the pygmies, the one-eyed-Arimaspasians lived. Their natures counterbalanced their environments, but also the natures of those living in comparative ease at the central regions of the world. No Persian or Greek was adapted to live in the hot climates of southern Egypt or Eastern India, or in the cold climates of the territories of the Issedones, the Androphagi and the Arimaspasians. These regions and their inhabitants acted as a limit to the human world. To adapt to survival in such regions one had to become barely human. No-one, however, could survive in the *eremoi* regions which lay beyond these *eschatiai* areas.

Herodotus described this balance of nature in geographical terms, but, in fact, saw it in human ones. Balance was created between different aspects of the physical environment, yet it was humans who felt the effects of this balance. The earth had no needs, it was humans who had needs, and who found that no single area of the world could supply all these needs. The balance in nature, however, not only dictated the extent to which a single area could supply human needs, but also ordained the very nature of the humans who inhabited such an area.

To maintain the inherent balance in the world each race was adapted to live in its own area, and its own area alone. The extent of any race or ethnic group's territory was marked by natural, geographical boundaries such as deserts or rivers. When they ventured beyond their own boundaries, they were upsetting the balance in the earth, since their racial characteristics were formed to counteract the specific geographical features of their region, and at the same time, they were proving themselves contemptuous of nature. In defying the natural limits they were attempting to exert human authority over nature. Repercussions were inevitable. In fact, any time humans tried to exert their superiority over nature be it by setting their own non-natural limits by building walls and ramparts, or by trying to alter nature for example , by building bridges and canals, they earned retribution. They were trying to gain more than was rightfully theirs, and in a sense were upsetting the equality in nature.

Herodotus believed that no one people could have everything. Each race adapted to its native environment. The Ionians who had the best climate in the world became, correspondingly one of the softest people in the world; their characteristics altered to counteract those of their climate. Environmental determinism prevented any one region from having both the best humans and the best environment and resources. Humans were not merely affected by the reciprocity in nature, but indeed, were part of the balance in nature.

No region could have everything. Just as the outermost regions were compensated for their harsh environments by their great wealth of valued products, so the humans living in the harsher climates were compensated for their difficulties in eking out a living by the strength of racial characteristics which they developed.

At a time when the majority of the Greeks were convinced that they were a superior race, and all non-Greek speakers were uniformly inferior and barbaric, Herodotus propounded a specific theory of environmental determinism. Where his contemporaries such as Aeschylus in the *Persae*, downplay ethnic difference among other races, Herodotus focuses upon it. The Hippocratic author of *Airs, Waters, Places*, for example, finds in environmental determinism an explanation for racial similarity, and uses it to support the idea of a polarisation between Greeks and barbarians. By contrast, Herodotus studies the impact of environment on people on a more regional scale than the Hippocratic author and finds in it an explanation for racial difference.

When a race invaded a territory beyond its own boundaries, it was upsetting the equilibrium in nature and defying the natural laws. A race might, particularly with permission from the Delphic Oracle, migrate to a new region, but in a sense, when doing so, it was giving up its own racial status by submitting to new environmental influences. Over time, as in the cases of the Scythians, the Carians and the Pelasgians they became new races, quite different from the old. In Herodotus' day the Ionians, for example, although still identifiably Greek in language, having migrated to Asia Minor, were already seen to have taken on Asiatic characteristics such as slavish adherence to despotic authority. Migration involved a change in racial identity, but it did not involve the penalties that crossing a natural boundary in attack demanded. Cambyses fought a futile campaign after crossing the desert boundary into Egypt, and eventually paid for his aggressive campaign with his life. Darius and Xerxes, having crossed the Danube and the Hellespont respectively in attack, both barely made it back to Asia Minor, their armies decimated. Croesus crossed the Halys river to attack and destroy the Persian empire, but his aggressive act rebounded on himself. He saw not the Persian but his own empire destroyed.

In delving into ideas of environmental determinism, of boundaries and limits, of retribution and reciprocity, of symmetry and equilibrium, Herodotus extended his geographical beliefs well beyond that of pure investigation. Investigation formed a guideline for his studies, and a basis for his rejection of other peoples' ideas. But, although in his strictly geographical excursuses he uses the lack of investigative knowledge as ground for refuting existing ideas, in other areas where his geography became more intertwined with

ethnography and history, he applied his own theories as well as investigative knowledge in the writing of his book.

Herodotus' theories were universal. Every nation was determined by its own environment, and was restricted to that environment by natural boundaries. No nation had the right to extend despotic rule over another because in so doing it was defying the natural boundaries of its region, and breaking the natural laws. It was also upsetting the equilibrium in nature and the equality between races. Herodotus saw these theories as working in the events leading up to the defeat of the Persian empire by the Greeks, but they were not restricted to that period. When Herodotus was writing, the Peloponnesian wars were at their height; Athens and Sparta were engaged in a bitter dispute for power and territory which had swept much of Greece into a state of war. Athens, like Persia half a century before, had a reputation for πολυπραγμοσύνη and πλεονεξία.[9] It was empire building, and endeavouring to extend its rule beyond its own natural boundaries. Athenians frequently crossed beyond their own natural limits in aggression. Herodotus' view of the natural boundaries which dictated the limits to expansion may have been governed by his belief in the inherent right to freedom, which seems to have been common in Greek thought. Although in his *Histories* the Lydians and the Persians were the key races who were trying to defy nature and expand beyond their legitimate domain, the lesson which they learned may have been one which he desired both the Lacedaemonians and Athenians to comprehend: namely, that no race could transgress its natural boundaries without suffering retribution; nor could it rely on boundaries of its own making, for such limits were ineffective and easily destroyed. His geographical theories were not just tied to the past and to his story, but taught a lesson that humans, their environment and their history, were inextricably intertwined.[10]

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[9]Kurt A. Raaflaub, "Political Thought and the Meaning of History," *Arethusa* 20, 1 & 2 (1987) p.227.

[10]See Raaflaub, passim, and J.A.S. Evans, *Herodotus Explorer of the Past*, Princeton: Princeton University, 1991, Chapter 1, especially pp.38-40. [10]See Henry R. Immerwahr, *Form and Thought in Herodotus*. Philological Monographs 23, APA, Cleveland: Press of Western Reserve University, 1966, passim, and "Aspects of Historical Causation in Herodotus," *TAPA* 87 (1956), passim. Also Stewart Flory, *The Archaic Smile of Herodotus*. Detroit: Wayne State University Press, 1987, and John Gould, *Herodotus*. London; Weidenfeld and Nicolson, 1989.

[10]See Christian van Paassen, *The Classical Tradition of Geography*. Groningen: J.B. Wolters, 1957.

[10]François Hartog, *The Mirror of Herodotus, the Representation of the Other in the Writing of History*. Janet Lloyd trans., Berkeley and Los Angeles: University of California Press, 1988, p.359

His interest in geography was not curtailed to such a subject, however. He was an explorer and wished to present his discoveries. His research had led him to believe that the existing maps of the world were all invalid, based more on theory and mythology than truth, but though he rejected the existing theories, he himself formed an image of the world from a theoretical basis. His studies indicated to him that natural laws created a hidden symmetry and a certain equilibrium in the world. Humans, as part of nature, were affected by the geography of the world, their racial characteristics determined by their geographic environment. Although Herodotus viewed the geography of the world in human terms, he thought that the law of nature, not human law was supreme. Humans could decide whatever they wished, but ultimately they were governed by nature, and could not be masters of it.

Geography was, for Herodotus, a social science which could enable one to study humans in their world, the interconnection of humanity with human environment, and how this interconnection was governed by natural laws. The geographical facts could be discovered by investigation, but to examine how the geography interacted with humanity and affected the events of human history, Herodotus although purporting to be an investigator, turned to theoretical explanations. He realised the importance of investigation and the over-reliance on theory of many of his fellow Greeks. Therefore when he thought consciously about theory as was the case in his specifically geographical excursuses, he attacked the unsubstantiated ideas of previous geographical writers. He was, however, a product of his own times; his book did not merely involve lessons for his contemporaries, but, in part,

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[10]See Hartog, passim, e.g. p.4.

[10]William Arthur Heidel, *The Frame of the Ancient Greek Maps*. History of Greek Ideas, American Geographical Society, Arno Press: New York, 1976, first published 1937, p.25.

[10]See Flory, p.39.

[10]Αἱ δ' ἐσχατιαί κως τῆς οἰκεομένης τὰ κάλλιστα ἔλαχον, κατά περ ἡ Ἑλλὰς τὰς ὥρας πολλόν τι κάλλιστα κεκρημένας ἔλαχε. When Herodotus talked about the remotest regions of the world at this point, he seems to have meant the remotest regions of the *oikoumene*, not of those lands which lie on the extreme periphery of the world, making a boundary to the world. These latter lands as he described them, were favourable neither in resources nor in climate.

[10]ὥσπερ χώρη οὐδεμία καταρκέει πάντα ἑωυτῇ παρέχουσα, ἀλλὰ ἄλλο μὲν ἔχει, ἑτέρου δὲ ἐπιδέεται· ἣ δὲ ἂν τὰ πλεῖστα ἔχῃ, αὕτη ἀρίστη.

[10]Kurt A. Raaflaub, "Political Thought and the Meaning of History," *Arethusa* 20, 1 & 2 (1987) p.227.

[10]See Raaflaub, passim, and J.A.S. Evans, *Herodotus Explorer of the Past*, Princeton: Princeton University, 1991, Chapter 1, especially pp.38-40.

evolved out of contemporary interests. The growing interest in geography and exploration provided material for Herodotus' work. At the time when he was writing, theory was a fundamental aspect of Greek intellectual culture. The doctrine of symmetry and opposition, and the ideas of limits and boundaries which are so apparent in Herodotus' work, pervade much of Greek literature of the period. Philosophers, medics and playwrights all held such theories. It is therefore not surprising that Herodotus, although seeing the merits of investigation, succumbed partially to the influence of contemporary thought, and augmented his researches with theory. He rejected ideas that he was conscious were founded upon unsubstantiated theory, but underlying his work was a dependence on that same theoretical approach to framing an explanation that characterised the intellectual culture of his time.

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