ANCIENT *Astrology*

TAMSYN BARTON

ROUTLEDGE

ANCIENT ASTROLOGY

SCIENCES OF ANTIQUITY
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Sciences of Antiquity is a series designed to cover the subject matter of what we call science. The volumes discuss how the ancients saw, interpreted and handled the natural world, from the elements to the most complex of living things. Their discussions on these matters formed a resource for those who later worked on the same topics, including scientists. The intention of this series is to show what it was in the aims, expectations, problems and circumstances of the ancient writers that formed the nature of what they wrote. A consequent purpose is to provide historians with an understanding of the materials out of which later writers, rather than passively receiving and transmitting ancient 'ideas', constructed their own world view.

ANCIENT ASTROLOGY
Tamsyn Barton

ANCIENT NATURAL HISTORY
Histories of nature
Roger French

COSMOLOGY IN ANTIQUITY
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ANCIENT ASTROLOGY

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London and New York

First published 1994
by Routledge
11 New Fetter Lane, London EC4P 4EE

This edition published in the Taylor & Francis e-Library, 2003.

Simultaneously published in the USA and Canada
by Routledge
29 West 35th Street, New York, NY 10001

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data
A catalog record for this book is available from the Library of Congress

ISBN 0-203-41071-8 Master e-book ISBN

ISBN 0-203-71895-X (Adobe eReader Format)
ISBN 0-415-08066-5 (hbk)
ISBN 0-415-11029-7 (pbk)

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GENERAL SERIES INTRODUCTION

PURPOSE OF THE SERIES

The purpose of this series of volumes is to provide the reader who is not necessarily a classical scholar with a broad view of some areas of ancient interest to which the term 'science' has customarily been attached. Many readers with an interest in history are well aware of the importance of perceptions of Greek philosophy in the later cultural and intellectual history of the West, but will not have to hand an authoritative guide to the various philosophies of the Greeks and Romans. The ancient material used by philosophers and others in later periods is here described in its ancient context. But the needs of the modern reader, who may want information on one particular area of the sciences, has been kept in mind.

These two purposes, to give ancient 'science' in its context and to direct the reader's attention to fields of study that he recognises, coincides with a fresh look at ancient 'science'. First, as a practical matter, in a wide survey such as this it is clearly undesirable to proceed by means of modern categories such as 'physiology' or 'physics' when such terms meant something very different in the past. It is more appropriate to use subject areas that were recognised in antiquity, in order that some account can be given of them that reflects both ancient—rather than modern—categorisation and their cultural context.

Second, seeking 'the sciences' means going further afield than the liberal arts of classical and medieval education. Medicine, for example, (to mention briefly the subjects covered by the series) was a vocational rather than liberal discipline, as clearly defined in the ancient world as now, for there have always been people who have tried to cure disease and maintain health. Mathematics also in a

sensedefines its own subject areas (arithmetic and geometry) in a way that largely coincides in the modern and ancient periods (and which also partly coincided with the quadrivium).[1] Natural history too is a category recognisable equally to Romans, at least, as to moderns. Astronomy without its constant companion astrology is perhaps a modern category rather than ancient and its *separate* history is partly a construction of scientific historians.[2] Astrology is as recognisable as medicine, with a body of practitioners, clients and a technical subject matter, practised in a society of which the economic, intellectual, religious and political aspects all had a historical role to play. Natural philosophy in the sense of speculation about the ultimate principles and constituents of the natural world is, from evidence from the pre-Socratics and Aristotle, also an ancient category that is recognisable today. The series also looks at the practical way in which the Greeks handled the physical, natural world, which the theory of their sciences speculated about.

SCIENCE IN ANTIQUITY?

Third, in seeking the sciences in antiquity we have to think carefully about what we mean by 'science'. Can we find science in the ancient world? Why is the title of this series *Sciences of Antiquity* and not the more straightforward *Science in the Ancient World?* For many years seeing science in the ancient world was unproblematic. It went hand in hand with seeing science as 'exploration of nature' or something similar. But it is no longer enough to think that science is adequately characterised in this way nor that it is a simple unveiling of the truth of nature. Science is a human enterprise and so also a human construction. As historians we must consider what kind of undertaking science is and how far back we can take the term 'science' without losing its essential meaning and therefore seriously distorting the historical picture.[3]

'Science' is an old word in English and is derived from the Latin *scientia,* which, like the Greek *pbilosopbia,* meant knowledge in general. In English for many centuries 'a science' could mean anything taught in the schools and the collective term 'sciences' of the present title of the series still retains an older and more general usage than our present meaning of 'science'; and this is why it has been used. It is only in this sense that science existed before scientists. The word 'scientist' came (from mixed parentage) into English not long before the middle of the nineteenth century, when the word 'science' began

to take on a modern meaning. That is, when the science of natural philosophy came to predominate and to capture the name 'science', a new name was needed for the people who practised it.[4] Usage is everything: 'science' has now connotations of purpose and methods that are quite out of place when describing the entirely different enterprises of the ancient world. But so familiar are we with the apparently timeless validity of scientific truths that we give them in their timelessness, a past, a history for them to unfold themselves in. If we believe in the timelessness of their truths then it is tempting to make the timelessness and the truths the yardsticks against which is measured man's success in recognising them in the past. But man in the ancient world was doing something else, and did not have a duty to recognise our truths. What he *was* doing was some kind of philosophy, most often natural philosophy.

MODERN SCIENCE

If we are to agree or disagree about the existence of science in the distant past, we must first agree on what science is. A brief, ordinary characterisation of science would surely include most of the following: (i) It is objective. The scientist puts his passions aside and relies on reason, (ii) It is non-religious. No longer does an instinct veneration for a creator structure the search into nature. In being objective, passionless, creatorless, it alone produces tangible truth, which in modern society is given privileged status (and which science often consciously opposes to faith), (iii) It is experimental in its verification of its theories, (iv) Science and the research that continues to build it are in practice directed to the practical business of manipulating nature. Its self-confidence is increased by every successful manipulation of nature: it appears to be self-proving, (v) Its manipulative nature has strong links to technology, (vi) It has universal law-like statements, often mathematical and with Boyle's law as a paradigm.[5]

Little of this can be found in the ancient world. No one in antiquity strove through philosophy to manipulate nature except perhaps the Magi and the doctors (and it is very questionable whether they were using philosophy). Control of the human mind (achieving *ataraxia,* freedom from fear) was a much more common goal; and *ataraxia* was a subjective state, quite different from the objective goals of science. Nor does science seek to enforce a moral or religious code of behaviour in its practitioners, as much ancient philosophy did.

Mathematics was an available resource when science was constructed, but its earlier connection with the natural world was at the metaphysical and religious level if at all. Natural philosophy had understanding nature as one of its goals, but since this aim did not include manipulation, it did not use technology. Often natural philosophy denied the power of the gods to intervene in human affairs, but that did not prevent philosophy being a manifestly religious affair. It was not experimental.

Even less satisfactory have been attempts to show that the 'science' of the Greeks *failed* to have certain features of modern science, and so was limited in its nature and progress.[6] Failure implies some shortfall in an enterprise with a known goal: what could such an enterprise have been in the ancient world? It is clear that ancient philosophers did not always expect their subject to progress and certain that none of them were aiming at modern science. Others have extended the argument and asserted that some activties of the Greeks were scientific in a limited way, and that for example doctors and root-cutters were gaining scientific knowledge of plants, while others were working on geometry or explaining how thunderstorms happen. Quite apart from the question of why these people were doing these things it surely is the case that the broad principles of science apply to all of its parts—this is the reason for calling anything 'scientific'—and that it is not a collection of localised explanations. That science is a unitary thing is recognised by all of its practitioners whatever their own branch of it may be. Certainly what the Greeks thought about plants, geometry and thunderstorms may have prompted later people to think about them too, or even to adopt Greek explanations; but even when such a process extended down to the age of science it does not mean that the Greeks were practising science. At most they were writing what came to be used as resources for people who did come to practise science. Perhaps you want to build a garage. It has to be a certain shape in order to house your car, which is its function, and the thing that identifies it as a garage. You may take the bricks from a derelict Victorian stable, which was another shape for a related reason. But your use of the bricks does not make the stable an early garage, in an age without cars.

Fragments of world-views (like bricks) may certainly look scientific when presented in isolation. Fragments presented collectively, as in source-books of ancient or medieval 'science' and put (silently) into modern categories, take on an authority which none of the fragments had its own context.[7] More persuasive are examples of 'the scientific

attitude' which are often used to show how the ancients, although getting the details wrong, were investigating nature in the right spirit. So much has been said about myth, magic, superstition and rationality,[8] objectivity and science, largely by scientific historians, that the terms are largely debased currency.[9]

Some historians have recently recognised that to see science in antiquity we have to have a definition of science so broad as to be meaningless.[10] Whether it is Aristotle's 'all men by nature desire to know' (he said it in the *Metaphysics* and by any account it is a broad definition) or a 'systematic knowledge of nature'[11] we are left with something so vague that it can scarcely have a history.[12] Why, after all, should we use a modern term to denote ancient usage, when the categories and terms of the past are better?

HISTORY AND PHILOSOPHY

The people whom scientific historians see as practising science in the more or less distant past often said, sometimes volubly, what they were doing. They called it philosophy and strove rather to stress the unity of knowledge than the separateness of its parts. Part of it was concerned with the natural world, but this part was not marked off from the others by any strict boundaries.[13] Philosophy too has its historians, and it is not difficult to gain from the historical literature the notion that philosophy is and was a free and intellectual enquiry into fundamentals.[14] The historian in contrast sees that ancient philosophers could be as interested in factual minutiae as much as fundamentals. They were often practical people, using their philosophy to bring about a certain state of mind and way of life (which are not goals of modern philosophy). Sometimes they are more visible as capitalists and engineers.[15] They also advised governments and often got into trouble. As educators they had to be careful what they taught if they wished to retain their schools or their lives: intellectual, certainly, but not always free.

BUILDING HISTORIES

(i) Whigs and genes

So if there was no such thing as science in the ancient world, why have people thought that there was? To answer this we shall need to

look first at the historiographical tradition that made 'ancient science' a natural explanandum. Then we must offer an alternative.

If we pause for a moment and look at the history of history-ofscience we see that it has two characteristics that help to solve the problem. First, history of science is often tied to philosophy of science, a circumstance that reflects the beliefs of the founders of the subject—that is, that science, being so important and successful, must have some special method. Second, it attracted the attention of specialists in various departments of science, who seemed by their speciality to be well equipped. Like the philosophers, whom we have just mentioned, the scientist-as-historian who looks at the past of his subject naturally sees it as developing to the maturity that represented it in his own time. This is close to the practice of the Whig historians who notoriously saw old political constitutions as stages in the development of the Whig constitution rather than answers to old political problems. The time has gone when it would be appropriate to criticise Whig history, but what we find in current treatments of histories of ancient 'science' is what we might call genetic history. In this, ideas or other contributions are represented as passing down through the ages like genes or seeds, becoming fertile or dying according to the ground on which they fell and on their innate viability. Here the identity resides within the gene, which may perhaps—in genetic history—be seen as genuinely scientific or having been recognised in a scientific spirit. But ideas are not genetic, do not happen on their own without some world-system, nor outside people. The historical dynamism is not with the transmission of ideas but with the efforts of successions of people trying make sense and order of their world. They may in doing this make use of what was thrown up by previous attempts, if such things are available, intelligible, interesting and relevant, but the continuity of 'ideas' so often seen by historians is the generation of notions afresh by every active mind that reads or sees paper or papyrus from the past and interprets and reconstructs according to his own problems, aims and methods.

The apparent naturalness of genetic history is summed up in an aphorism of Pascal, which expresses clearly how the West developed (and at a critical time) a tradition of looking at history which sought out and emphasised continuities: 'The entire succession of men through the whole course of ages must be regarded as one man, always living and incessantly learning'[16] Quite so; Pascal's 'one man' kept an accumulating bank balance of ideas within his head, never died in one culture or was born in another, never suffered passion or fashion except

Pascal's brand of intellectualism and represents a construct, mankind, taking actions that only the physical man can do.

(ii) Legitimation

One reason for writing a history of a subject has generally been to give legitimation to a new discipline. Phrenologists in the nineteenth century went back to Plato as confidently as psychologists in the twentieth to show that though the subject was new, yet its principles were known, unnamed, to the greatest of the ancients. If like the Frenchman Riolan in the seventeenth century, you thought you had worked out how the blood moved in the body, it strengthened your case by showing that Hippocrates had known it, but had not built it up into a system. When the great Dutch teacher Boerhaave had become convinced of Newtonian mechanism, he wanted to show that Hippocrates too had been a mechanist. We would not in these cases allow that there was any real history of phrenology, psychology or mechanism.

History can be used to legitimate one's own activity also in the converse way. Aristotle often set out to strengthen his own arguments by destroying those of people he chose to regard as his predecessors. He represented them as engaged in the same task as himself, whereby it became easier to show how they had failed and he had won. For example, there is almost no evidence save for that from Aristotle that Thales ever indulged in natural philosophy. He was well known for giving political advice and for his practical inventions, but it is Aristotle who put him at the origin of the 'history of science', which he did for his own purposes.[17] Much the same can be said of Anaximander and Anaximenes. The same kind of historical construction was made by the Alexandrian scholars who compiled an 'Ionian succession' of philosophers.[18] The Christians naturally showed that the arguments of the old philosophers, where not frankly wrong, were at least incomplete gropings towards the religious truth. With the aid of a higher order of knowing, revealed knowledge, they could both stand above the pagan philosophers and draw support from them, when viewed 'historically'.

Part of the power of history to legitimate a discipline[19] is derived from its frequent use in teaching the discipline. Law students are taught Roman Law and chemistry students Avagadro's hypothesis. The material chosen is selected for its ability to illustrate how the modern truths of the subject emerged at the pioneering hands of the

subject's heroes and the result is at once a genetic 'history of ideas' and a Whig evolutionary history. So history of science has been pedagogic and legitimating. All are self-serving and the historian of history-of-science sees too many parallels in the past to accept such devices at face value. He sees that the professional job of the historian of science is to find science in the past, who often measures his success by how much he finds.

Because we see most clearly in the past what is of most interest to us as moderns, we are being selective. There is a strong sense in which we are *constructing* history in our own image; and doing so moreover partly from fragments of similar constructions of our predecessors. This of course appears to confirm our interpretation, in that some scholar in the past thought so too; and the scholar becomes more famous for agreeing with us.

INTELLECTUAL PATERNITIES

It is in this way that Western Europe *chose* its intellectual ancestry. Part and parcel of this is that far from natural philosophy and science being an effect of a classical cause, or a growth or a rebirth from a classical seed, or some more general self-executive bequest of the Greeks, it was the other way round. Just as Aristotle had chosen *his* opponents and thus made them into his ancestors, the men of the Middle Ages and then the Renaissance sought out and so reconstituted ancient philosophy. They did so for their own purposes and so were selective. The early church *chose* Plato when it needed intellectualism to defend itself and attack opponents. It chose Aristotle in the early thirteenth century for similar reasons.

The men of the Renaissance too chose to see their intellectual parentage in ancient Greece. Before—say—the Council of Florence the language of Greece was not widely known in the West. Greece was distant geographically and culturally. Indeed the Latins were traditionally hostile to the Greeks, having defeated them with a diverted crusade in the early thirteenth century and having set up a brief Latin Empire over Byzantium. The Greeks thought of the Latins as barbarians, and became even more Greek in reaction. After the collapse of Constantinople Greece ceased to exist. Greek refugees from the Turks brought with them new and exciting philosophies and political ambitions. From then on the desire to restore, recreate and relive the classical Greek cultural experience expanded hugely.

Similar forces have played a part in much more recent history,

that is, in history of science. During and immediately after the Second World War historians of science like Schrödinger[20] and of medicine like Temkin[21] looked with fresh need at the ancient Greeks. They wanted to see some continuity between themselves and the Greeks. The ancientness of European thought, conceived in this way, offered some form of stability at a time of change as great as that of the collapse of Constantinople. That science (and technology) was a dominant force in people's lives had been demonstrated in a most potent way in the development and use of nuclear weapons. There was also, then, a new urgency to explain and understand science, which included its history. It seemed natural that scientists were best qualified to do this.[22] Two heroic claims illustrate the new perception of 'Greek science': 'Nearly our entire intellectual education originates from the Greeks',[23] and 'It is an adequate description of science to say that it is "thinking about the world in a Greek way". That is why science has never existed except among peoples who came under the influence of Greece.'[24]

But what can 'influence' be here? In ordinary language of course we know what such a phrase as 'coming under the influence of means. But when 'influence' is used as an historical explanation it is generally misleading. It implies a power stretching over the ages, energised by some innate quality, perhaps intellectual virtuosity, truth or beauty. Or perhaps what is meant is that influence is influential because of transmitted ideas. The same arguments can be used against influence, as a sort of active miasma into which people wander, as against ballistic ideas. Influence starts with the person who is influenced. He sees it in what he reads or is taught if a number of other conditions are appropriate. The reader's circumstances may make him admire and find consolation in what he reads, like those of Schrödinger or Boethius, or not, like those of Gregory IX or the Caliph Omar (who respectively bowdlerised Aristotle and ordered the burning of the library in Alexandria). It is with the notion of 'influence' that much history of ancient 'science' was written, while the classical scholars looked the other way.[25]

SELECTIVE SURVIVAL OF TEXTS

In considering how people have looked at history and have constructed it in various ways, an important fact is that the bulk of our historiographical tradition was formed in the Christian centuries, and practised upon material taken from Islamic hands. This has had

two effects. First, whether actively or passively, both religions filtered out texts that could not be accommodated to the prevailing religious system. Second, both systems needed self-justifying histories in which everything had to have a place in a scheme of things that led to an ultimate enlightenment. The church needed philosophy only to defend itself from or win over people to whom philosophy was important. The church legitimated its use of philosophy by giving it a history, accepting it as limited knowledge that had pointed in the right direction and which had given some understanding to people who had lived before Christ.[26] Monotheism seemed to be a stage of development preparatory to the Christian revelation. In short a history was constructed which emphasised continuity and development towards a final enlightenment. The texts that survived naturally seemed to reinforce this.

Nor should we allow this manipulation of history by the church to lead us into the trap of imagining a history of antagonism between religion and 'science'. Natural philosophy had religious purposes for most of its history, in the absence of science. Only when science *did* find itself in opposition to the doctrine of Creation after Darwin was there a conflict. Defenders of science began to strengthen their case by showing that the conflict *had a history.* Suddenly parts of the past were luminous with a new significance and the mantle of the scientist, at odds with religion, passed backwards to Galileo, Vesalius and beyond.[27]

RESOURCES FOR HISTORY

It may seem peverse to introduce a series of books on ancient topics partly by means of a history of more recent ways of looking at the past. But it does help us to decide what history means for a topic so difficult to define as science. It also contributes to the purpose of this series, in that readers with knowledge of later periods may be invited to think about the nature of Greek 'science' in those periods. Rather than of transmission, influence and so on, we can tell a story of how ancient writings came to be used as *resources* by later writers. Aristotle's descriptions of eternal and godless species of animals were a resource, a mine of information that could be quarried by the Arabs in arguing that God was distant from the world and by the Christians up to the nineteenth century in arguing that on the contrary God was very close to the world.

The history of resources is also consistent with the other purpose

of the series. The contributors each examine their subject areas as ancient practices undertaken for ancient reasons: like later generations the ancients used what resources they knew about and could understand, if those resources were relevant and interesting. Necessarily they selected, out of context, the fragments of the resource that had these qualities, and put them to different uses in another context, that of their own philosophy, religion, politics and so on. It is in this way that the sciences of antiquity reflect the society out of which they grew.

This emphasis on the reinterpretation by each generation—indeed by each person—of the resources of the past should not obscure the fact that some of our subject areas were the concern of groups of people who had much in common. Indeed, it was argued above that the subject areas of this series were recognisable in the ancient world, which means that each was practised by more than a single man. The doctors could see medicine as a discipline that would grow on the basis of accumulated experience, and so to an extent were consciously laying the foundations for the development of an autonomous discipline. Aristotle too recognised that natural philosophy was an exercise that might by further observations in the future resolve problems obscure to him. But they were not laying the foundations of our disciplines. Just as both Aristotle and the doctors constructed histories to legitimate their own activity and to mark it off from others, so by the same token when they looked to the future they saw an extended Aristotelian natural philosophy and a future (let us say) Asclepiad medicine. Nothing else would count as the real thing.

We might also be tempted to argue that a number of people close in time and space might have beliefs enough in common to constitute an autonomous discipline that might have a history. Institutions have their social history, of course, and it can be said more realistically of them than of ideas that they preserve their integrity over successive generations of people who constitute them. But there is a parallel historical danger of giving institutions (like ideas) a chronological momentum of their own: for an institution to survive, it must offer some advantages to its members. Moreover, simple community of belief would be largely invisible in historical terms: it is only change that gets noticed historically, and change is initiated by people.

While science is an enterprise that becomes unrecognisable when dismembered as we go back in time, so the pans of it that some people see in the past are actually parts of other enterprises, in the context of which alone they can be understood. Where we only have

fragments of early figures, like the pre-Socratics, it is impossible to know what their business was. What has survived has done so precisely because someone else picked things they were interested in out of the original; so that the process of selection and survival tells us something about the selectors but not enough about the original enterprise for us to reconstruct it. As Lloyd says, the earlier preSocratics were 'different [from each other] in their *interests,* in the *style* and *medium* they used in communicating their ideas, and in the *attitude toward* and *role in* society'.[28] They do not form an 'Ionian succession' or a succession of any similar kind. Even when we do know something of an enterprise, it is different from anything 'scientific'. To return to Thales, the traditional father of science, he is actually better known for his politics, for diverting a river and cornering the market in olive presses.[29] It is true that he predicted an eclipse and fell down a well while watching the stars, but these are slender qualifications for a scientist. The Pythagorean concern with mathematics was a religious and ethical enterprise rather than a philosophical. Cicero's admiration of animals is a link in a chain of argument about the existence of the gods.[30] Seneca's is part of a practical procedure aimed at *ataraxia;* both were Stoic enterprises. Using 'science' in the past *creates* problems because it looks different from philosophy; in doing so it also—because of a perceived opposition between science and religion—obscures the relationship between philosophy and religion.

NOTES

1 W.H.Stahl, *Roman Science. Origins, Development and Influence to the Later Middle* Ages, Madison, Wise., 1962, p. 9.

2 It is a construction in that many historians represent the ancient writers as contributing to an ideal intellectual enquiry. For many of the ancients astronomy was simply the mathematics needed to practise astrology. There are a number of still popular textbooks on early 'physics' and astronomy that do not mention the word 'astrology'. What is implied by such an exclusion is that astronomy became scientific precisely by throwing off what was unscientific.

3 This is not to deny that much first rate-work has been done by those who do see science in the Greek world. The scholarship of Geoffrey Lloyd in particular has been of immense value and the change of emphasis that I suggest here should not be taken as an attack on it. See Lloyd's collection of essays over a span of thirty years and his present assessment: G.E.R.Lloyd, *Methods and Problems in Greek Science,* Cambridge, 1991.

4 On the identity of science see Andrew Cunningham, 'Getting the game right: some plain words on the identity and invention of science', *Studies in History and Philosophy of Science, 19,* 3 (1988), 365–389.

5 See the useful discussion by David C.Lindberg, *The Beginnings of Western Science. The European Scientific Tradition in Philosophical, Religious and Institutional Context, 600 BC to AD* 1450, Chicago, 1992, ch. 1. Lindberg gives a list similar to the one given here, where each item is an *alternative* view of science, held by different groups. This allows him to find science in the past, based on one or more of these views, although he is surely correct to see the advantages of also using the term 'natural philosophy'.

6 Historians of the 'physical' or 'exact' sciences have been particularly prone to see breath-taking advances in Greek science that were nevertheless halted by things like their aversion to experiments and ignorance of statistics.

7 Characteristically source-books omit the contexts, often including even the chronological, of their ancient extracts, and group them into modern categories: statics, dynamics, optics, acoustics, chemistry and chemical technology, biology (including natural selection), botany (including classification), physiological psychology.

8 These words in particular vary in meaning depending on who says them, and it is best to preserve a historical relativity or neutrality. 'Superstition' after all is simply someone else's religion. It meant originally the prayers of Roman parents that their child should survive them, that is, be a *superstes*. The nature or manner of their prayer attracted the derision of others, whose pejorative views have prevailed. 'Rationality' has come to mean 'discovery of truth' but is best seen as 'use of argument'.

9 The prime orientation of all these terms is one of approval or disapproval from a locus within modern society (with its science); overwhelmingly in the last generation of historians of science the tendency was to give a *moral* reading, so that disapproval was reserved for *failure* to be modern science. 'Objectivity', 'rationality' and 'science' were, like 'democracy'– a paradigm example—all in contrast *virtues,* conceived as moral but presented as objective.

10 W.H.Stahl opens his *Roman Science* refreshingly with doubts about whether his subject is either Roman or science; but nevertheless he builds up a balanced and useful picture of the Roman sources of medieval knowledge.

11 This is a phrase still to be found in frequently used works on early 'physics' and astronomy. In such contexts, 'science' is also largely mathematical, and so begins in Egypt. Where the term 'systematic' is used it is as often as not applied to stone-age cave paintings; to accept the idea we should have to accept that of stone-age scientists.

12 The most important recent enquiry into the history of science that looks at the *nature* of science is Lindberg, *Beginnings of Western Science.* Lindberg allows that 'science' has changed in form, content, method and function, which does not seem to leave much by which we can recognise it in the past or identify it as an enterprise. His principle of not looking for fragments of modern science in the past is of course

sound, but his solution, to adopt the definition of science 'as broad as that of the actors of the past' essentially begs the question. But this is a valuable book, and the reader should also consult David C.Lindberg and Robert S. Westman, *Reappraisals of the Scientific Revolution,* Cambridge, 1990, especially for the historiographical reorientation discussed in both books.

13 In most cases 'natural philosophy' is a better term to use than 'science'. Strictly, natural philosophy in the West was part of school Aristotelianism from the thirteenth century to the Enlightenment, and can be readily extended to cover the expressly dissenting views of those who reacted against it.

14 Historians of 'the exact sciences' have likewise often characterised them as being purely intellectual exercises.

15 See Lloyd, *Methods and Problems*.

16 Quoted by L Edelstein, *The Idea of Progress in Antiquity,* Baltimore, 1967, p.91

17 See Lloyd, 'The social background of early Greek philosophy and science', in Lloyd, *Methods and Problems,* pp. 121–140; p. 130

18 A.H.Armstrong, *An Introduction to Ancient Philosophy,* London, 1968, p.116.

19 Often histories are strategies to protect reformulations. See L.Graham, W.Lepenies and P.Weingart, *Functions and Uses of Disciplinary Histories,* Dordrecht, 1983.

20 See Erwin Schrödinger, *(Nature and the Greeks,* Cambridge, 1954) who reports on the 'wave' of people, mostly scientists, who began to think in this way.

21 O.Temkin, 'An essay on the usefulness of medical history for medicine', *Bulletin of the History of Medicine, 19* (1946), 9–47, and see Sigerist's introduction to the volume.

22 Schrödinger, himself a theoretical physicist, was a model for many. Schrödinger also wanted to avoid, by returning to perceived Greek sources, the apparent warfare of science and religion, another divisive factor in post-war Europe.

23 Theodor Gomperz, quoted by Schrödinger, *Nature and the Greeks*.

24 John Burnet, quoted by Schrödinger, *Nature and the Greeks*.

25 In his inaugural lecture as professor of ancient philosophy and science Geoffrey Lloyd notes the traditional aversion of the classical scholar to examine authors other than the great literary masters. Lloyd, *Methods and Problems,* pp.352–371; p.354.

26 The view was widely held by the Greek Fathers in particular, and has remained a Christian conception down to the present.

27 See A.D.White, *A History of the Warfare of Science with Theology in Christendom* (1896), 2 vols, Toronto and London, 1960.

28 Lloyd, 'Social background', p. 133. Down to Parmenides there is no evidence that the pre-Socratics recognised themselves as belonging to any group of philosophers or enquirers into nature.

29 Lloyd, 'Social background', p. 130.

30 Cicero puts the argument into the mouth of Balbus, the Roman Stoic, in the *De Natura Deorum*.

PREFACE

I arrived in Cambridge in 1986 determined to write a Ph.D. for the Faculty of Classics on 'Women and the Irrational: Magic, Cult and Madness', but within a few weeks found myself forced to produce a paper on astrology in antiquity. I had my supervisor to blame for that, and I had my revenge by casting his horoscope in the ancient style for the paper. Nevertheless, in retrospect, I have Keith Hopkins to thank for pushing me in the direction which eventually led to this book.

Thanks is also due to my long-suffering main supervisor Geoffrey Lloyd, and to Newnham College, which gave me a Research Fellowship; without them, I could never have begun the book. The Wingate Foundation generously funded me throughout the period of writing, for which I am very grateful.

There are a few other debts to acknowledge; the Classics Faculty Library in Cambridge kindly allowed me to continue borrowing even though I was based in London, Paul Taylor of the Photographic Collection at the Warburg Institute was extremely helpful with finding illustrations; I am grateful to Paul Cartledge for starting my collection of newspaper cuttings on contemporary astrology and to Tim Screech for his last-minute assistance in printing out. Thanks are also due to the series editor, Roger French, to the desk editor, Sue Bilton, with her expertise in modern astrology, to the copy editor, Lionel Hope Jones, and to the judges of the Routledge Ancient History Prize for the useful comments and queries they all made. Particular thanks go to those who painstakingly sought answers to the queries posed during the editing process, a task I was unable to carry out myself while in India: Malcolm Barton, Catharine Edwards, Angie Hobbs, Peter Kingsley, Elizabeth McGrath, Onnovan Nijf, Vicky Peters, Ursula Sdunnus and Paul Taylor. Most of all I have to thank Peter Singer,

my only critic before it went to the publishers, for whom this book was an unwelcome flat-mate; he suffered its encroachments with amazing fortitude.

This book is meant to be for the non-specialist, but it is not meant to fob them off with an account which does not engage with the sources of evidence. My ideal is that there is just enough for the reader to understand the bases on which one could make a decision about how to interpret the evidence. Indeed for those who want to make up their own minds I have tried to provide a user-friendly indication of where to find the original sources, or the secondary accounts of them, in the notes. In the Introduction, I explain the special difficulties attending the sorts of evidence we have for the history of astrology. As a result of these difficulties, especially in the first three chapters—the chronological history—the reader has to suffer what could be tedious accounts of the uncertainties, conflicts and difficulties in the evidence.

This much is necessary for anyone who wants a history rather than a coffee-table book. But I have tried to avoid getting embroiled in the details of scholarly debates, or bogging down the text with endless notes. This has the unfortunate consequence that I have not been able to give as much credit to my secondary sources in the body of the book as I would like. Incidentally, where Greek is transliterated I have used the forms which make the relation to modern languages clearest, although it is unpleasing to a classicist. Furthermore, I have not been able in every case to ascertain if there is a copyright-holder of the material in the illustrations.

One last important point to bear in mind is that I have preserved the ethnocentric use of the term 'ancient history' to refer to a history centred on the European tradition. This study is focused on 'classical' antiquity, which concerns the Greco-Roman world, where the recognisable bases of modern Western astrology were established. In fact, Mesopotamia and Egypt play an important part in the history of 'classical' astrology, but they are not examined in their own right. Similarly, I do not cover Arabic, Indian or Chinese astrology, which had their own lines of development.

INTRODUCTION

Astrology is a remarkably resilient discipline. At the end of the last century, when the classic study of ancient astrology was written by Bouché-Leclercq, contemporary astrology looked as if it had permanently disappeared. He was apparently writing the history of a dead superstition.[1] But since then astrology has enjoyed a renaissance. The vehicle for astrology's phoenix-like resurrection has undoubtedly been the newspaper horoscope. The first publication of a newspaper horoscope in the world apparently appeared in the *Sunday Express,* for the birth of Princess Margaret in 1930.[2] Since then it has not only embedded itself in British popular culture, but has spawned imitators all over the world. My horoscope for this week, interpreted by the doyen of newspaper astrologers, Patric Walker, says:

> The sun in the highly sensitive and emotional sign of Cancer only urges you to take a closer look at relationships, conditions or situations that have deteriorated over the past six months, and then to discard ruthlessly anything you feel to be a hindrance or of no further value. There are bound to be days when the odds still seem to be stacked against you. However, with a little flair, confidence and the will to succeed, you can surmount any obstacles.[3]

This is about as distant from the astrology discussed in the following pages as you could find. It is not only that the prominence of the Sunsign, abstracted from its context, is a modern phenomenon, but that the whole style of the piece would have been quite alien to ancient astrologers. The tone is one of the counsellor, concerned for the emotional well-being of the reader. The most successful consultant astrologers today set themselves up as counsellors, combining their astrology with a background in therapy or psychology. Ancientclients

did not want counselling: they wanted predictions, or help with specific decisions. If we take extracts from the advice of a modern astrologer and compare it with those of an ancient one, a number of differences become obvious:

> The proficient astrologer may sometimes be called upon to help those of his fellow human-beings who have difficult personal problems to solve. In such circumstances he should recognize that his position is a privileged one and that the possession of astrological knowledge is a trust not to be regarded lightly. He should refrain from giving advice unless it is asked for and then he should always try to suggest to those seeking help how they can best help themselves, by dwelling upon the strengths and not the weaknesses of the horoscope … Never delineate or predict in too much detail, for to do so requires a most unusual degree of inspiration. Above all, never suggest the time when death is likely to take place as this must inevitably cause an unfavourable psychological reaction.[4]

Prediction of the time and manner of death was one of the most important activities of the ancient astrologer, though it was illegal, so it is not mentioned in this idealised portrait, where the priest is held up as a model:

> Study and pursue all the distinguishing marks of virtue… Be modest, upright, sober, eat little, be content with few goods, so that the shameful love of money may not defile the glory of this divine science… See that you give your responses publicly in a clear voice, so that nothing may be asked of you which is not allowed either to ask or to answer. Beware of replying to anyone about the condition of the State or the life of the Roman emperor. For it is not right, nor is it permitted, that from wicked curiosity we learn anything about the condition of the State… Have a wife, a home, many sincere friends; be constantly available to the public…avoid plots… In drawing up a chart, do not show up the bad things about men too clearly, but whenever you come to such a point, delay your responses with a certain reticence, in case you seem not only to explain but also to approve what the evil course of the stars decrees for the man.[5]

We shall come back to the preoccupation with affairs of state exhibited in this quotation in a moment.

In this book, there is much more on the learned version of astrology than on the popular kind, thanks to the biases of the sources, so that the more appropriate kind of astrology for comparison is not newspaper astrology, but the sort that has begun to institutionalise itself, with academic conferences, examinations and its own journals. Indeed this is the arena in which we find the elements of astrology which have survived from antiquity, in interpreting the meaning of the planets' positions in the zodiac, the mundane houses, the aspects, and so on (see the Glossary). But however great the efforts of 'serious' modern astrologers to appropriate full academic status, they could never attain the enviable position of ancient classical astrology, which was in tune with contemporary intellectual disciplines. It fitted in with ancient cosmology, it drew on the data of astronomy, it offered an extra dimension to medicine, it shared the convictions of philosophers, and it fitted in with much religious understanding of the divine. Not everyone believed in astrologers, but hardly anyone was willing to deny the stars some effect on human life.

Naturally, the high intellectual profile of the subject did not weigh with everyone. If astrology offered answers to the pressing issues of everyday life, like love and money, as today, its credentials did not have to be scrutinised too closely. There are some constants in astrological enquiries. A group called the Gambling and Spiritual Workshop meet each month in Holborn to predict the results of the main horse-racing meetings of the day by astrology, and sell their tips by telephone. Under the Roman Empire and its Byzantine successor there were also specialists in racing: astrologers used the stars to find out which team of chariot-drivers would win in the hippodrome: I look at the methods in Chapter 6. A man from Halifax wrote to Russell Grant, the television astrologer who also does the stars for the national newspapers, to find out whether his wife would come back to him. You can find a discussion of how to answer the same question in the work of Dorotheus of Sidon, of the first century CE, from which I quote in Chapter 6. In fact, Grant put the man in touch with a marriage guidance clinic; we do not learn whether he proffered astrological advice as well.[6] But, however pressing their problems, successive emperors in the Roman world would not have given astrologers such prominence, had astrology not enjoyed intellectual respectability and been stamped with the marks of high culture. In fact, the first emperor of the Roman world was an important catalyst in making astrology more than the obscureinterest

of a few intellectuals, when he promoted himself and astrology at the same time; but that is another story to be told later in the book.

The high status of astrology explains the difference between the use of astrology in high places today and in the ancient world. It is true there were superficial resemblances to the Roman Empire in the story which emerged in May 1988 about President Reagan. Just like the emperors, he was supposedly converted to astrology by a dramatically successful prediction. The San Francisco astrologer Joan Quigley warned that late March 1981 would be dangerous, and there was an assassination attempt which wounded the president on 30 March. In a further echo of the rumours which circulated about the emperors, doubtless reflecting similar concerns about illegitimate access to power, the papers said that it was the President's wife Nancy who passed on the astrological advice on how to run a superpower. Just as the emperors would get advice on the best moment for a particular enterprise, Reagan was supposed to have selected the hour for the signing of the treaty with the Soviet Union after Quigley studied the relevant horoscopes. Reagan is not alone in being a head of state in an economically developed Western country this century who was believed to have made decisions with the help of astrologers—the British intelligence sevices seem to have taken seriously the idea that Hitler was being advised by astrologers during the war,[7] and it was reported in *The Economist* on 27 April 1985 that Papandreou had chosen the date for the elections in Greece with astrological guidance. But such situations are different from the Roman one in a most important respect. Neither Reagan, nor Hitler, nor Papandreou published their horoscopes in order to show that they were destined to rule, or had coins stamped with their birth sign, as Augustus did (Chapter 2). Astrology today simply cannot command that kind of respect. Indeed even those who have less serious reputations to keep up, like Princess Diana, play down their consultations with astrologers.[8]

The image of astrology today discourages scholarly investigation. Academics, if they do find themselves in the field, tend to concentrate on safer areas, such as the history of mathematics and astronomy revealed in astrological texts, or confine themselves to the manuscript tradition, so that they are not at risk of being perceived as moving outside the borders of acceptable scholarship. To be fair, it is not an easy field to enter, since it is technically demanding and there are many problems with the sources, as we shall see. But this leaves theway open for partisan histories, written in ignorance of the nature

of the evidence. Though one of the most eminent scholars in the field has said that no general history of astrology should be written until more monographs and critical editions of texts are published, in particular on the oriental material which preserves the Greek,[9] it is in fact long past time for a provisional history of the topic for the general reader.

It may surprise, and even enrage, some readers that there is a volume on astrology in a series dedicated to the history of science. But this recategorisation of the subject is necessary to jolt us out of our preconceptions. It leads to questions about what 'science' means in the context of a history of the ancient world. For some time now this has been a live issue in the history of ideas in the Early Modern period. Most famously, Frances Yates led the attack against a history of science which carried back categories from the modern world to the ancient one, seeing the same clear division between science and pseudo-science as is generally accepted now. She proclaimed the importance of 'Hermetic' magic, Neoplatonism, alchemy and astrology in contributing to the development of what became modern science. The debate continues, with her opponents still arguing that what was science then is science now, and the same goes for pseudoscience. But though not all of Yates's points have been accepted, it is now much more common to write histories which set sciences in their social and intellectual context.

The situation with the study of the ancient world is rather different. Little produced in antiquity could be accepted as scientific by modern standards, but there was a form of proto-science which could be seen to lie beneath the edifice of modern science. So, once the highlights, from Democritean atomic theory to the discovery of the Fallopian tubes, had been set out, interest centred on seeing how the rules of enquiry developed the beginnings of a scientific culture. Astrology has always been a very poor relation in studies of ancient science. Because the same word *astronomia,* or *astrologia,* was used until the sixth century more or less indiscriminately, and because the two subjects were closely intertwined at one level, astrology had to be mentioned. Astrological sources had to be used in the study of astronomy, one of the glories of ancient science. But it was rarely of interest in its own right, except to specialists outside the history of science, and until quite recently it was seen as an embarrassing lapse on the part of astronomers like Ptolemy that he should write on astrology as well, and appear to see the two as part of a single enquiry.

But the history of science needs to broaden its boundaries if it is to understand the ancestors of modern science in antiquity, rather than be shocked at the way ancient science fails to match its great promise and extraordinary achievements. Above all it is important to see how the intellectual and social context shaped the rules of enquiry. Crucially, there was no privileged set of disciplines which enjoyed high status because of their special access to the truth, as is the case with the sciences today. It was the poets in the Greek world who were traditionally seen as the privileged purveyors of truth, rather than the scientists, and it was philosophers who tried to take on that mantle, philosophers who might look to us more interested in religion than science. But it remained true that it was literary studies which represented elite culture more than any other area. Except for medicine, and the astrological part of astronomy, studies which we could see as proto-science were the pursuit of a tiny minority, who were not much celebrated. This is exemplified by the imperial court, which would be filled with literary figures who could add lustre to the imperial household, while the only plausible candidates for scientists would be the doctors and the astrologers. It is true that the. Ptolemaic court in Alexandria did patronise some scientific activities but even they were outnumbered by their literary equivalents.

Moreover, there were significant differences between Romans and Greeks in their attitudes to intellectual pursuits, in particular under the Republic and Early Empire. The Greeks had been conquered by the Romans, and were as often to bring their intellectual talents in the guise of slaves as in the guise of cultural ambassadors in the Republic. Given this background, the cultural stereotype—which had its influence on attitudes—was that elite Romans might be expected to be acquainted with Greek culture, but their real business was to govern.

Though past studies of ancient science which dealt with astrology have given prominence to the question of whether it was the Greeks who contributed the scientific basis to astronomy on which astrology could flourish, in this book there will be no prizes awarded for scientific achievement to any particular person or group, nor censure for those who fail to match up to modern ideals of science. Indeed, I think that the old tendency to see astrology as a pseudo-science is an anachronistic diversion from the more fruitful enquiry into how astrology functioned in antiquity. More relevant to this enquiry is the Greek concept of the *tecbne,* which is usually translated as

'art'.There were *technai* of a range of subjects which claimed to offer practical instruction, in medicine, rhetoric, architecture and dreaminterpretation, to name a few. These were a literary genre: they were meant to represent the body of knowledge on a particular subject. Ptolemy represented astrology as a stochastic *techne,* that is an art which had carefully developed rules for conjecture, and said that it was like medicine in this. Doctors might not always be correct in their diagnosis or prognosis, because of the number of variables they had to deal with, but if they knew their *techne,* they would have followed the procedure most likely to yield success.

Inevitably, however, to make sense of the ancient world, we have to operate in modern categories. In Chapter 4, on the principles of ancient astrology, I consider the scientific and religious background to ideas about astral influences, while making it clear that there was a substantial overlap, which could crudely be subsumed under the ancient category of *philosophia,* literally, love of wisdom. Wisdom and truth could be sought in the religious arena as much as in the scientific. Indeed there were *technai* of aspects of religion, in particular, of varieties of divination. Thus, to stress that overlap, in the final chapter, where I consider areas of knowledge related to astrology, I examine Mithraism, other forms of solar cult and magic, as well as medicine, geography and physiognomics, the art of relating character to the physique.

There are a few caveats to issue before launching into the chronological history. There are enormous problems with establishing a chronology of astrology's development. In the crucial period during which astrology emerged, the sources are particularly difficult. It is not much more than a century since the cuneiform tablets which provide our information on Mesopotamia were again made intelligible. The difficulties attendant on translation are obvious in the texts which I cite in Chapter 1. In addition, thanks to the buccaneering attitude of the earliest excavators, in the second half of the nineteenth century, collections of tablets were split up and dispersed around the museums of the world to moulder, and opportunities to provide information about the circumstances in which they were found were thrown away. The great historian of science, Neugebauer, doubts whether as much as one-tenth of all tablets have ever been identified in any sort of catalogue. Early work on astronomy and astrology was restricted to a particular archive in the British Museum which had been deciphered and copied by one amazingly diligent scholar, and further work proceeds slowly.

Once we come to the sources from classical antiquity, there are new problems. Again, manuscripts and papyri are all too often languishing unpublished in libraries round the world. In the middle of the century, the remarkable achievement of the *Catalogue of Manuscripts of Greek Astrologers (CCAG)* was completed. Each of the twelve volumes contains a first section which describes the manuscripts, while the second contains editions of parts of the texts. But these are Byzantine codices written from five hundred to fifteen hundred years after the original versions, and because of the nature of astrology it is often impossible to be sure, especially where there are not large numbers of manuscripts to compare, how much successive copyists have inserted their own material. Astrological texts might have been Greek translations of Arabic translations of Pahlavi versions of the original Greek, because of the shifts in centres of astrological learning. The *Catalogue* badly needs a modern commentary. In addition, there is much work to be done on Latin manuscripts. Perhaps most useful to shed light on the origins of astrology would be an up-to-date study of the Greco-Egyptian 'Hermetic' astrological texts. Though new studies have been appearing on these works attributed to the god Hermes Trismegistos and his circle, the astrological texts have been largely avoided.

But the picture is brighter than it was: new editions of astrological texts have been coming out, and some have even been translated, with commentaries. (There is a list of the major editions in the Bibliography.) A collection of Greek horoscopes on papyrus, or pottery and stone, which are astronomically dated, along with those embedded in astrological texts, has been available now for thirty years.[10] However, it too could do with a supplement to cover new finds.

All these difficulties have to be taken into account, in a context where ancient evidence is already a threadbare rag from which to weave any historical tapestry, in fact where the historian has to begin by unravelling, because of the biases of the source-material which has survived. But even if it is strung together from fragments, it is a colourful picture which emerges in the following pages.

1

HISTORICAL BACKGROUND: MESOPOTAMIA, EGYPT AND GREECE

INTRODUCTION

In antiquity there was disagreement over whether astrology originated in Mesopotamia, the land between the Euphrates and Tigris rivers, or in Egypt. The name 'Chaldaean', which in the first place referred to the people who provided the last dynasty which ruled in Babylon before Cyrus of Persia, came commonly by the Roman period to designate all astrologers, regardless of ethnic origin. On the other hand, as Egypt, since the time of the fifth-century historian Herodotus, was judged the repository of antique wisdom, astrologers tended to claim that the 'ancient Egyptians' were their sources.

Astrologers' own claims are to be greeted with caution in this regard; since Greeks had long considered their own civilisation as relatively young, claims for astrology's great age inevitably involved attibuting its invention and development to those civilisations they saw as older. The astonishing declarations astrologers made are reflected in our sources. In the first century CE, the Elder Pliny, who wrote a great compendium of natural-philosophical scientific matters, mentions that Berossus, who was believed by many to have brought astrology to Greece from Babylon, claimed that observations had been carried out in Chaldaea for 490,000 years. In the previous century, Cicero was sceptical of the figure of 470,000 he had heard. Diodorus, who accepted in the first century BCE that the Chaldaeans were colonists from Egypt, and was impressed by the antiquity of their predictive star-science, still baulked at the figure of 473,000. Others who favoured Egypt were less sceptical, and claimed that in the 48,863 years from Ptah to Alexander, 373 eclipses of the Sun and 832 lunar eclipses had been observed.[1]

Though there were reasons to doubt ancient testimonies to

theultimate sources of astrology, in the absence of firm evidence scholars in the nineteenth century revived the old debate over the relative influence of Mesopotamia and Egypt. At the end of the century, a group of scholars who came to be nicknamed the 'Pan-Babylonians' found much support for their ideas about Mesopotamian origins for most forms of ancient wisdom, including biblical stories. Such sweeping theories naturally generated strong reactions, and many of those who worked on astrology and astronomy were driven to overemphasise the role played by Egypt in response.

Assigning intellectual achievements to one culture over another is a process which carries a heavy ideological load. This was recently evident in the reception among contemporary Afro-Americans to Martin Bernal's *Black Athena,* subtitled 'The Afro-Asiatic Roots of Classical Civilisation'. This work, which attempted to put the case for giving more credit to non-Western peoples, in particular the Egyptians and the Phoenicians, than to the Greeks for the roots of European cultural accomplishments, was taken up with enthusiasm by Afro-American activists but received little endorsement for the basic thesis from Classical scholars. The most convincing part of the book was his account of the role of what we would call racism in late nineteenth- and early twentieth-century Classicists' attribution of all intellectual and cultural achievements of significance to the Greeks, and in their assimilation of the Greeks to modern Europeans.

Although astrology itself has not been seen as one of the glories of the Greek legacy, there remained a role for cultural stereotyping in arguments that it was Greek astronomy and the Greek scientific approach which transformed a crude form of divination into a sophisticated enquiry into the relation between the cosmos and the Earth, which retained the prestige of a science at least until the Early Modern era. Inevitably, in giving a historical picture of the development of astrology, we need to address real questions about the contributions of different civilisations. However, in doing so it would be unwise to rely on generalisations about ethnic mentalities to fill in the gaps in our evidence, as has too often been done.

EARLY MESOPOTAMIAN EVIDENCE

The earliest evidence we have to consider in fact comes from Mesopotamia. The oldest texts in existence are written in cuneiform script, a form of writing invented by the Sumerians, who dominated the

area from at least the fourth millennium BCE, and continued by the Akkadians, who were dominant by the latter half of the third millennium BCE. Each used the script to represent their language. One of the first surviving clues to the existence of divination based on the stars among the Sumerians comes from a document concerning Gudea, who ruled Lagash from around 2122 to 2102 BCE. It is recorded that in a dream the king was told to build a temple. He saw a woman razing a building-plot; she studied a clay tablet on which were set down the constellations. At the goddess Nanše's shrine, Gudea was told that the woman was the goddess Nisaba, and that she was studying a tablet of the stars, to build the temple in accordance with the stars.[2] One of the earliest lists of star-names is found in the Old Babylonian 'Prayer to the Gods of the Night' of around 1800 BCE, which shows that these stars were regarded as divinities capable of influencing earthly events:

> May the great gods of the night, Shining Fire-star, heroic Irra, Bow-star, Yoke-star, Sitaddaru, Mushussu-star, Wagon, Goatstar, Goatfish-star, Serpent-star, stand by and put a propitious sign on the entrails of the lamb I am blessing now.[3]

The mention of the lamb's entrails refers to the practice of sacrifice and the related form of divination, inspection of the entrails, or extispicy. This was the dominant method of seeking messages from the gods during the second millennium BCE. The secondary status of divination from celestial phenomena in relation to extispicy is suggested by a letter from a diviner found in Mari, on the middle Euphrates, which dates back to the time of Hammurabi (around 1780 BCE. The writer reports an eclipse of the Moon, which he suspects is a bad omen. However, he is not content to interpret it on its own terms, but checks it by means of extispicy.[4]

Also from the Old Babylonian period (probably the first half of Hammurabi's dynasty), we find a short manual of celestial omens, some of which is included in the great omen series known as *Enuma Anu Enlil*. An example is the following statement. 'If, on the day of its disappearance, the god Sin [the Moon] slows down in the sky [instead of disappearing suddenly], there will be drought and famine in the country.'[5]

There is also a text of the Cassite period (1500–1250 BCE) from Nippur, which was copied from older material. It could be the earliest known attempt to map the sky; it seems to measure distances between eight constellations, in answer to the question 'how much is one god [star] beyond the other god?'[6]

THE GREAT OMEN-SERIES: *ENŪMA ANU ENLIL*

The *Enūma Anu Enlil,* the compilation of around seventy tablets comprising some 7,000 omens and corresponding predictions found in the royal archives in Nineveh, was inscribed in the seventh century BCE, though it incorporated much older material. It is named after its first words: 'When (the gods) Anu, Enlil [and Ea established in council the plans of Sky and Earth]'. (Anu, Enlil and Ea are the spirits of Heaven, Earth and Water respectively.) The sixty-third tablet, known as the Venus tablet of Ammisaduqa, records observations of the planet known to the Babylonians as Ištar (see Plate 1). The first ten omens are followed by the date of the eighth year of Ammisaduqa. Scholars have dated them between 1922 and 1542, but most agree on 1646 BCE. Here we have the first detailed observations of planetary movements. Predictions are made in accordance with observed phenomena:

> [If] in the eighth month, on the eleventh day Ištar disappeared in the East and stayed away from the sky for two months and …days, and became visible in the West again in the tenth month on the…day, the harvest of the land will prosper.7

The *Enūma Anu Enlil* is a kind of index to earlier omen literature, and its compilation may go back to the beginning of the second millennium BCE. The first fifty tablets deal with lunar, solar and meteorological omens, while the last twenty are concerned with the planets and the stars. Early or late rising and setting, position, size, colour, brightness are all taken into consideration. Here is a selection:

> If Nergal [Mars] approaches the Scorpion, there will be a breach in the palace of of the prince.
>
> If the Worm is massive—there will be mercy and reconciliation in the land.
>
> If the star of Dignity, the vizier of Tispak, approaches the Scorpion—for three years there will be severe cold, cough and phlegm will befall the land.
>
> If in Month I the Demon with the gaping mouth rises [heliacally]—for five years in Akkad at the command of Irra there will be plague, but it will not affect cattle.
>
> If the True Shepherd of Amu's navel is red, there is a black spot in its right side—there will be a revolt.[8]

In this omen-series, only one branch of divination is discussed, that of celestial omens. It reveals sky-omens as similar to other sources of

omens treated in other texts. The Mesopotamians found messages from the gods in fields such as noises, animal behaviour and monstrous births, or looked for messages by techniques such as throwing oil or flour on water or burning incense.

It has often been remarked on the basis of the *Enūma Anu Enlil* that Mesopotamian astrology was not concerned with individuals. But the apparent abundance of material on sky-omens should not encourage too much generalisation, since it may only typify one sort of text. The concentration on the fate of the king or the whole country does not preclude interest in the fate of ordinary individuals, as is clear from the texts concerning omens of other sorts; even in the royal archives there are records of the meaning of omens for their perceiver, and a large number of predictions from individuals' physical appearance, or their dreams.

ASTRONOMICAL OBSERVATIONS

However, if these omens seem a long way from what we would recognise as astrology, the astronomical foundations for the art were being put in place. A text which perhaps reached its final form in around 1000 BCE, written down in about 700 BCE, known as Mul.Apin (the Plough-star), reveals these foundations. It lists the constellations in three broad bands running roughly parallel to the equator. Each band is envisaged as the path of one of the gods, who enter through gates on the horizon. Seventeen constellations along the ecliptic are set down. Though there are many unfamiliar stargroups, the origins of the modern zodiac are clearly here. The Bull of heaven, the Crab, the Lion, the Balance, the Scorpion, the Goatfish and the Tails (Pisces), the Barley-stalk (Virgo) and the Great Twins are all obviously ancestors of zodiac signs. The text also includes the dates of heliacal risings, simultaneous risings and settings of stars, an account of the Moon's path, some account of the planets, schemes for adding extra days to the calendar in order to reconcile solar and lunar data and a shadow table recording variations throughout the year, as well as instructions for using a water-clock. It ends with a list of omens, some of which are also found in the *Enūma Anu Enlil,* and which are generally of a similar type.

In 747 BCE, dated observations of eclipses begin at Babylon. By the seventh century BCE, the royal archives at Nineveh reveal that skyomens have taken priority over those revealed by extispicy in the reports of diviners to their Assyrian rulers. These diviners are now

apparently organised to collect information, based in various cities. They report in teams, according to a format, and give predictions, and directions as to the necessary procedure:

> That fellow Akkulānu has sent word as follows. It so happens that the Sun made an eclipse when rising, about two 'digits' wide, but there is no *namburbu* ritual (needed), this is not the same as an eclipse of the Moon. But if you give the order, I can write down the pertinent omen and send it to you.[9]

Some reports are precise about locating planets in relation to the map of the sky similar to that of Mul.Apin.

> To the king my lord [from] your servant Mar-Ištar. As regards the planet Jupiter about which I previously wrote to the king my lord: It has appeared on the way of the Anu stars, in the area of the True Shepherd of Anu [Orion].[10]

He offers a variety of interpretations. If the star of Marduk (Jupiter) moves into Orion, the gods will consume the land, but if it appears on the way of the Anu stars, a crown prince will rebel against his father and seize the throne.

It was from the middle of the seventh century BCE that monthly summaries of planetary movements were kept. The first astronomical 'Diary', as these texts are known, is of 652 BCE. Dates of first and last visibility and precise positions in relation to the constellations were recorded. A probable motivation for these records was an interest in constructing a calendar. In fact there were two calendars in use, a more precise one for astronomical records, and another, schematic one, which assumed a year of twelve months of thirty days each, for day-to-day affairs such as economic transactions.

It was in an attempt to gain precision for the astronomical Diaries and other similar texts that the division of the ecliptic into twelve equal parts of 30 degrees was adopted, probably early in the Achaemenid period, after the Persians conquered Babylon in 539 BCE. However, the system of plotting positions in relation to the fixed stars continued to be used in 'observation-texts'. The first time the zodiac is used in a Diary, consisting mainly of monthly summaries, is in 464 BCE.

BABYLONIAN HOROSCOPES

The dates of the nativities in the earliest horoscopes to survive are at the end of the fifth century. The earliest has only been published

recently, and it shows a transitional stage in the casting of horoscopes. Instead of recording the positions of planets in relation to the zodiac on the day of the birth, it is constructed around the synodic appearances of the planets surrounding the birth, and even records calendaric and meteorological data. It thus simply applies the sort of data available in the Diaries to an individual's birth, in this case datable to 13 January 410 BCE.

> Month Tebētu, the 24th, toward morning of the 25th, year 13 of Darius [II], the child was born. Month Kislīmu around the 15th, Mercury behind [=east of] Gemini, first visibility in the east. Month Tebētu: Tebētu 9 solstice; the 26th [last lunar visibility before sunrise]; Month Šabatu: Šabatu dense clouds, around the 2nd Mercury in Capricorn last visibility in the east. Šabatu 14 Venus last visibility in the east in front of Aquarius; the year had an intercalary month Addaru. Month Tašrītu, the 22nd, Jupiter 2nd stationary point in front of Aquarius; around month Addaru, the 2nd, last visibility in Pisces. Month Du'ūzu, the 30th, Saturn first visibility in Cancer, high and faint; around the 26th [ideal] first visibility; Month Kislīmu, the 7th, first stationary point, Month Tebētu the 17th, opposition. [The year had] an intercalary month Addaru.[11]

As is the case with most Greek horoscopes preserved on papyrus (as opposed to those found in astrological treatises), there is no interpretation. There is the bare minimum of interpretation in the other Babylonian horoscope cast for a birth only a short time later, on 29 April 410 BCE, but here we have for the first time the positions of the planets on the day:

> Month [?] Nisan[?], night[?] of the 14th[?]…son of Shumausur, son of Shuma-iddina, descendant of Dēkē, was born. At that time the Moon was below the horn of the Scorpion, Jupiter in Pisces, Venus in Taurus, Saturn in Cancer, Mars in Gemini. Mercury, which had set [for the last time], was [still]in[visible]. Month Nisan, the 1st [day of which followed the 30th day of the preceding month], [the new crescent having been visible for] 28 [US], [the duration of visibility of the Moon after sunrise on] the 14[?]th was 4,40[?] [UŠ]; the 27th was the-day-when-the-moon-appeared-for-the-last time. [Things?] will be good before you. Month Du'uz, year 12, [ye]ar(?) 8…[12]

(The term 'UŠ' is a unit of time: 1=4 minutes.)

Since the first horoscope had not been published, the editor of this one doubted the evidence of his computation, since most Babylonian horoscopes could be dated to the period of the Seleucid dynasty which succeeded to this part of Alexander the Great's empire in 312 BCE. Now, however, that a fifth- or early fourth-century date is confirmed, it seems difficult to justify the old view that the Greeks could have invented the casting of nativities. Certainly in Babylon the conditions were ideal for such a practice to be started, since, as we have seen, there had long been an active pursuit of a system for predicting the future from celestial events, there had equally long been systems for producing predictions for individuals, and the zodiac had recently been invented. Moreover, the earliest surviving Greek horoscope (found in a literary source) was only cast for a birth in 72 BCE (see below).

A corpus of the thirty-two Babylonian horoscopes now found is being prepared, and already it is possible to see both continuity with Babylonian tradition, and anticipation of developments of astrology previously assigned to the Hellenistic world. The continuity with tradition is visible in the closeness of the horoscope data to the astronomical texts, in particular to those known as 'almanacs'. Furthermore, where interpretations are given, they are clearly reminiscent of predictions for individuals in the omen-literature. Just as it is predicted in that literature, for instance, that a man with a mark(?) above his pubis will be powerful in relationship to his wife, or a man dreaming that someone gives him a seal will have a son,[13] so the horoscope interpretations proceed to discuss in similar style the native's family, fortune and so on. This closeness to the omen-literature is clearest in a horoscope which offers an interpretation of each datum, cast for 3 June 235 BCE:

> Year 77 [of the Seleucid Era, month] Siman, [from?] the 4th [day until? some? time?] in the last part of the night off?] the fifth [day], Aristocrates was born. That day, Moon in Leo. Sun in 12;30° in Gemini. The Moon set its face from the middle towards the top; [the relevant omen reads:] 'If, from the middle towards the top, it [i.e. the Moon] sets its face, [there will ensue] destruction.' Jupiter…in 18 degrees Sagittarius. The place of Jupiter [means]: [his life? will be] regular, well; he will become rich, he will grow old, [his] days will be numerous [literally, long]. Venus in 4 degrees Taurus. The place of Venus [means]:

> Wherever he may go, it will be favourable [for him]; he will have sons and daughters. Mercury in Gemini with the Sun. The place of Mercury [means]: the brave one will be first in rank, he will be more important than his brothers,… Saturn; 6 degrees Cancer. Mars: 24 degrees Cancer…the 22nd and 23rd of each month…14

(Here the name of the native is Greek; though it may not be a sign of ethnic origin, it does suggest a citizen of one of the foundations left by Alexander's conquest. There is another nativity of a man with a Greek name in the corpus.) Another horoscope, for 4 April 263 BCE sets out the predictions in a mass at the end, but seems to conform to the pattern of earlier single-omen literature:

> …was born…love[?]…they made. He will be lacking in wealth… His food will not suffice for his hunger[?]. The wealth he had in his youth[?] will not [stay]. His days will be long. His wife whom people will seduce in his presence will…[or; his wife, in whose presence people will overpower him, will bring it about…] He will have…s and women. He will see profit. Between [among or along?] the roads upon wealth he will…15

THEORETICAL TEXTS

From around the same time as the first horoscopes, we find the lists of nativity-omens from which astrologers worked. One divides each zodiac sign into beginning, middle and end, and offers predictions accordingly. We have one 'procedure text' for astrology, which incorporates a list of birth-omens. It begins with a schematic discussion of the increase and decrease of the lunar disc in any Babylonian month, and then appears to give instructions for finding the dodecatemories, a division of each zodiac sign into a microzodiac according to a method which we find in later Greek astrology. Interpretations of each sign, presumably in the micro-zodiac, follow: 'The place of Capricorn: he will be poor, he will be hysterical[?], he will grow sick and die. The place of Aquarius: [at the age of?] 40[?] years[?], he will have[?] sons; death by water.' Next there are predictions in relation to the planets:

> If a child is born when Jupiter has come forth, [then his life? will be] regular, well; he will become rich, he will grow old, [his] day[s] will be long. If a child is born when Venus has

> come forth, [then his life will be] exceptionally[?] calm; wherever he may go, it will be favourable; [his] days will be long. If a child is born when Mercury has come forth, [then his life will be] brave, lordly;…If a child is born when Mars has come forth, [then]…, hot[?] temper[?]. If a child is born when Saturn has come forth [then his life? will be] dark, obscure, sick and constrained.

The text continues with predictions (unfortunately missing) for what happens when each planet is visible in the West for the first time after conjunction, or disappeared in the East for the last time before conjunction, and then offers more for when various fixed stars 'come forth'.[16]

BABYLON AND GREECE

In the text just discussed one can already see some developments in astrological theory which recur in later Greek texts; further refinements occur in different horoscopes. One, for 264 BCE, deals with conception as well as birth, establishing the standard duration of pregnancy as 273 days, or ten sidereal lunar months, a figure commonly used in Greek texts; another refers to the exaltation of a planet (the sign in which its influence was enhanced). A recent publication of a text on lunar eclipses in relation to planetary positions and zodiac signs has suggested that the Babylonians anticipated the trine 'aspect' in grouping signs according to triplicities.[17] Nevertheless, the Ascendant, or point emerging in the East as the child is born, and all the secondary data dependent on it, which are so central to Greek astrology, are never mentioned.

As far as the texts we have are concerned, there remains a fundamental difference between the Babylonian approach to their science of the heavens and that of the Greeks; that is that their system, which had become very sophisticated by the last centuries BCE, was built on numerical relationships, rather than on a geometrical, kinematic model of the relationships between Earth and the stars, which, according to much later texts, appears in Greece in a crude form with the sixth-century Anaximander. This model is certainly evident in the work of Eudoxus of Cnidos in the fourth century BCE, who combined uniform motions of homocentric spheres about different axes in his model of the heavens. The Babylonians were interested in constructing periodic relationships, to establish the first

and last visibility of planets in analogy to those of the fixed stars, and it was thus that they applied systematic mathematical theory to astronomical data, probably from about 500 BCE. One of the indications of the difference between the two systems is evident in the way they ordered the planets: the Greeks ordered them according to their relative distance from Earth, while the Babylonians seem to have ordered them in accordance with ideas of their beneficent or maleficent effects.

However, despite the dearth of contemporary evidence for Hellenistic astronomy and astrology, it has become increasingly clear in recent years that Babylonian data were very important in Greek constructions of models of the universe. Whereas Otto Neugebauer, the major authority on the early history of the exact sciences, tended to argue that little more than a few concepts, numerical parameters and simple procedures passed from Babylon to Greece, recent work has revealed the use of Babylonian methods and data well into the Common Era, even after Ptolemy's *Almagest* of the second century CE.[18] Babylonian rules for the rising and setting of the Moon reappear almost unchanged in Pliny's encyclopaedia and in the secondcentury astrologer Vettius Valens.[19]

ANCIENT EGYPT

Before looking further at the background to Greek astrology, however, we need to return to the question of the Egyptian contribution. It should first be explained that Egyptian mathematics was rudimentary in comparison to that of Babylon; most importantly, there was no place-value system. Like the Romans, the Egyptians had separate signs for 1, 10, 100, 1,000 and so on, while in the placevalue system 11 represents not 1+1 but 1 x 10+1. The Babylonians had a sexagesimal place-value system, which allowed far more complicated operations, in particular with fractions. (It is due to this that degrees are divided into 60 minutes.)

The Egyptians were therefore not in such a good position to bring mathematical theory to bear on observations of the sky, despite a keen interest in the heavenly bodies. There were, however, significant contributions from Ancient Egypt to the development of astrology. Most important was the Egyptian calendar. The Egyptian calendar's relative simplicity in relation to the chaotic variations of the Greek city states, or the complexities of the arrangement of months varying between twenty-nine and thirty days used by Babylonian astronomers,

meant that it continued to be used by astronomers and astrologers until the time of Copernicus. Probably devised on the basis of the mean date of the Nile flood at the beginning of the third millennium BCE, it offered a year of twelve months of thirty days each, with five 'epagomenal' or extra days, modified late in the Hellenistic period by the addition of a leap day every four years. This civil calendar was extended over the whole of Egypt, because power was centralised, so that the alternative lunar calendar, according to which religious festivals were established, receded into the background. While there was a schematic Babylonian calendar, as mentioned above, it never became standard: different methods of measuring time coexisted for different purposes.

The other contribution to astrology was less direct. A system of time measurement according to the constellations first appears in drawings and texts on the inner sides of coffin lids of the Tenth Dynasty (about 2100 BCE). Led by the constellation of Sothis (Sirius), there were thirty-six constellations, known as *bakiu,* or decans in the anglicised version of the Greek term. The rising of each constellation just before sunrise (its heliacal rising) was taken as 'the last hour of the night' for ten days. Thus there were thirty-six for the year (excluding the epagomenal days). They were probably chosen to have the same period of invisibility as Sothis, and so all lie parallel to or south of the ecliptic. The risings of the decans in the night were used to divide the time into 'hours'. Since at the time of the rising of Sothis, twelve are seen to rise before dawn, the night hours are twelve. The diagonal calendars of 1800–1200 BCE show this division.

They were long out of relation to the calendar when they were put on coffin lids of Ramessid kings at the beginning of the first millennium BCE (see Plate 2). However, they survived as representations of the year's decades (groups of ten days), and were eventually brought into a schematic relation to the zodiac in the Hellenistic age, probably at the time when leap years were introduced. Each was taken to preside over 10 degrees of the zodiacal circle (hence the Greek name of decans, from *deca,* ten). The Egyptian names survive in astrological work into late antiquity, and the decans played many different roles in astrology thereafter. However, it was the Babylonian system of equinoctial hours, unvarying with the seasons, which prevailed among astronomers.

Ancient Egypt thus contributed relatively little to astrology. To assess the significance of the image of Egypt as the home of astrology, we need to look at the evidence concerning the Hellenised Egypt of

the Ptolemies, in the last two or three centuries BCE. But before that, we should survey briefly the background to astrology in Greece.

THE GREEK BACKGROUND

The first evidence of Greek interest in the sky comes from the poem *Works and Days* of Hesiod (609ff.), written in about 700 BCE, in which the rising of certain constellations is related to the farmer's year. There remains controversy about the dating of Mesopotamian influence on Greek thought evidenced in Hesiod: his *Theogony* contains Greek versions of Babylonian myths, and the *Works and Days* draws on Mesopotamian collections of wisdom-literature. Nevertheless, the influence of Babylon is clearly present at the beginning of Greek cosmological speculation. The Greeks translated Babylonian star-names as early as the sixth century.

The heterogeneous group of thinkers known traditionally as the Presocratics, though some are contemporary with Socrates, did concern themselves with cosmological speculation which could be called astronomy. Their role in the development of theories about the heavens is difficult to reconstruct, as the later authorities tend to retroject recent developments. For instance, the report that the sixthcentury Thales of Miletus predicted an eclipse is likely to be apocryphal, since there was no fixed calendar, nor was the solar year's length established in Greece at this time. The Greeks did not even distinguish the planets (literally 'wanderers') from the fixed stars until the fifth century. We can be fairly sure of one major borrowing from Babylon apart from names for the constellations in the fifth century—Meton and Euctemon's attempt to reform the calendar in Athens in about 432 BCE was based on Babylonian methods.[20]

One important group of Presocratics was the Pythagoreans, seen as disciples of the sixth-century semi-legendary figure Pythagoras. Their love for numerology led to the notion of offering mathematical values for relationships between bodies in the heavens, as part of a grand scheme in which everything had its number. Again, it is difficult to disentangle earlier from later doctrines, but the discovery of numerical ratios in musical harmonies was clearly important in the elaboration of the theory of the harmony of the spheres. We know this much from Aristotle's critique in the fourth century BCE.[21]

Plato (*c.* 429–347 BCE) reveals the continued relevance of astronomy to philosophy. His account in the *Timaeus,* a late work on cosmology, is obscure, and later astrologers were able to claim it for

their own. We shall see that it was influential in propagating the idea of a relationship between stars and human souls (Chapter 4). However important such philosophical backing may have been to later astrologers, and however much contact with Babylon may have increased after the Persian wars in the fifth century, there is little reason to suppose that more than calendrical schemes and astral names and mythology had reached Greece in this period from Babylon, and it was Babylonian data which combined with Greek cosmologies to yield something more recognisable as Greek astronomy and astrology.

We can discount Pliny's attribution (in the first century CE) of the first use of the zodiac to the sixth-century Cleostratus of Tenedos. It was Plato's younger contemporary, Eudoxus, who can first be seen to have drawn on Babylonian data not only in his description of the constellations, but also in his use of the zodiac. In Aratus' thirdcentury verse version of one of Eudoxus' works, there is a list of the stars rising and setting with the zodiac, the *paranatellonta,* which were later to be used by astrologers. Cicero, writing in the last century BCE, in a part of his work *On Divination* disparaging astrology, tells us that Eudoxus rejected Chaldaean prophecies based on the day of birth, which has been taken to give us evidence of the existence of astrology at this time. Even if we can trust our source, though, there is no certainty that astrology is at issue here, rather than hemerology, or omen-literature simply based on the date of birth. A more convincing reference to Greek knowledge of Chaldaean horoscopy before about 300 BCE comes in the fifth-century CE philosopher Proclus, who says that Theophrastus (c. 372–280 BCE) stated that his Chaldaean contemporaries had a remarkable theory predicting every event in the life and death of a human being rather than just general effects, such as good and bad weather.[22]

However, we know even less of the details of Hellenistic astrology than astronomy. Various suggestions have been made about the crucial role of individuals in bringing astrology from the East to Greece, from antiquity to the present day. Diogenes Laertius, in the third century CE, saw Democritus of Abdera, in Thrace (a younger contemporary of Socrates, famous for his 'atomic' theory), as the individual responsible, and at least one recent scholar considers that he may well have been the populariser of ideas from the East about the planets and the zodiac, and a namer of the constellations.[23] But the evidence of Seneca in the first century CE suggests only that he suspected that there were several planets, but gave neither number nor names.[24]

The candidate for the role of bringer of astrology from the East who has received most serious consideration from modern scholars is Berossus, apparently a Babylonian priest who settled on Cos. In the late first century CE, the historian Josephus credited him with revealing Chaldaean *astronomia* and philosophy to the Greek world. Vitruvius, in his treatise on architecture written under Augustus, records that he established a school of astrology on Cos, and mentions the work of otherwise unknown successors from the school. He credits him for his account of the waxing and waning of the Moon, and for inventing a particular type of sundial. He wrote a work giving a general account of his own country, the lost *Babyloniaca,* dedicated to the Seleucid ruler Antiochus I in about 280 BCE.[25]

However, the first datable individual given credit by at least one astrologer as a source was the Babylonian diviner Sudines, about a generation later. Strabo, the geographer (64 BCE–21 CE), calls him an astrologer, and a first-century writer on generalship refers to him as a Chaldaean prophet advising Attalos I during the war against the Galatians in 240 BCE, but he mentions extispicy rather than astrology. Sudines was a commentator on Aratus (BCE), and is cited by Pliny as the author of a work on the properties of stones.[26]

One scholar has recently suggested that the great astronomer of the second century, Hipparchus, who compiled the first comprehensive star-catalogue, and who used Babylonian constants in his account of mean synodic months, was the person responsible for popularising astrology. However, most modern historians have less inclination than the ancients to identify individuals as responsible for intellectual developments, and look rather to the circumstances of the period to explain traffic in ideas. Both Berossus and Sudines, whatever their contribution to bringing astrology to Greece, are examples of the migrations of individuals which clearly took place in the aftermath of Alexander's conquests, which involved Greek settlement in Persia. In fact, there is no way of ascertaining whether Greek astrology began in the third century BCE or later, though it seems unlikely to be earlier, given that the Babylonian development from omen-literature to astrology proper took place so late. Most Babylonian horoscopes date from the third century onwards, as we have seen.

PTOLEMAIC EGYPT

We need to look now at the evidence for astrology in the Hellenised Egypt of the Ptolemies, since most authorities have placed the origins

of Hellenistic astrology proper in this context. As early as Aristotle, there is reference to Egyptian astronomy as equal to that of Babylon, but the first definite reference to astrology from a contemporary writer comes in Diodorus of Sicily, writing in between 60 and 30 BCE:

> The positions and arrangements of the stars, as well as their motion, have always been the subject of careful observation among the Egyptians, if anywhere in the world…they have observed with the utmost keenness the motions, orbits and stoppings of each planet, as well as the influence of each of them on the generations of all living things—the good and evil things, namely, of which they are the cause. And while they often succeed in predicting to men the events that will befall them in the course of their lives, not infrequently they foretell destruction of the crops, or, on the other hand, abundant yields, and pestilences…they have prior knowledge of earthquakes and floods, of the risings of comets, and of all things which the ordinary man regards as quite beyond finding out.[27]

By this stage then, Egypt was established as the home of astrology.

In order to assess what evidence there is to substantiate the Greek image of Egypt, in the first place, we should survey what is known from evidence which is properly Egyptian rather than GreekEgyptian. Egyptian origin by no means precludes Mesopotamian influence, since Persia conquered Egypt in 525 BCE. In the era after Alexander's conquests, there may have been independent links between Egypt and Persia, even discounting the Greek channel of communication.

If it is correctly dated, an *ostrakon,* or potsherd, listing the planets and the zodiac signs in the vernacular Demotic, is a vital piece of evidence for the development of Egyptian astrology. It has been dated to before 250 BCE on astronomical grounds;[28] however, that is an unusually early date for an *ostrakon*.

Mesopotamian influence on Egyptian astrology seems to be indicated by the form of the zodiac, which included the two signs of the Balance and the Scorpion, whereas in the Greek form the Scorpion's claws accounted for the Balance. The Egyptians however called the sign the Horizon, because it marked the beginning of the Egyptian year. An example of the Egyptian form of the zodiac is to be seen on the ceiling of a temple at Dendera (see Plate 3).

Other astrological Demotic *ostraka* are dated between 17? BCE and 132 CE, and seem clearly based on Babylonian figures. There is

no use of Greek trigonometric methods, but then, Greek astrologers too often relied only on Babylonian models. Moreover, the Eternal Tables attributed to Egypt by writers of the first century CE and later were compiled from Babylonian almanacs.

There are a couple of papyri of the Roman period in Demotic which are apparently versions of texts going back to the mid-second century BCE. One lists predictions relating to the positions of planets in zodiac signs at the time of the rising of Sothis. They are predictions for the ruler and the land:

> The King of Egypt will rule over his country. An enemy will be [his and] he will escape from them again. Many men will rebel against the king. An inundation which is that which comes to [?] Egypt. Seed [and] grain will be high in price [in] money, which is… The burial of a god will occur in Egypt.[29]

It is the predictions which suggest a period in the mid-second century, as they concern kings of Egypt and wars with Syria and Parthia. There are other texts of this type from the Roman period, whose origins are difficult to locate. One, of the second or third century CE, which lists the concordance of Babylonian and Egyptian years, deals with eclipse-omens, without mentioning the zodiac.[30] The apparently primitive nature of texts clearly does not help dating, since old and new styles and methods seem to have coexisted. The impression given by such texts is of lack of contact with astrology proper; but there are Demotic horoscopes from the first century CE (though probably all of the same astrologer).[31]

The earliest papyrus horoscope concerns a birth in 10 BCE, while the earliest horoscope preserved in a literary text of the mid-first century deals with a birth in 72 BCE.[32] But the background to such horoscopes is hard to trace. The beginnings of recognisable Hellenistic astrology have long been located by scholars in the Hellenised milieu of Alexandria, and are taken to be exemplified by a group of theoretical astrological works, whose origins are difficult to date. The context of these can only be understood by considering the corpus of texts to which they belong, that is the 'Hermetic' treatises. These are pseudepigraphical texts, that is to say, they credit the authorship to well-known culture-heroes or gods. Written in Greek, they are attributed to the god Hermes Trismegistus (thrice-great) or Asclepius and his circle. A second-century source refers to forty-two books of Hermes, suggesting that there was a corpus of texts by that stage.[33] Until the publication of the Nag Hammadi library, found in Upper

Egypt in 1945, the consensus was that these texts represented a purely Greek context, and that any Egyptian colour was put in by the Greeks in Egypt in order to lay claim to ancient wisdom. (For instance, there is the assertion that they are translated from the words of the Egyptian god Thoth, identified as the Greek Hermes (see Plate 4)). But the library consisted of a collection of mainly Gnostic texts in Coptic, the Egyptian language written using the Greek alphabet, among which were Hermetic texts. The find has encouraged the view that the origins of Hermetic literature are to be found in the fusion of Egyptian and Greek ways of thought.[34]

The corpus of texts includes philosophical and technical works. The technical material includes magical, astrological, and alchemical treatises, which are probably older than the philosophical works on which scholarship has focused. Now, the astrological works attributed to Petosiris and Nechepso are usually seen as Hermetic, since it is often said that they gained their knowledge from Hermes. Because Petosiris and Nechepso are most consistently portrayed as the founders of astrology and cited for particular doctrines, most scholars have agreed that there must have been Hellenistic texts circulating under their names which represented an early synthesis of astrological doctrines. But no one believes that it was a historical Nechepso or Petosiris who should be associated with these texts. The names were probably chosen because Petosiris represented the prestige of the Egyptian priesthood, and Nechepso that of the Egyptian monarchy—like the other Hermetic texts, they are pseudepigraphical. Petosiris is usually identified as the priest whose tomb, which cannot be later than 341 BCE, was the object of a cult, while Nechepso was the name of a king listed among the rulers of the twenty-sixth dynasty (663–522 BCE).

There is no full text of Nechepso and Petosiris, but there are plenty of quotations of writings attributed to them, in some cases extensive. The extant citations in the standard collection[35] are very diverse; indeed it is hard to believe that the same authors were responsible for them. They fall into four groups.[36] The first offers a variety of astral omens which seem to be Egyptian developments of Mesopotamian models—presumably Ptolemaic, if not earlier. These citations are found in late authors: Hephaestion of Thebes (*fl.* 415 CE) and Proclus (410–485 CE) and John Lydus (*fl. c.* 560). Not all refer specifically to Nechepso and Petosiris, but only to the 'ancient Egyptians'. The omens include eclipses, the heliacal rising of Sirius, meteorological phenomena and comets (the most dubious fragment)

in relation to zodiac signs. Predictions are made either for Egypt or for the whole Eurasian continent (though here interpolations are quite conceivable), and could fit into a context of the third or second century BCE. They are similar to the Demotic documents discussed, in fact fragments 6 and 12 seem to be versions of the two on eclipses and the rising of Sothis discussed above. The standard dating of 150 BCE or a little later is based on this group of texts.[37] Specifically datable events referred to in connection with eclipses in a fragment of Hephaestion are a war between Greeks and Galatians, a barbarian expedition against Greeks bringing disorder to Macedonia and the humiliation of the master of Asia by barbarians.[38] All the events which could plausibly correspond to these predictions lie between 280 and 145 BCE. However, as one scholar has recently pointed out, the two different versions of Hephaestion's chapter on eclipses seem to depend very closely on accounts of the Greek historians Polybius and Diodorus of Sicily.[39] If he is right to suspect that the astrologer who composed the original version was using one of these sources, the 'predictions' would then have been made long after the events concerned, in either the last quarter of the second century BCE or the end of the first century.

The second group concern horoscopic astrology. In a citation of the second/third-century astrologer Vettius Valens,[40] Nechepso is described as having a vision, which is then revealed in thirteen books of verse (the thirteenth is often cited); here, as elsewhere in Valens' citations, a Hermetic style is evident. Valens also refers to a separate work of Petosiris called *Definitions*.[41] References are made in this second group of fragments to a method of calculating the length of life, the date of the native's conception and the position of the Lot of Fortune. There are discussions of good and bad periods in the native's life, based on planetary periods, the finding of the Lord of the year, and the revolution of the years of nativities. There is also discussion of various aspects of the native's life: travel, children, injury and death. Firmicus Maternus, of the fourth century, records Nechepso and Petosiris' doctrine of the birth chart of the world, the *thema mundi,* which he says they gained ultimately from Hermes. He also claims that Petosiris only lightly touched on the doctrine of the full and empty degrees, and denies that the two dealt with the *Sphaera Barbarica* (non-Greek names for the constellations).[42]

Nothing connects these references with the first set except for the attributions to Nechepso or Petosiris, though they have also, traditionally, been dated to 150 BCE. This goes for the last two groups

as well, the first offering two numerological schemes, most often connected with medical prognosis, and the second containing teachings on plants and stones in connection with astral influences. We shall come back to them in Chapter 7.

In the case of these last two subject-areas there are clear links with the rest of the Hermetic material. The decans seem to play an important role in Hermetic astrological medicine. In a sixth-century compendium of Hermetic doctrine, the *Book of Hermes,* the connections of decans with particular diseases and parts of the body are discussed.[43]

An excerpt from the Hermetic selection of the fifth-century anthologist Stobaeus reveals how the decans fitted in to the Hermetic conception of the universe. Here Hermes is pictured instructing his son Tat:

> – I told you, my son, that there is a body which encloses all things. You must conceive the shape of that body as circular, for such is the shape of the universe.
>
> – I conceive its shape as circular, even as you bid me, father.
>
> – And you must understand that below the circle of this body are placed the thirty-six Decans, between the circle of the universe and that of the zodiac, separating the one circle from the other; on the one hand they bear up, as it were, the circle of the universe, and on the other they circumscribe the zodiac, moving in a circle with the planets; they have the same force as the movement of the All, by turns with the Seven.

It goes on to explain that the decans are exempt from undergoing what the other stars do, in being made to stand in their stations or retrograde, or be eclipsed by the Sun. Instead they are not only free, they exercise power. No king is replaced, no city revolts, no famine, pestilence, flood or earthquake takes place without their influence. Since they command the planets, which command humans, they command humans. They also command them by the mediation of their sons, called daemons by the vulgar.

> – And besides this, my son, you must know that there is yet another sort of work that the Decans do: they sow upon the earth the seeds of certain forces, some salutary and others most pernicious, which the many call daemons… Moreover, in their course in the sky, they engender for themselves under-ministers, servitors and soldiers. The under-ministers, commanded by the

> Decans, circulate floating in the ether, whose extent they fill, so that there is no space empty of stars in heaven, they help to maintain the order of the universe, and have their own energy, although it is subordinated to that of the Thirty-six. From the under-ministers come destruction of animals other than human, in one region or another, and the swarming creatures that spoil the crops.[44]

Astrologers cite Hermetic teachings most often for the zodiac signs and the decans, the systems of the Places and the Lots, and astrological medicine. There are a few short works preserved in Greek which come under the name of Hermes. An early work concerns the meaning of thunder in each month, a late one earthquakes. There is a brief work on the astrology of particular enterprises, and another on the Places.[45] More enlightening, though chaotically ordered, is the compendium in Latin mentioned above, which includes some chapters also found in Vettius Valens. Apart from the decans it discusses bright stars, fixed stars, the conjunction of planets, the position of planets in the signs and the terms. It reveals how to make predictions about the length of life, marriage, parents, brothers, violent deaths, good days and bad.

It is obviously impossible to disentangle earlier from later elements, as is generally the case, now that we are dealing with a fullyfledged astrological system. There seems no half-way house between the celestial omen-literature and the detailed theory and practice revealed in citations or compilations of texts said to be the words of Hermes or Nechepso and Petosiris. It is impossible to be sure that the development of the system which was Hellenistic astrology did occur in Egypt on the basis of the evidence we have looked at. However, there is no doubt that Egypt was believed to be the home of astrology by the first century BCE, and that the primary geographical zone for astrologers was Alexandria, and that astrologers made efforts to cultivate Hermetic style or to claim acquaintance with Hermetic texts. So it would probably be perverse to reject the traditional view that Egypt was the place, though our texts do not throw much light on the process of the emergence of the new system of astrology. The basic doctrines of fully developed astrology will be explained in Chapter 4. From this point onwards the chronological account will be concerned with the changing role of astrology rather than with the development of astrological theory, though some account will be given of the literature of each period.

SUMMARY

Few dates of important developments are secure or precise in this account, but it offers a broad outline of current consensus. Details may be subject to controversy, but the general picture may be summarised as follows.

The omen-literature of ancient Mesopotamia included matter concerning the heavens, and when it was combined with the astronomical data derived from attempts to construct a calendar, horoscopal astrology developed, of which we have evidence from the fourth century BCE or slightly earlier. With the increased contact between this area and the Greek world after Alexander's conquest of Persia, both the zodiac, in the fourth century BCE, and Babylonian data and methods in astronomy and astrology, in the following centuries, were absorbed by the Greeks. They transformed both astronomy and astrological cosmology with kinematic models of the universe. True, the impact of such models on astrology should not be exaggerated: the major developments of astrological theory, as we shall see when we examine them, were obviously made on the basis of a flat diagram. Nevertheless, these cosmologies were important to the constructions of the universe in the more mystical branch of astrology, associated with Hermetic and Gnostic texts. At any rate, regardless of the astronomical contribution, it was also in Greek writings that the refinements of astrology began, most notably with the crucial role of the Ascendant.

The contribution of Ancient Egypt was limited to a standard calendar, and the original form of the decans. However, there was some Egyptian influence in the development of Hermetic astrology. Some of the material attributed to Nechepso and Petosiris looks like an Egyptian version of Mesopotamian omen-literature, and corresponds to material found in Demotic which could well have had its origin in the second century BCE, though recent examination may push this date forward into the next century. Another factor which encourages us to look on Hellenistic Alexandria as the cradle of Greek astrology, is that it is clear that by the mid-first century Egypt had acquired a reputation as such.

All the complexities of the discussion of the origins of astrology militate against any simple answer to the question of who deserves credit (or blame) for its invention. But it was certainly not solely a Greek creation. Furthermore, the role of Babylonian specialists of the last three centuries BCE in furnishing methods and data for Greek

astronomers and astrologers casts doubt on the common view that it was the Greeks who contributed the 'scientific' elements to astrology. Any such assertion, anyway, needs to be set in the context of questions about what the term 'science' means. One scholar has argued that Mesopotamian omen-literature was fundamentally scientific in impulse, in the sense that 'in their way [they] invented abstract thinking, analysis, deduction, research into laws'.[46] But of course, at the same time, the Mesopotamian texts are religious, in that they concern messages from the gods to humans. In the Hermetic texts, astrology is set in a firmly religious context. Yet the same astrological doctrines are propounded in entirely secular works, as we will see when we look at the astrologers of the Greco-Roman world. It is important to remember in the course of this enquiry that in the ancient world, there was never the same clearcut opposition between science and religion as there is now.

2

GREECE AND ROME

INTRODUCTION: THE BEGINNINGS IN ROME

In this section of our chronological history, new types of evidence are available, comments from non-astrological sources allowing some account of astrology's place in society rather than simply an account of technical issues. Also, this chapter is not so much about the development of astrological theory, since that has already been discussed in the first chapter, but is rather concerned with its role in a new environment, that is, Rome, and the profile of astrology in the changing world of the Roman Empire. However, Greeks still play a crucial role in this account, since astrology remained mainly the province of Greeks.

The beginnings of astrology in Rome are, unsurprisingly, the most uncertain. There is a dearth of material regarding any early Roman interest in the stars, though one comic play by Plautus (*c.* 253–184 BCE) gives a prologue to the star Arcturus. Ennius (239–169 BCE) is the first to mention *astrologi* (star-gazers) and zodiac signs, but of course this may not add up to a reference to astrology proper.[1]

Our sources are generally limited to a tiny proportion of the elite, and share their prejudices. The earliest references to astrology link it to the lower orders. Valerius Maximus, a Roman historian writing around 31 CE, relates an expulsion of astrologers (in company with the devotees of the foreign cult of Zeus Sabazios) from Rome and Roman Italy in 139 BCE.[2] As in most cases of expulsions, this was at a time of unrest, and astrologers were seen as a group likely to stir up trouble. The earliest definite reference by a Roman to astrology also associates it with the lower orders. Cato, the aristocrat famous for his conservative views, in his treatise on managing a farm written in 160 BCE, warns that a good overseer (the man in charge of the slaves, running the farm) should not consult Chaldaeans, among other

fortune-tellers.[3] This attitude may also reflect a concern that inferiors should not be stirred up, at any rate it is seen to conflict with the responsible attitude required of the man in charge of the estate. This concern was apparently borne out by the case of Athenio, an overseer who became the leader of the second slave-revolt in Sicily. He was described by the historian Diodorus as 'an expert astrologer'. Armed with this expertise, he predicted success for the revolt. He also insisted that the gods had revealed to him through the stars that he would become king of all Sicily.[4] In fact, after considerable success, he was killed in about 100 BCE. If this story is well-founded it foreshadows the later uses of astrology.

Cicero, a century later, in the part of his dialogue *On Divination* ascribed to his brother Quintus, who argues in support of divination, has him pour scorn on the fortune-tellers who cluster round the lower orders, quoting a passage from Ennius' play *Telamon:*

> In sum, I say, I don't give a fig for a Marsian augur, village *haruspices,* astrologers of the circus, Isis prophets, or dreaminterpreters. For they are not diviners by knowledge or by skill.
>
> But superstitious poets, soothsaying quacks are work-shy, mad or hungry. Ignorant of their own futures, they offer to teach others, They promise them great fortunes, but don't forget to beg a penny in advance.[5]

The astrologers of the circus are those who joined the other cheap fortune-tellers in the stalls round the area where the chariot-races were—the Circus Maximus. Horace, in about 35 BCE, in a context where he claims to lead the simple life, says that he listens to these diviners, while Juvenal in 112 CE refers to lower-class women resorting to such people.[6]

GREEK CULTURE AND THE ROMAN ELITE

But apart from such brief hints, the history of astrology which emerges from what has survived overwhelmingly concerns the elite. They, or their protégés, wrote our sources, and they were far more interested in themselves than in anyone else. In this context, the story of astrology at Rome is part of the story of how Greek learning was adopted by the Romans. From the third century BCE, a small number of the nobility had shown serious interest in Greek literature and philosophy. It was from 229 to 146 that the Romans conquered

Greece, but rather than ignoring the native culture as one would expect, they began to learn from it. By the end of the second century, a few aristocrats passing through Athens on their way East would stop to hear Greeks lecture. There was apparently less Roman interest in Alexandria, though it was regarded by some Greeks as the greatest city outside Rome, and it was certainly a centre of scholarship. However, it was not under direct Roman control until 30 BCE. Before then, Egypt was the less likely immediate source of information about astrology.

It was with the Mithridatic wars, in which the Romans fought and defeated the ruler of Pontus who had 'liberated' Greece from Roman rule, that Greek culture became really desirable, as educated Greeks poured into Rome. Some came as slaves, captured in the wars, others because there were fewer and fewer opportunities for patronage elsewhere. Pliny names the 'founder of astrology at Rome' as the slave Manilius Antiochus, who came to Italy with a cousin who was to become a well-known writer of popular dramatic pieces.[7] This may well have been during this period. However, we hear more of those representatives of Greek culture who came as ambassadors than we hear of slaves. Those who came on embassies enjoyed and developed the links of *amicitia* (friendship/patronage) with elite Romans. Some gave public lectures, or even took on young men as pupils.

Greek philosophers have been given much credit for making astrology respectable in Rome; in particular the Stoic school, whose influence on the Roman elite was considerable, have been cast as preachers of a fatalist astrological creed. The Stoics had from at least the third century BCE defended all types of divination. Evidence for associating the early Stoics with astrology in particular comes later. This is not surprising, given that astrology had probably not taken off in the Greek world, as we have seen. However, by the middle of the second century there clearly was real Stoic interest. Diogenes of Babylon, the head of the Stoa, came to Rome as an ambassador in 156 BCE, together with the Academic Carneades and the Peripatetic Critolaus. According to Cicero's account in the sceptical half of his dialogue on divination, Diogenes said that astrologers could tell the disposition of any child, and the calling to which they were best fitted, but denied that they could foretell any more than this, citing the case of twins with different fates.[8]

Diogenes' successor Panaetius was even more sceptical about astrology, according to Cicero, who claimed to use his arguments

in the *On Divination?* However, the pro-astrological views of the head of the Stoic school after him, Posidonius (c. 135–50 BCE), have often been seen as decisive in gaining favour for the discipline among elite Romans. Posidonius too was an ambassador, in 87 BCE, and Cicero attended his lectures nine years later. Little remains of his work, which apparently encompassed history, lexicography, geometry and meteorology as well as philosophy proper. Cicero refers to his building an armillary sphere representing the heavens,[10] which implies an interest in astronomy, while Diogenes Laertius (a third-century author of a compendium on philosophy) reports that he saw the heavens as the commanding faculty of the world (visualised as a great organism).[11] St Augustine attacks him for holding the view that a simultaneous illness of two brothers points to their being born under the same star-configuration, though he could be distorting his opponent's position in his argument about fatalism. Augustine says that Posidonius was 'much given to astrology…a staunch advocate of fate-making stars'.[12] At any rate, Posidonius is surely an important figure in popularising the Stoic view of fate which is represented by the arguments of Cicero's brother Quintus in Cicero's *On Divination*. This dialogue is a version of a Greek debate about the validity of divination. Quintus is made to bring up Posidonius' name, at the point where astrology is mentioned.[13] According to Quintus, divine providence provides signs of future events:

> It is not Stoic doctrine that the gods concern themselves with individual cracks in the liver or individual bird-songs… Their view is that the world was from its beginning set up in such a way that certain things should be preceded by certain signs, some in entrails, others in birds, others in lightning, others in portents, others in stars, others in dream impressions, others in frenzied utterances. Those who properly perceive these are rarely deceived.
>
> (1.117–18)

However, astrology plays a minor role in his discussion compared with other forms of divination.

Cicero draws on sceptical arguments in the part of the dialogue he ascribes to himself, where he describes astrology as 'incredible raving'. His picture of astrology may reflect the state of knowledge in educated circles, or it may simply reflect the aspects commonly discussed in philosophical debate:

> They say that the starry circle, which the Greeks call the zodiac, contains a power such that each single part of the circle moves and changes the sky in a different way according to the positions of all the stars in these and neighbouring regions at any time; and they say that that power is modified by the planets, either when they enter that very part of the circle containing someone's birth, or that part which possesses some familiarity or harmony with the birth-sign—they call these triangles and squares… They think it not only plausible but also true that howsoever the atmosphere is modified so the births of children are animated and shaped, and by this force their mentalities, habits, mind, body, action, fortune in life and experience are fashioned.[14]

His account reveals a limited knowledge of the discipline. He does not mention horary astrology; this may be because it was of less relevance to the philosophers, concerned with debates about fate and free will.

Despite the backing that Stoicism offered to astrology, its influence on elite Romans should not be exaggerated as the single factor in converting them to astrology. For one thing, philosophy did not cut ice with everybody. It was a commonplace of conservative rhetoric to present philosophy as a suspicious activity for a true Roman. Philosophers, as well as astrologers, were sometimes expelled from Rome, an action which mirrored this rhetoric. In 173 BCE, two Epicureans were expelled from the city, and in 161 a decree of the Senate forbade all foreign philosophers and rhetoricians to remain in Rome. Perhaps, in this case too, the measure was only directed against those who might stir up the lower orders. Such measures were passed again, long after Greek philosophy had become an acceptable elite pastime.

Geminus of Rhodes' *Introduction to the 'Phaenomena',* which is probably to be dated to the first century BCE, evinces an ambivalent attitude to astrology. His treatise is primarily astronomical and mathematical, but he mentions astrology several times in discussion of aspects of planets and zodiacal signs. He remarks, apparently endorsing 'Chaldaean' doctrine, that planets which find themselves in signs in opposition have beneficent and maleficent effects according to their natures, and talks vaguely of the 'sympathies' established by different aspects. However, he observes that it would be more logical for such relationships to

exist where signs are next door to one another. Furthermore, he is sceptical about meteorological astrology, arguing that that stars are merely signs of the seasons rather than effecting changes in the weather themselves. In this context, he denies emanations from the fixed stars but admits them from the planets.[15]

Though scepticism was expressed by some, it is in this period that we find the first Romans practising astrology: Publius Nigidius Figulus and Tarutius of Firmum. Nigidius, a senator and political ally of Cicero, was credited with reviving Pythagoreanism, and seen as having a keen interest 'in those matters which seem by nature recondite' by Cicero. Cicero also sees him as 'graced with all the other arts that befit a free man'.[16] Among his works were discussions of linguistic matters as well as augury, extispicy, thunder-omens and Stoic-Babylonian doctrines of the world's end in conflagration. He also wrote on catasterism, or ascension to the stars after death, and on the *Sphaera Graeca* and the *Sphaera Barbarica,* different sets of names for the constellations. This gave legends of the figures in the constellations of the zodiac, and referred to the rising and setting of other constellations in relation to the signs. The legends are mainly Greek, but in one case Egyptian, and in another, Mesopotamian. For later writers he was the great astrologer of the era, credited with predicting Augustus' power, and the evils of the civil war between Pompey and Caesar.[17] Tarutius, meanwhile, who was also known to Cicero, was asked by the encyclopaedist Varro to compute for him the horoscope of Romulus, founder of Rome, and of the city itself.[18] Notably, Varro's lost work on intellectual disciplines included a book on *astrologia*. The Roman elite had begun to take astrology seriously.

Romans could have been encouraged in this attitude not only by the prestige of Stoic philosophy but also out of respect for the astronomy about which they learnt from Greece. Posidonius' armillary sphere certainly seems to have elicited admiration. For most Romans, however, it was Aratus' astronomical poem which defined the limits of their knowledge. It was translated by Cicero, and by others. This poem must have been influential in preparing the ground for astrology. At any rate, it is more important that the prestige of Greek learning in general adhered to astrology. But to understand why astrology really took root among elite Romans, we need to look at the role it played in Roman politics.

FROM REPUBLIC TO EMPIRE

Astrology emerged as the Roman Republican system began to collapse, a coincidence which, in my view, was no accident. Astrology belonged with the sole ruler, as the state diviners belonged with the Republic. Generals with armies at their backs threatened the Republican constitution which ensured that power rested in the Senate as a body rather than in individuals. From the death of Tiberius Gracchus at the hands of a Roman mob in 133 BCE, the threat of civil war loomed large, and civil wars were only ended by Octavian's seizure of sole power after his defeat of Mark Antony in 31 BCE. The old constitutional arrangement limited the power which might inhere in diviners concerned with public decisions as much as other forms of political power, by diffusing it. There were teams of diviners, and both the College of augurs, who took omens from birds, and the Fifteen (originally Ten) custodians of the books of Sibylline prophecy were drawn from the Senate. The *haruspices* were concerned with extispicy, thunder and lightning, and prodigies, unusual events deemed to portend something important. The *haruspices* were representatives of an Etruscan tradition, which had been absorbed into the fabric of the Republic. The Senate always retained control; it could decide what to do after consultation of the diviners.

Broadly speaking, the diviners were expected to warn of messages from the gods, generally of their favourable or unfavourable attitude, and to advise on appropriate ritual action if it was necessary. Here is a typical entry in Livy, who wrote the history of the Republic from his perspective under the first emperor. It refers to 191 BCE:

> Two domesticated cattle in the Carinae climbed up a stairway to the roof of a house. The *haruspices* ordered that they be burned alive and the ashes thrown into the Tiber. At Terracina and Amiternum it was reported that there were several showers of stones, at Minturnae the temple of Jupiter and the shops around the forum were struck by lightning, at Vulturnum in the mouth of the river, two ships were struck by lightning and burned. On account of these portents the Ten were directed by a decree of the Senate to consult the Sibylline Books and they reported that a feast in honour of Ceres should be held and this repeated every fifth year; also that a nine-day festival should be celebrated and a period of prayer for one day, that those who offered the prayers should wear garlands and that she consuls should sacrifice.[19]

Many instances of omens, and diviners' responses to them, are recorded in the work of Livy. While he obviously saw omens as a significant part of the Republic's history, he noted that prodigies, in particular, had died out by his time. Cicero's treatise suggests that the way augury was currently practised, by watching chickens feeding to obtain a simple positive or negative reaction to an undertaking, was attracting criticism from some.[20] There were a number of antiquarian works on augury written in this period. Clearly, the old Roman institutions of divination were subject to reconsideration and debate at this time.

The first cases of Roman aristocratic leaders associated with astrology emerge at the beginning of the first century BCE, in the turbulent period when generals like Sulla and Marius were taking the extreme step of marching on the capital to take it by force. In 87 BCE the consul Octavius, a supporter of Sulla, in effect seized sole power for himself when he had his colleague Cinna deposed and driven out of the city. He was killed when Cinna recaptured it with Marius' help. According to Plutarch, the astrological diagram which had assured him of his safety was found on his dead body.[21] Sulla himself, the first to march on Rome, and the first Dictator whose rule looked as if it might be permanent, was apparently given the prediction by astrologers that he would end his days at the height of his fortunes.[22] In this case, if it was ever made, the prediction matched events. But Cicero, in his attack on astrology, mentions similar predictions made by astrologers for Pompey, Crassus and Julius Caesar, and none of them died of old age, at home and with glorious reputations, as promised.[23] Caesar was reputedly sceptical of diviners' predictions for him, fatally so in Suetonius' famous account of the warning about the Ides of March.[24] Nevertheless, predictions were obviously made for him, and after his death, his nephew and adopted son Octavian apparently encouraged the belief that his soul had been carried up to the stars, when a comet was conveniently sighted at the funerary Games.[25] Octavian, fighting for legitimation in a dangerous position, had good reason to take the support of the stars when it was offered.

Suetonius, the chronicler of the lives of the Caesars, records prophecies made for all the emperors. There are two reported astrological prophecies of supreme power for Octavian, one for his birth in 63 BCE, supposedly made by Nigidius,[26] and another set around 44 BCE, when the young man was in exile.

> At Apollonia, Augustus and Agrippa together visited the house of Theogenes the astrologer, and climbed upstairs to his observatory; they both wished to consult him about their future careers. Agrippa went first and was prophesied such almost incredibly good fortune that Augustus expected a far less encouraging response, and felt ashamed to disclose the time of his birth. Yet when at last, after a great deal of hesitation, he grudgingly supplied the information for which both were pressing him, Theogenes rose and flung himself at his feet; and this gave Augustus so implicit a faith in the destiny that he even ventured to publish his horoscope, and struck a silver coin stamped with Capricorn, the sign under which he had been born.[27]

Like the other tales of correct astrological predictions of greatness, this has the ring of an apocryphal version. It is set at a moment when Octavian was in obscurity, so that the prediction would be all the more impressive, and it is given a dramatic narrative structure. However, it is in an important sense archetypal for the imperial period. Suetonius observes in relation to Nigidius' prediction, 'Everyone believes this story', and there seems little reason to doubt that such stories circulated to receptive audiences. The importance of such tales lies partly in their currency, which reinforced astrology's credibility, and encouraged the idea that no one could become emperor without the backing of the stars. Furthermore, the fact that these accounts were elaborated does not suggest that there was no truth in them at all. Cicero's sceptical account backs up the supposition that powerful leaders in Rome were bombarded with positive astrological predictions.

More hard evidence for Augustus' own reliance on astrology to legitimate him comes from surviving archaeological evidence. Suetonius mentioned that Augustus had Capricorn put on his coins; in fact we find not only large numbers of coins with Capricorn on them (see Plate 5), but also sculptural reliefs, terracottas, paintings and jewellery. It is clear that Augustus made Capricorn his personal badge, and linked it with a number of other themes as part of his image-making. It carried a number of connotations, mainly associated with the idea of a new era, as Capricorn was the sign in which the Sun began to rise again after the winter solstice. Thus the zodiac sign became the sign of a new age of peace after the civil wars. Later emperors revived its use frequently, up until the third century. But

Suetonius actually asserts that, in addition to stamping Capricorn on his coins, Augustus published his horoscope. This story is backed up by the third-century historian Cassius Dio, who adds that the horoscope was published in an edict. There could be no more public fashion of proclaiming astrology's importance.

This official claim that Augustus' destiny was outlined in the stars was a profoundly monarchical action, which contradicted the claims he made to be restoring the Republic. The official diviners regulated by the Senate had given way to the unofficial advisers elevated by closeness to the ruler. In the place of the anonymous members of colleges, individual named diviners, who were honoured for their skill, emerged. They were not always astrologers, some were individual *haruspices,* but even in their case, often their traditional lore had been modernised with astrological additions, and they now tended to concentrate on individual fates, and to offer more precise predictions. Whereas the typical procedure reported in the classical Republic involved only endorsement of an action, or vague warnings of doom, as it collapsed, diviners are presented in the role of advisers about all issues involving the future. Of course, the fact that we hear little of private divination under the Republic does not imply that it never happened, but the fact that the individual has moved centrestage is an important change in itself. The astrologer, with his individualised predictions, is the sign of the political shifts which had taken place.

ASTROLOGY UNDER THE PRINCIPATE

It is under Augustus that astrology comes to the fore in literature. There is the first astrological work in Latin, indeed the first classical astrological work to survive in its original form, the didactic poem of Manilius. He followed a Greek tradition in writing in verse: not only was Aratus' *Phaenomena* a model, but, as we have seen, Nechepso was said to have written thirteen books in verse on horoscopic astrology. Lucretius had also offered a Latin example, in writing his great exposition of Epicurean philosophy in verse. But Virgil's didactic poem on agriculture, the *Georgics,* written for the literary circle centred on the new imperial court, was probably a more significant predecessor. It may well be the case that Manilius was no more an astrologer than Virgil was a farmer, and that much of the appeal was in the difficulty of versifying such unlikely material. At any rate, it offers the sort of synthesis of astrological doctrine the author thought suitable for the Roman elite, and dresses it up with a

rhetoric of fatalism which clearly recalls Stoic ideas. Since it is the first theoretical work to survive almost in its entirety, it is worth looking at its contents in some detail. (The technical terms are explained in Chapter 4.)

The first book, after a brief account of cosmological speculations, concluding with the view that the Earth is composed of four elements, offers an elementary description of the heavens and ends with a discussion of comets as omens. It seems to visualise the Babylonians as the originators of astronomy and the Egyptians as the inventors of astrology. In the mention of the 'kings' and 'priests' who were responsible, there is presumably a poetic allusion to Nechepso and Petosiris. Book 2 gives the characteristics of the signs of the zodiac, expounds their geometrical relationships, the zodiacal and planetary dodecatemories, the cardinal points, the Twelve Places and the Eight Places. Book 3 describes the twelve Lots, the rising times and the Time-Lords, explains how to calculate the length of life, and concludes with a discussion of tropic signs. The fourth book gives an account of the characteristics of the zodiac signs imparted to the native, describes the decans and the influences of some of the individual degrees of the zodiac, depicts a map of the world along with the zodiacal rulers of each part, and finishes with a discussion of the effects of eclipses on different signs. The final book recounts *the paranatellonta,* or stars rising and setting with the signs. It seems likely that a treatment of planetary influences has dropped out at this point, and the following account of stellar magnitudes, with which the poet closes, may also be incomplete.

Apart from Manilius, Augustan literature furnishes us with ample evidence that astrology had become very fashionable in circles close to the court. For the most part, there are only occasional allusions to astrology, but in one case an astrologer is imagined as addressing the poem to the poet. In most cases the tone seems clearly lighthearted. However, the sudden appearance of astrological references can hardly be an accident—as in other areas, the poets pick up themes of imperial self-presentation.

Augustus was taking a risk in using astrology to legitimate his position, because he was opening up a way for others to follow. The risks were obviously apparent to him, because, in 11 CE, when he did not look likely to live much longer, he had a measure passed forbidding astrological consultations to be made in private, or to concern anyone's death. We do not hear of this measure being used

until his successor Tiberius was in place. Tiberius is presented in our sources as a tyrannical ruler, and it is where tyrants appear that astrology is a leitmotiv in the literature. He is the first emperor to be reported to have a court astrologer. The story goes that he met Thrasyllus while in exile in Rhodes, when he was out of favour with Augustus. His practice was to test astrologers when he needed their guidance. If they seemed unreliable, or fraudulent, they would be thrown off the cliff on the way back from his house, which was at the top of a precipice. When Tiberius questioned Thrasyllus, he was impressed by his answers, which included a prediction that he, Tiberius, would succeed Augustus. The future emperor then put his test-question: how did Thrasyllus' own horoscope appear for that year and day:

> Thrasyllus, after measuring the positions and distances of the stars, hesitated, then showed alarm. The more he looked, the greater his astonishment and fright. Then he cried that a critical and perhaps fatal emergency was upon him. Tiberius clasped him, commending his divination of peril, and promising that he would escape it. Thrasyllus was admitted among his closest friends, his pronouncements were regarded as oracular.[28]

This tale had sufficient mythical quality for it to be told and retold in versions of the life of Alexander the Great. Its appeal doubtless lay in its confrontation of the seer with the equivalent of the dictum Physician, heal thyself. For once, in the story, the seer comes up trumps.

Nevertheless, regardless of the folk-tale element in the story, Thrasyllus was real enough. An anecdote in Suetonius' 'Life of Augustus' presents him as a literary man rather than as an astrologer.[29] He is cited by later astrologers, and we have an epitome of one of his treatises, the *Pinax,* in which he cited Petosiris, Nechepso and Hermes. This is in fact the earliest securely dated mention of Hermes: Thrasyllus was thus one channel through which Hermetic astrology reached Rome. His friendship with Tiberius certainly brought rewards: though he had only received citizenship under Augustus, his daughter married the knight L.Ennius in about 15 CE. When Ennius was charged with *lèse-majesté* in 22, Tiberius vetoed the charge. Thrasyllus' granddaughter by that marriage married Naevius Sutorius Macro, the knight who was to act virtually as Tiberius' regent in his last years.

The first case in which the crime of astrological enquiry was linked

with treason came in 16 CE. Marcus Scribonius Libo Drusus, who was a young man related to the imperial family, had apparently consulted astrologers, magicians and dream-interpreters. The accusers argued that 'mysterious or sinister marks' made against the names of members of the imperial family and senators were in his handwriting, and a necromancer testified that he had been asked to use magic on Libo's behalf. Apart from Tacitus, who was hostile to Tiberius, the sources tend to agree that Libo was planning a coup. He committed suicide before the case could come to trial. The Senate immediately passed two decrees against astrologers and other diviners, and two men, either astrologers or magicians, were executed publicly, one being thrown off the Tarpeian Rock and the other beaten to death with rods to the sound of bugles.[30]

Naturally, Thrasyllus was not expelled; sources still reveal him advising the emperor. Indeed, Tiberius is envisaged by Juvenal in his years of self-imposed retreat on the island of Capri, as surrounded by a flock of astrologers.[31] According to Dio, their job was to find out the men whose nativities revealed an imperial future, so that they could be exterminated.[32] Various items of astrological advice to Tiberius are recorded: supposedly, he was told that Galba would become emperor, but only at an advanced age, that Gaius (Caligula) had as much chance of becoming emperor as of riding across the Bay of Baiae on horseback. Thrasyllus was also said to have prevented him from ordering the deaths of many, assuring him that he had many years of life left.[33]

EMPERORS AND ASTROLOGY

Many of the incidents recorded for Tiberius' reign prefigure those of other emperors portrayed as tyrannical. Domitian, at the end of the century 'had not failed to take note of the days and hours when the foremost men had been born, and in consequence was trying to destroy not a few of those who were not even trying for the attainment of power.' Caracalla (188–217), according to Herodianus, scoured the country for astrologers, magi and soothsayers to find the traitors he feared and to tell him the time and manner of his death.[34] In the case of Domitian, an incident where he exiled and had executed a man with an 'imperial horoscope' illustrates this theme. This man, Mettius Pompusianus, had been ostentatiously spared, and even made a consul by Vespasian, Domitian's father, an emperor who receives much more

favourable treatment from the sources.[35] His son, Domitian's brother Titus, also elicits amazement for his clemency in not only allowing men with imperial nativities to live, but also for warning them that they were in danger from another person. Clearly, Domitian is indicated as that person.

Improbable as the astrological secret police may seem as an imperial institution, the fear of those to whom astrologers had predicted an imperial future was not unjustified, even leaving out of account the fact that emperors, like most Romans, were not inclined to thoroughgoing scepticism about astrology. In two cases, both in 69 CE, the year in which four emperors ruled in a succession of coups, we actually hear of astrologers encouraging their clients to revolt with their predictions: 'the astrologers also urged him to action, predicting from their observation of the heavens revolution and a year of glory for Otho.' Six months later, Vespasian's supporters were reminding him of the astrological backing that he had, as they encouraged him to go for the throne.[36] However, though the worry that drove emperors to destroy possible rivals was well founded, encouraging astrologers to denounce their clients could be counterproductive. In Nerva's case, it was because he believed himself in mortal danger thanks to astrologers' betrayals, that he felt impelled to rebel, according to Dio. And Dio also blames Caracalla's search for information about his own death, and his treacherous successors, for driving the Prefect Macrinus to set a *coup d'état* in motion. When Caracalla's spy discovered from an African seer who the men were who were to succeed him, the spy warned the emperor so that they could be executed. But the letters reached the Prefect before they reached the emperor.[37]

Variations on the themes found in the case of Tiberius are legion. For instance, there are explanations as to why a future emperor was permitted to live: Domitian only spared Nerva because an astrologer said he would die soon anyway.[38] The theme of the astrological councillors, already in Tiberius' case a parody of the official *consilium principis* (Council of the Emperor), is given an extra twist when it is Nero's wife Poppaea who is using astrologers as her council.[39] The idea of a connection between the deaths of others and the emperor's own life recurs, but in an inversion of Thrasyllus' advice that they should be spared to lengthen the emperor's life, the astrologer Balbillus advises Nero that only the deaths of several senators can avert the danger for Nero presaged by a comet.[40] Again, the theme of consultations on the succession resurfaces, and again, an apparent

mistake on the part of an astrological expert is explained in the case of Hadrian, who chose Aelius Verus, who died before him:

> The emperor was acquainted with the horoscope of Verus… and adopted a man whom he did not really think suitable to govern the empire merely to gratify his desires…For Marius Maximus represents Hadrian as so expert in astrology, as even to assert that he knew all about his own future.[41]

Like Tiberius, Hadrian was an emperor who had himself become an adept astrologer. Septimius Severus was similarly credited with astrological skills such as were possessed by most Africans, according to the source. He noted with surprise that there was nothing imperial in the horoscope of his second son Geta, born on 27 May 189, to whom he left the empire as joint-heir with his first son Caracalla. Again the art is proved infallible, for Geta was murdered by his brother. Septimius Severus knew that he would not come back from Britain, from his horoscope. He also supposedly found his wife by making enquiries to discover a woman whose horoscope predicted that she would marry a king.[42]

Predictions of future power have been preserved for almost every emperor. But we hear of only one other case of publication in the manner of Augustus: that of Septimius Severus. Like Augustus, he was in much need of legitimation, since the Antonine dynasty had collapsed, and the successor had only lasted three months before being murdered. Septimius knew the value of such backing: Herodianus reports that the emperor published the dreams, oracles, omens and other predictions foretelling his power in his Autobiography, and had them represented in sculpture and painting on his public images. According to Dio, who had himself presented the emperor with an account of these omens, Septimius Severus had his horoscope depicted on the ceiling of the rooms in his palace where he held court, but was careful to ensure that the Ascendant was placed at a different place in each room, so that no one could know the full horoscope and use it as a basis for their own calculations.[43] It is possible that Dio, who seems to have been particularly willing to give credence to stories about astrology, which was one way of pleasing Severus, has embroidered on the basis of the existence of a ceiling depicting the night-sky, which may have been common since Nero decorated the domed room of his Golden Palace. However, he must have seen the ceilings concerned. Perhaps, if the state of the sky at a particular moment was represented, it was Severus' coronation-

horoscope. There was Hellenistic precedent for such publication. High up in the Taurus mountains, on the summit of Nimrud Dagh, a relief shows a conjunction of planets in Leo (represented as a lion, with stars in the appropriate places). This is the horoscope for the coronation-date of Antiochus I of Commagene after Pompey had returned him to power: 6 or 7 July 62 BCE (see Plate 6). It is in fact the earliest original Greek horoscope preserved, and backs up the association of astrology with monarchy. Astrologers were often used to check on the appropriate moment for coronation. Tacitus reports that when Claudius died (poisoned by his wife Agrippina, according to him), the Empress blocked every approach with troops, issuing frequent announcements about Claudius' health, to buy time in order to await the auspicious moment forecast by the astrologers.[44] As we shall see, this use of astrology to find the right moment for a coronation persists in the fifth century.

If Dio is correct, Severus had good reason to conceal his Ascendant, since it offered the possibility of calculating his death-date. Our sources are full of incidents where emperors' deaths are predicted. Astrologers asserted that the conjunction of heavenly bodies under which Tiberius left Rome in 26 CE precluded his return, according to Tacitus.[45] The historian remarks that the deduction that Tiberius had not long to live (the natural implication) was fatal to many. It is a favourite device in stories about predictions that a second interpretation, not originally apparent, is borne out in the fullness of time. However, the astrologers had reason to avoid directness in this instance. Nero's astrologers were apparently similarly careful not to mention death in warning him that he would one day be removed from the throne. Nero was unworried, he thought he could make a living as a lyre-player![46] Astrologers had to be cautious: such uses of astrology were, of course, high treason, for good cause. If the emperor's death-date were known, he was not much longer for the world, even if one did not believe in the magical powers of such predictions.

Thus astrologers were wise to act as an anonymous group. In the turbulent year of 69 CE, in response to Vitellius' decree banning them from Rome and Italy from 1 October, they posted an announcement with their own edict:

> Decreed by all astrologers
> In blessing on our State
> Vitellius will be no more
> On the appointed date.[47]

In response Vitellius executed any astrologers he came across, according to Suetonius. He did not have long to enjoy the satisfaction of proving them wrong, for he only survived three months afterwards. Despite the obvious risks, there are several accounts in which the astrologers confronted the emperor. When Caligula asked an astrologer called Sulla for his horoscope, he was told that his death was imminent. His response is not recorded. Similarly there is no record of punishment for two other cases concerning emperors' deaths, but good news is mingled with bad. Severus Alexander was told that he would die by the sword of a barbarian; he was delighted to believe that he would die gloriously in battle. Once again, the ambiguity of the prediction is a source of dramatic irony, for Severus was assassinated by a barbarian guard in his own army.[48] An astrologer told the incredulous future emperor Gordian, not only the date and manner of his own death, but also those of his son and grandson. But the man first predicted their imperial futures.[49] As is often the case, the narrative demands that the prophecy meets disbelief. Gordian might well be sceptical: he did not become emperor till he was 79, in 238 CE.

In the case of Domitian, his attempt to prove that the astrologer was wrong did not exclude his punishment. He hauled up the astrologer Ascletario, having heard that the man had predicted his imminent death. The man confirmed the story:

> Domitian at once asked whether he could prophesy the manner of his own end, and upon Ascletario's replying that he would very soon be torn to pieces by dogs, had him executed on the spot, and gave orders for his funeral rites to be conducted with the greatest care, as a further proof that astrology was a fake. But while the funeral was in progress, a sudden gale scattered the pyre and dogs mangled the half-burned corpse.[50]

Once again, as in the story about Tiberius and Thrasyllus, the seer is questioned about his own death and proved right. Suetonius tells the story as part of the build-up to Domitian's death. The actor Latinus, who happened to witness the scene, mentioned it to Domitian that evening, at dinner, when retailing the day's gossip. Domitian was disturbed. He remarked to his companions on the day before his assassination: 'There will be blood on the Moon as she enters Aquarius, and a deed will be done for everyone to talk about through the whole world':

> With the approach of midnight Domitian became so terrified that he jumped out of bed; and at dawn condemned a soothsayer from Germany who was charged with saying that the lightning portended a change of government. Domitian then scratched a festering wart on his forehead and made it bleed, muttering: 'I hope this is all the blood required.' Presently he asked the time. As had been pre-arranged, his ex-slaves answered untruthfully: 'The sixth hour', because they knew it was the fifth he feared. Convinced that the danger had passed, Domitian went off quickly and happily to take a bath; whereupon his head valet, Parthenius, changed his intention by delivering the news that a man had called on very urgent and important business, and would not be put off. So Domitian dismissed his attendants and hurried to the bedroom—where he was killed.[51]

The all-seeing astrologer was indeed a gift for the ancient writers of imperial history. Though we should be suspicious of the origins of such well-constructed anecdotes—indeed there are cases where we can see that details have been altered by a second author to show the astrologers as more accurate—there is less reason to doubt that the stories do offer some picture of the role of astrologers under the Empire. Clearly, many of the elite resorted to astrologers. Astrologers were consulted when a would-be emperor wanted to know of his chances, and where a favourable prediction was obtained, it was exploited to justify his cause. The role of court astrologers is harder to evaluate. Their use to evaluate prospective heirs, whether adoptive or natural sons, seems authentic enough. They were also used to select the right moment for coronations; we may assume that horary astrology was also used to advise on the viability of other enterprises. As for their part in considering rivals, there is some evidence from the fifth century that we shall be considering in the next chapter, that rivals' horoscopes were suppressed.

ASTROLOGY AND THE LAW

Further evidence of the seriousness with which emperors considered astrological consultations concerning the imperial family, and perhaps evidence of the prevalence of the practice, is afforded by the legal measures taken. To some degree they were developments of a policy which first appeared in the Republic. The first time that it is attested

that astrologers were expelled from Rome, as mentioned above, was in 139 BCE. Between the death of Julius Caesar and that of Marcus Aurelius in 180 CE, no fewer than eight, and possibly as many as thirteen, decrees expelling astrologers and other groups from Rome and Italy are recorded.

Most can be connected with specific circumstances causing unrest. The next decree after 139 BCE was issued by Agrippa, Octavian's right-hand man, in 33 BCE, when the confrontation looming between Octavian and Mark Antony was disturbing the populace. The ban, which covered sorcerers as well as astrologers, was limited to Rome.[52] The next banning order was issued after the trial of Libo in 16 CE, mentioned above, which presumably suggested that the restrictions imposed on astrological consultations by Augustus' decree of 11 CE were insufficient. At any rate, the Senate voted an expulsion decree for astrologers, other diviners and sorcerers soon afterwards, probably reinforcing it with a second decree. Suetonius mentioned that those who petitioned and promised to give up their practices were pardoned.[53] According to Paul, the third-century jurist, guilty diviners were sent to the mines or to exile on an island.[54] A further senatorial decree, against astrologers only, was issued in 52 under Claudius. This was after L.Arruntius Furius Scribonianus and his mother were exiled for enquiring from astrologers about the emperor's death, an enquiry connected with Scribonianus senior's rebellion against Claudius, which had been crushed.[55]

From Vitellius onwards, imperial edicts rather than senatorial decrees were used. He expelled astrologers together with anonymous pamphleteers from Rome and Italy in 69: as the third ruler that year, his position was naturally insecure, and according to Dio this edict was revived by his successor Vespasian before he reached Rome.[56] Vespasian also banned philosophers from Rome. This was a revival of Republican precedent, though philosophy was no longer a foreign activity for the Romans. The philosophers meant were presumably the street-corner purveyors of wisdom, who could well stir up the people in times of unrest. At any rate, Vespasian's son Domitian repeated the ban on philosophers,[57] and according to late sources, also expelled astrologers.[58] Perhaps thanks to the relative quiet that prevailed after the end of the dynasty begun with Vespasian, we hear only of one more expulsion edict, under Marcus Aurelius, and the evidence is vague.[59]

The trial of Libo under Tiberius was the first of many which can be related to the original decree issued in 11 CE. In the first case

after Libo, Aemilia Lepida was accused of *lèse-majesté* in 'conspiring through astrologers against the house of Caesar' (Tiberius). What exactly she was supposed to be doing, since a woman could not herself become emperor, is unclear. However, this charge was quashed, though she was convicted of adultery.[60] The context is clearer in the case of Lollia Paulina, who was accused of having entered into forbidden consultations with astrologers, sorcerers and the oracle of the Clarian Apollo.[61] She had been a rival of Agrippina for marriage with Claudius, and Agrippina seems to have regarded her as a threat. Claudius demanded her conviction, she was exiled and heavily fined. She then committed suicide rather than be executed by a soldier on imperial orders. A case where we know even more about the circumstances is that of the high-ranking pair M.Ostorius Scapula and P.Anteius Rufus. A man who had been exiled to the same island as the astrologer they were consulting (an Egyptian named Pammenes) hoped that he might secure his return by revealing a plot against Nero. Riffling through Pammenes' papers, he found the evidence he sought and sent it to Rome. Both men were allowed to commit suicide. A further such case is revealed by a horoscope (from a treatise) as well as the historians. Hadrian's great-nephew, and nearest male descendant, was charged with forbidden consultation of diviners.[62] This was at the end of Hadrian's reign, when his first choice of successor had died, and the new one was barely in place. The last such case actually involved a future emperor, Septimius Severus. He was indicted for consulting diviners and astrologers about the imperial power in about 189. Though he was guilty, if our source is to be believed, he was acquitted by the praetorians because of the increasing unpopularity of the emperor Commodus.[63]

Frederick Cramer, who has made a specialised study of these trials, adds five more cases up until 205, since the mention of magical arts may very often include astrology.[64] There were also four cases up to 96 CE, excluding those already mentioned in connection with highranking Romans, where we know that astrologers were tried.[65] Some of these were mentioned in the preceding account.

Despite the existence of harsh laws throughout the principate, it is obvious that they were only applied sporadically. The reimposition of expulsion decrees shows that they were only conceived as emergency measures. The jurist Ulpian comments that it was thought in the first place, even in these circumstances, that the study of the science itself should not be punishable, but only its practice. By the

time of Diocletian, in 296, there was an empire-wide ban on astrology.[66]

DOUBT AND DISBELIEF

Many have thought that astrology suffered from a sceptical onslaught in the second century CE, which diminished its popularity. In fact, the datable horoscopes preserved on papyri suggest an even distribution up to the fifth century CE. Of course, these only relate to Egypt, where papyrus was used for paper and preserved, thanks to the climate. The horoscopes preserved in literary sources are more skewed by the small number of literary sources containing horoscopes, so owing to the large number found in one astrologer in the second century, they offer the impression that this was the era of the acme of astrology's popularity. Furthermore, the fact that the sevenday week, derived from the idea that a particular planet ruled the first hour of each day, became widespread in the third century is an indication that astrology was more popular than ever after this era of so-called decline (see Plate 8). However we should briefly survey such evidence as there is for scepticism under the Empire.

As we have seen, historians and biographers tended to reinforce the idea of astrology's infallibility, though this may often have been in the interests of enlivening their work with good anecdotes. In two cases the authors of the *Augustan History,* writing in the fourth century or later, who are generally positive about astrology's powers of prediction, admit the possibility of error. When a scholarly friend of Hadrian raised doubts about whether a mistake had been made in casting the horoscope of his successor Aelius Verus, Hadrian is said to have replied: 'It's easy for you to say that, when you are looking for the heir for a property, not to the empire.'[67] One imperial biographer is pleased to record the mistake made by an astrologer. Marons Aurelius had twin sons, but though the astrologers forecast a future as glorious for Antoninus as Commodus, the former died at the age of four.[68]

In the case of Tacitus, traditionally regarded as more hard-headed by modern scholars than Suetonius and the unreliable authors of the *Augustan History,* which dealt with the emperors from Hadrian onwards, there is explicit consideration of the issue. In a rare personal digression, which comes after the anecdote about Tiberius and Thrasyllus discussed above, the historian remarks: 'When I hear this and similar stories I feel uncertain whether human affairs are directed

by Fate's unalterable necessity or by chance.' He embarks on an account of two philosophical schools of thought on the subject:

> Many insist that heaven is unconcerned with our births and deaths—is unconcerned, in fact, with human beings—so that the good often suffer, and the wicked prosper. Others disagree, maintaining that although things happen according to fate, this depends not on astral movements but on the principles and logic of natural causality.

The former group would most naturally be identified with the Epicureans, one philosophical school which was hostile to astrology as to all types of divination. The second sounds like the Stoics, though, as we have seen, they are usually seen as the supporters of astrology. Tacitus proceeds to tell us the general opinion:

> Most men, however, find it natural to believe that their lives are predestined from birth, that the science of prophecy is verified by remarkable testimonials, ancient and modern; and that unfulfilled predictions are due merely to ignorant impostors who discredit it.

Tacitus concludes with reference to the forecast of Nero's reign by Thrasyllus' son, thus framing his discussion with two correct prophecies.[69] However, while his attitude in the *Annals* seems on balance one giving credence to astrology, he seems more sceptical in his earlier work, the *Histories*.

More obviously sceptical are the first group of philosophers he alludes to. We hear little of philosophical attacks on astrology's credibility in the first century CE, though presumably Epicurean, Cynic and some Academic philosophers continued their schools' opposition to all forms of divination. When the attacks on astrology do come in the second century it is notable that they do not deny the stars' influence on mundane affairs, though they are sceptical about astrologers' ability to discover the influences. The context of these attacks is almost invariably an attack on fatalism, and they are often concerned with divination in general, carrying on a long debate, as is the case with Diogenianus and Diogenes of Oenoanda.[70] The latter's attack is part of the teachings he left inscribed on a wall in a portico in his home city.

The first surviving attack specifically concerned with astrology is the work of Favorinus of Arles, a famous intellectual and Academic philosopher who flourished in the early second century CE. It comes

to us mediated by his contemporary Aulus Gellius, who says he heard Favorinus give the lecture in Greek in Rome, and recounts it to an imaginary group of dinner companions.[71] There are many similarities with Cicero's arguments in Favorinus' lecture. He expresses scepticism about the claims for astrology's great age, adding that human history is too short to allow for the necessary observation. He points to the fact that people born at the same time, as exemplified by twins, have different destinies, while those born at different times may have common destinies, and argues that astral influences, if they are all-pervasive, should affect all living things, not just humans. He denies the Chaldaeans accuracy outside their own area, citing the fact that the stars oversee different weather in different places (a version of an argument based on the relativity of earthly locations). He also includes several objections not found in Cicero. He points out that the number of fixed stars and planets cannot be known, so not all influences can be understood. He also casts doubt on whether the moment of birth or of conception is the crucial one, and whether the times can be accurately established. He attacks the idea of a chain of causes; the very idea that all our most trivial actions are immutably predestined is ridiculous. What possible connection can our brief little lives have with the grandeur of the universe?

Alexander of Aphrodisias, a Peripatetic, also attacked astrology in the context of fatalism. As we shall see in Chapter 4, he was prepared to allow the stars physical effects; they create the four elements, and their mixtures, determining the creation, destruction and transformation of matter. But he allowed them no effect on the soul, and so free will prevailed.

Quite different was the assault on astrology made by Sextus Empiricus, a Pyrrhonean sceptic. It is part of an attack on rationalism, beginning with two questions: Does any knowledge exist? Can anything be learned? Both received a negative answer. He goes on to destroy philology and grammar, rhetoric, geometry, arithmetic, music, logic, physics and ethics as well as astrology. This might seem to testify more to the place of astrology in the ancient educational curriculum than to scepticism about astrology *per se*. However, Sextus' attack, in the fifth book of his *Against the Mathematicians,* does offer some different sceptical arguments. It also includes quite a detailed account of astrology, based on the determinist version: 'sympathy' between terrestrial and celestial things as a result of emanations from the heavens makes the seven stars, in combination with the zodiac signs, efficient causes of terrestrial events. However,

as in the case of those philosophers arguing against fatalism, the thrust of his argument does not engage with the practice of astrology. Apart from more elaborately illustrated versions of the points put forward by Favorinus, he offers a lengthy attack on the problems with observation, though astrologers relied on tables which had eliminated most of the problems which he mentions. He also ridicules the association of human characteristics with the mythological attributes of zodiac signs.

Some later philosophers did not concentrate exclusively on fatalist astrology, and thus left room for some types of astrology. Plotinus, a Neoplatonist of the third century CE, while attacking fatalist astrology and ridiculing the personifications of the stars which lie behind astrological theories, is committed to a view of organic unity in the universe. Hence he allows that the stars announce the future, and may be seen as writing to be read by those capable of it, by systematically using analogy.[72] He further points to the numerous other factors that are important in determining destiny. His discussion seems indebted to Ptolemy's arguments in the *Prognostics,* usually known as the *Tetrabiblos* (see below). We hear that other Neoplatonists wrote commentaries on the *Tetrabiblos*.[73] We will come back to Plotinus and Neoplatonism in Chapter 4.

Philosophers were not the only people to produce arguments against astrology. Pliny the Elder, the author of a great compendium of natural-philosophical matters in the late first century CE, begins his second book with a discussion of the inscrutability of the divine. In this context, he attacks the attribution of events to people's stars and to the laws of birth, according to the initial decree of the supreme god.[74] However, he is not always so rigid elsewhere in the work. He praises Hipparchus: 'who can never be sufficiently praised, no one having done more to prove that man is related to the stars, and that our souls are part of heaven'. He also says of the comet which Augustus saw as containing his birth: 'to speak the truth, it was a good thing for the world'. Planets are allowed healthy or unhealthy natures, and each star has a natural effect, while conjunctions or other positions of the heavenly bodies cause periods of danger.[75]

In the seventh book, he sets out astrological theories on longevity. At the end, he comments: 'At the outset, variations in the science show how uncertain it is.' He then proceeds to discuss census records taken in his own time to illustrate the argument that people's times of birth are not related to their length of life,

going on to give examples of those born at the same time, with different fates.[76] In spite of this attack on astrology, he continues to cite a great variety of astrological authors in the rest of the work. Pliny's harsh criticism of the Magi is similarly somewhat undermined by his frequent citation of their views, sometimes apparently with endorsement.[77]

Pliny also attacks the doctor who regulated the diet of his patients by the motions of the stars, and made a fortune by it.[78] The satirists ridiculed the gullible as well: Martial, his contemporary, wrote an epigram satirising a man who as a result of hearing from an astrologer that he would perish soon, squandered the fortune left him– perishing in truth.[79] Lucillios, a Greek poet, perhaps writing under Nero, jibed at astrologers and their clients. A boxer went to an astrologer to ask if he would have a long life, and the man replied that he would if he left the ring, but would have Saturn as his horoscope if he kept boxing. Another astrologer, having calculated the hour of his death, found that he was still alive when the moment arrived. So he hanged himself out of respect for Petosiris.[80] Lucillios echoed the complaints of others when he wrote an epigram about his uncle, remarking that the astrologers had been wrong in predicting a long life for him. Funeral inscriptions testify to the resentment of relatives deceived by astrologers.[81] Alternatively the abuser of astrology might be the main target. Pliny the Younger tells the story of his enemy Regulus' getting a legacy, by means of using astrology and haruspicy to predict that an old lady on her deathbed would recover.[82] Juvenal, in his satire on women, accuses women of consulting astrologers about the deaths of their relatives. He is scathing about the general credulous attitude to astrologers, revered especially if they have been exiled or nearly escaped death, and particularly scathing about women who fancy themselves as astrologers, who cannot do the smallest thing without consulting the books. But all this is in the context of a general attack on women.[83]

The arguments of the philosophers were well enough known to be used in more obviously rhetorical debates. Seneca the Elder, the rhetorician, refers to the anti-astrological arguments of the rhetorician Arellius Fuscus,[84] while the oration once attributed to Quintilian offered a defence of astrology, put in the mouth of a son requesting to be allowed to commit suicide rather than fulfil the astrologer's prediction that he would kill his father.[85] In the second century CE, Lucian wrote one short work entitled *On Astrology* which seems to be a parody of a philosophical defence of astrology. He mentions the

two main points of philosophical attack: the planets do not move in the sky for humans, or alternatively, if the fatalistic creed is to be accepted, then there is no use in knowing what cannot be altered. The defender's answers proclaim that the stars, while they do not move for the sake of humans, do incidentally cause everything that happens, and argue that it is best to be prepared for what is to come, good or ill.

The plaints of Lucian's defender of astrology and of the astrologer Vettius Valens that no one believes in divination or astrology any more, or that it is dishonoured and rejected,[86] have been taken in conjunction with the fact that philosophical attacks on fatalism have survived from this period to argue that the second century CE saw a swell of sceptical feeling towards astrology. This is to ignore the rhetorical context of the lamentations of the defenders of astrology– it is commonplace, in prefaces to treatises on technical subjects, to argue that (usually thanks to a general moral decline) the subject is dishonoured and rejected, or only practised by dubious representatives of the art. As for the survival of anti-fatalist tracts, it would be unwise to use the argument from silence and insist that such arguments were unknown in the first century. There seems to be continuity in arguments from the Hellenistic period to the Christian era. Furthermore, satirical attacks on astrologers too have a continuous history. Nor should they be taken to indicate a general mood of scepticism: they testify to the popularity of astrology. They exaggerate, and their attacks should be seen in the context of their aims of ridiculing their targets.

ASTROLOGICAL LITERATURE UNDER THE EARLY EMPIRE

It is also the second century CE which offers many of our most significant astrological sources, so on the argument from survival, it could be claimed that this was a time when astrology enjoyed a vogue. Since Manilius, more whole treatises of which we have substantial parts had appeared. First was Dorotheus of Sidon, who wrote in Greek verse. Quite recently, an Arabic version of his treatise was discovered, edited and translated. Since the eight horoscopes in it date from between 7 and 43 CE, Dorotheus was probably writing between 25 and 75 CE, and offers the earliest full-blown treatise, covering horary as well as natal astrology. The poem begins with reference to the Hermetic tradition: Dorotheus refers to himself as

the king of Egypt, and addresses his book to his son Hermes.[87] He claims to have travelled in Egypt and Babylon and to have gathered the best of the sayings of the first authorities. We shall be returning to him in Chapter 5.

The poem which has come down to us under the name of Manetho, entitled *Prognostics,* used Dorotheus as a source, and the horoscope of the author is dated to 27/28 May 80 CE (3.738–50):

> But I will proceed by a new turn in verse and recall the stars of my own nativity when and in what sign it was that oft-sought Eilēthyia [the goddess of birth] delivered me from the womb so that they will prove for all time what Fate granted me to teach, the wisdom and beautiful poetry of the stars. The Sun was in Gemini and there too was beautiful Cypris [Venus] and also beloved Phaethon [Jupiter] and golden Hermes [Mercury], and in Aquarius at the time were the Moon and Phaenon [Saturn], and Mars was in many-footed Cancer and Centaur was turning about Midheaven, trailing his weapon. Thus the Fates determined my nativity.[88]
>
> (Neugebauer and Van Hoesen, L 80)

In fact this poem is clearly a compilation of a number of writers of different periods. One notable feature of the work is the refusal to deal with imperial stars, on the grounds that it will arouse official wrath.[89]

It is impossible to establish a chronology of astrology's development throughout the period; Manilius, while apparently revealing astrology at a fairly primitive stage, was drawing on much older sources. As we noted before in relation to Egypt, new and old methods coexist. The datable Greek horoscopes collected by Neugebauer and Van Hoesen illustrate this. Almost all of them are simply lists of planetary positions, with a small number of references to the Ascendant and the Lot of Fortune. In fact they usually give no more information than the Babylonian horoscopes. All four cardines are only mentioned in one horoscope taken from a literary source, and in five papyri. About a quarter of non-literary sources (fifteen cases, including papyri, an *ostrakon,* and graffiti) mention Lots. However, where there is subsequent discussion, as in the cases of literary texts, additional material comes in. The positions of the planets are obviously computed from 'Handy Tables', and are often only approximate, not giving the number of degrees within a zodiac sign. The planets appear in a standard order in the literary sources:

Sun, Moon, Saturn, Jupiter, Mars, Venus, Mercury, though the order is varied in the non-literary sources.

Vettius Valens was one of the major sources of the literary horoscopes; his *Anthologies* contain about 130 (partial or complete) nativities, dating from 37 to 188 CE, that is twice as many examples as all papyri put together. It remains unique among existing treatises in citing so many examples; the norm seems to be one or two, though of course many more such texts may have been lost. It is interesting to discover that authors chose to use real nativities for their illustrations, rather than simply making them up. In this case, clearly, a great deal of empirical material had been amassed.

Though his name is Latin, Vettius Valens came from Antioch, in Syria. He writes in a difficult Greek, using a mixture of contemporary and archaic language, which illustrates the literary pretensions necessary for any writer to be taken seriously in this era. His use of the clima, or astronomical-geographical zone, of Alexandria, has led scholars to conclude that this was where he settled. He only follows his own rules for computing rising times for this clima, but violates them otherwise. For instance, where natives of Palestine and Syria are concerned, he uses the classical rising times for Babylon. The datable horoscopes allow us to conclude that the work was composed over at least twenty years, from 154 to 174 CE.

His work was copied more often than almost any other ancient astrological work, and there were many emendations and additions. However, a new edition has appeared recently, which enables more in-depth studies to proceed. Nine books of the original ten survive; a 'Protreptic', or exhortation to study the art, and a 'Teacher's Book' are lost. Valens seems to have engaged in some sort of formal instruction, though to imagine an astrological school may be to stretch the evidence: he mentions his efforts to use a style appropriate to the layman in order to teach pupils.[90] A number of other fragments from later astrologers are collected in the new edition: some are included in the fifth-century compendium known as the *Book of Hermes,* which was mentioned in the last chapter.

Valens belongs very much to the esoteric tradition of astrology, which may be seen as Hermetic. In the preface to the seventh book, he suggests that an oath should be required of those reading the book, to accept what they read guardedly and as if it belonged to the mysteries, a term he often uses in relation to his theories.[91] He frequently exhorts the reader to treat his revelations like the mysteries, and not to reveal the secrets to anyone. He refers often to the 'divine

Egyptians', to Nechepso and Petosiris, and also to the *Book of Hermes*.

He also frequently cites the work of Critodemus, in particular his work *Horasis,* or 'Vision', a name suggesting the context of revelation. This astrologer, who is cited by Pliny the Elder in the first century CE, is also used by later astrologers, Hephaestion of Thebes in the fourth century and Rhetorius in the sixth. The horoscopes appearing in the sections cited from him, however, date to years from 37 to 104.

It would be too much to summarise the rambling work, which deals in great detail with the full complexities of astrological ideas, relating to horary as well as natal astrology. We shall be looking at the techniques of fully developed astrology in the second half of the book. Suffice it to say that those who subscribe to the common view that Valens exemplifies a period in which astrology is not fully developed have misunderstood the genre of astrological writings. Doctrines were always fluid, as we shall see, and there is no linear development through the centuries.

What does seem obvious is that Valens is attempting to be comprehensive. This was clearly not the case with Ptolemy, author of surviving works of astronomy, geography and philosophy, who wrote his *Tetrabiblos* (in four books) on astrology. The observations in his astronomical work *Almagest,* which is usually seen as the culmination of ancient astronomical achievements, belong to the years 127 to 41 CE and were made from the region of Alexandria.

In the nineteenth century it seemed incredible that a 'scientist' of the stature of Ptolemy could have written an astrological work, but the philological studies of Franz Boll restored its authorship, which had never been questioned till the modern era. In the *Tetrabiblos,* Ptolemy sets out the relationship he sees between the two disciplines:

> Of the two means of prediction through astronomy, Syrus, two are most important and valid. One, which is first both in order and effectiveness, is that by which we apprehend the aspects of the movements of Sun, Moon and stars in relation to each other and to the earth, as they occur at any time; the second is that in which by means of the natural character of these phenomena themselves, we investigate the changes which they bring about in that which they surround. The first of these, which has its own science [i.e. astronomy], desirable in itself even though it does not attain the result given by its combination with the

> second, has been expounded as best we could in its own treatise [i.e. the *Almagest]* by the method of demonstration. We shall now give an account of the second and less self-sufficient method in a properly philosophical way, so that one whose aim is the truth might never compare its perceptions with the sureness of the first, unvarying science, for such a person would ascribe to it the weakness and unpredictability of material qualities found in individual things, but would not refrain from the sort of investigation which is within the bounds of possibility, when it is so evident that most events of a general nature draw their causes from the heavenly environment.[92]

This view is based on an Aristotelian understanding of the universe, in which the ether or fifth element (which was thought to surround the universe) is seen as pure and unchanging, in contrast with the world underneath the Moon, the sublunary realm, made of mixtures of the other four elements. This is reflected in the levels of certainty possible in the two sciences. The planets and stars are located in the ether, and their movements are unchanging, so that certainty of prediction is possible, but on Earth, things are more complicated and harder to predict. Of the four elements on Earth, fire and air are affected by the motions of the ether. Ptolemy argues that the Sun exemplifies this, as does the Moon with its effects on the tides and on plants and animals, and that the passages of the fixed stars and planets affect the weather. This accepted,

> All would judge it to follow that not only must things already compounded be affected in some way by the heavenly bodies, but likewise the germination and fruition of the seed must be moulded proper to the quality proper to the heavens at the time.[93]

Just as sailors can predict storms and winds from relationships of the Sun, Moon and stars, even though they have no accurate knowledge, if someone knows all the movements accurately, and has distinguished their natures and potential qualities, such as the Sun's heating and the Moon's moisturising, he will be able to predict the weather. Furthermore:

> Why can he not, too, with respect to an individual man, perceive the general quality of his temperament from the [heavenly] environment at the time of his birth, as for instance that he is such and such in body and such and such in soul and predict

> occasional events, by the use of the fact that such an environment is attuned to such and such a temperament and is favourable to prosperity, while another is not so attuned and conduces injury.[94]

Thus Ptolemy answers the criticisms examined above—far from advocating fatalism, he presents astrology as a conjectural art, like medicine, which may make mistakes owing to the number of variables involved. As with medicine the individual qualities, such as race, country and upbringing, are to be taken into consideration. He blames bad practitioners for the frequency of mistakes, and exploitative people who pretend to be practising astrology for material gain, predicting things which cannot be known beforehand. In this he may refer to numerologists. He also answers the critics who point out that not everyone killed in one battle, for instance, has the same horoscope, while those born at the same time have different destinies. Some things are subject to fate, he says, some to chance. Some things occur through general circumstances and not through an individual's natural propensities, such as great fires, plagues and cataclysms, while other events accord with the individual's natural temperament through minor and fortuitous antipathies of the environment.

Ptolemy's defence of the art was doubtless a major factor in the popularity of his work. Perhaps the comprehensiveness of his explanations of how astrology worked was equally important. It is otherwise a rather simplified account of astrology, which neither adduces examples nor is specific about predictions. It does not discuss horary astrology.

SUMMARY

In this chapter we have looked at astrology in the context of the Roman Empire. We have been able to trace the arrival of the learned version of astrology, though we know much less about the kind of astrology which would have appealed to the person in the street. Astrology came to Rome as part of Greek high culture, backed by philosophy, literature and astronomy. Elite Romans seem not to have taken it seriously until the last century BCE. It is at this time that we begin to find generals prepared to listen to astrologers, and even some Romans becoming astrologers themselves. I argued that the timing of astrology's rise in profile at Rome just as the old Republican oligarchy gave way to the rule of one man, was no coincidence, in

that astrology is suited to a particular political role, that is in connection with the monarch. The old system, in which power was diffused among a small ruling class, needed diviners under firm control of the state. Astrologers were not bound to report their findings publicly; they could attach themselves to anyone whose star appeared to be rising. When Augustus chose to use astrology to legitimate his position as the first emperor, he was setting a risky trend, as he obviously realised when at the end of his life he issued a decree forbidding consultations in private. The chickens came home to roost with the next emperor, Tiberius, when astrology was linked with treason in trials. The stories about Tiberius and astrology set the pattern for all future emperors. The stories reinforced the idea of astrology's infallibility; everyone began to believe in an astrological secret police on the look-out for any rivals to the throne, and a coup would hardly be contemplated without astrological backing. All this made emperors try again and again to regulate astrology by law. Decrees were frequently issued banning astrologers from Rome and Italy, and trials were held to make examples of astrologers and their clients. This situation appears to continue into at least the third century, though we have less evidence than for the first one-and-a-half centuries of the Empire. It has been argued that the second century saw a decline in belief in astrology, but I argued that there was little evidence to support this. In fact, perhaps as a result of the accidents of survival, the second century appears as the age in which astrology flourished, with most of the major literature coming from this period. There were always some sceptics; though no one denied the stars a role in influencing events on Earth, some refused to believe that astrologers had found out how to predict events from the stars. Most scepticism is expressed in the context of a philosophical debate about free will and determinism, however, and is directed against fatalist astrology. The argument often seems divorced from the practice of astrology, and does not engage with the defence of Ptolemy until the third century. But apart from scepticism there was also satire directed against astrology, which ridiculed those who abused it for evil ends and those who believed too much.

3

THE TRIUMPH OF CHRISTIANITY

INTRODUCTION

In this chapter the chronological account continues through the Late Empire, but we have to go back in time to look at the background to some different groups of people who become important in the story of astrology in the later period. Here we encounter various Christian sects, but also Jews and other religious groups who came to be seen as heretics by the Church.

It was in 312 CE that the emperor Constantine was converted to Christianity. Thus began the process of Christianising the Roman Empire. While he made the Church his ally and diverted resources to it from the traditional religion, the continuing vitality of paganism is attested by the appearance of the pagan emperor Julian in 361, though his rule lasted only till 363.

ASTROLOGY AND THE LAW UNDER CHRISTIAN EMPERORS

The legal situation is revealed to us by the codification made under Theodosius in the late fourth century. The anti-pagan legislation of which the laws on divination were part was only sporadically enforced, and it was not until 407 CE that those simply practising pagan religion were pronounced to be breaking the law. However, the laws concerning divination were tougher than any previously in force. In 358 the long-standing connection of magic and divination apparent in earlier trials was formalised. Seen as essentially the same activity, they were one of the five major crimes, and therefore punishable by death.[1] Constantius was particularly concerned about those involved in his own entourage, and warned, in 358, that high rank would not save them from due punishment:

> If any wizard…soothsayer, diviner…augur, or even astrologer…should be apprehended in My Retinue or in that of the Caesar, he shall not escape punishment or torture by the protection of his high rank. If he should be convicted of his own crime and by denial should oppose those who reveal it, he shall be delivered to the torture house, iron claws shall tear his sides, and he shall suffer punishment worthy of his crime.

There were exceptions made for the traditional public *haruspices* for a short time before 357. In 409, the emperors Honorius and Theodosius required all astrologers to burn their books in the presence of the bishops, on pain of exile, and in 425 astrologers were included along with various heretics in an expulsion decree.[2]

In this period, punishments do become more severe. There is a new element in that the repression of divination of all sorts is part of the struggle against paganism. However, what this does is to strengthen the old attitude that enquiring into the future is forbidden. Whereas before, this attitude was implicit in the emperors' efforts to ban the use of astrologers while employing them themselves, now there was a sense that it was right only for the Christian god to see into the future. It was above all the *curiositas divinandi,* or desire to know through divination, which is presented as reprehensible in the Theodosian Code. Constantius made his orders clear in 357: 'The inquisitiveness of all men for divination shall cease forever.'[3]

The severity of these laws should not suggest that they were harshly enforced. As one scholar has observed, laws in this period should be seen as licences to take action, like a hunting licence.[4] Interested parties could invoke them. In fact there a couple of cases in which it was established that consultation clearly was only about private affairs, and so the guilty were allowed to escape with torture. Bassianus, a man of distinguished family, and a notary of the highest class, was charged with attempting to obtain foreknowledge of matters beyond his sphere. He claimed that he was merely enquiring about the sex of the child his wife was expecting.[5]

Firmicus Maternus, a senator from Sicily, who wrote an astrological treatise in Latin for a patron high up in the imperial bureaucracy in 334, was careful to be specific about the limits of astrology:

> Never reply to anyone who asks about the condition of the State or the life of the Roman emperor. It is both morally wrong and illegal…An astrologer who replies when he is asked about

> the fate of the emperor is a disgrace and deserves all the punishment he gets, because he can neither say nor discover anything. In fact no astrologer could find anything true about the emperor. The emperor alone is not subject to the course of the stars and in his fate alone the stars have no power of determination. Since he is master of the whole world, his destiny is governed by the judgement of the god most high; since the whole of the earth's surface is subject to the power of the emperor, he himself is also considered among those gods whom the supreme power has set up to create and serve all things.[6]

However, this is not a radical departure: Firmicus still wants to present the emperor's rule as fated: he offers him as an example of the power of Fate. Constantine, he says, was chosen to free the world from tyrannical government and to crush domestic evils by virtue of his own majesty, so that through him the stain of servitude might be washed away and the rewards of liberty returned.[7] Furthermore, the idea that the emperor is not subject to the stars was foreshadowed by Manilius, who remarked that the constellations of the southern hemisphere gave way to Augustus, the star who has touched our world.[8]

However, there is other evidence of more continuity in imperial policy than would be apparent from the Theodosian Code. In 371, the astrologer Heliodorus turned state's evidence, revealing the plot against the emperor Valens, in which he had been a consultant. Ammianus Marcellinus, the historian who is our source, records the rumour that Valens, apparently a fanatically Christian emperor, not only pardoned the astrologer, but made him his own astrologer and gave him high office.[9] This would parallel an incident in 70 CE, in which the astrologer Ptolemy Seleucus, who had encouraged Otho to revolt, was taken on by Vespasian.[10] Valens also had tortured and butchered a man when it was discovered that he had a horoscope in his papers labelled 'Valens', though he insisted that it was his brother's.[11] Here is a reprise of the theme of the tyrannical emperor, determined to keep his stars to himself.

When Parnasius, the prefect of Egypt, was disgraced under Constantius II, son of Constantine the Great, in 358 CE this was probably because of his consultation with an astrologer 'about matters which the law did not allow him to know'.[12] This echoes the earlier treason-trials. However, Julian the Apostate introduced a new element into the old theme of the astrological enquiry by the wouldbe usurper

about the reigning emperor. He dreamt the astrological answer, that Constantius would die when Jupiter entered Aquarius and Saturn reached the 25th degree of Virgo. Or so runs the versified oracle in the historian Ammianus Marcellinus.[13] Constantius certainly died at a convenient moment, in 461, so Julian never had to fight him for the throne.

We have much less evidence for astrology's being used by emperors from the later period, but there is a group of horoscopes from the fifth century which suggests that some old patterns persisted in the Eastern half of the empire, after the split between East and West. They have been re-edited and interpreted by David Pingree.[14] Two of them are coronation-horoscopes for emperors who usurped the throne. They seem to have been cast by the astrologer working for the emperor Zeno, whose rule was threatened by these rivals. One tells us that the usurper Leontius had chosen his moment to be crowned in Antioch on 27 June 484, after consulting two astrologers.[15] 'Our' astrologer, who may well be Maurianus, the astrologer who was consulted about the succession,[16] explains how they made mistakes in ignoring certain elements of the horoscope. Another horoscope, which is probably by the same astrologer, analyses the career of a grammarian, Pamprepius of Panopolis, who was involved in Leontius' revolt.[17] The horoscope records that he went from Athens to Byzantium, and there became associated with a great man, and pretending to be a 'wizard, or one initiated', became quaestor, consul and patrician before being put to death as a traitor. This was presumably in the wake of the failure of Leontius' bid for the throne, in 488. In the *Life of St Severus of Antioch,* it is recorded by a contemporary of an acquaintance that he was involved in divination and magic, hoping to ensure that the rebels would succeed. One Paralius, who repented of his pagan past, wrote to his former accomplices, reminding them of the sacrifices they had offered, their examination of the entrails, their consultation of oracles and their prayers to the pagan gods that Leontius, Illus and Pamprepius would triumph. The oracles assured them that victory would be theirs, and that Christianity would be defeated. The accusation that the rebels were pagans may not be substantiated, but the vignette reveals the atmosphere, the need for knowledge of the future, at the time of the rebellion.[18]

The other coronation-horoscope concerns Basiliscus, who was crowned Emperor of the East at 9 a.m. on 12 January 475, after Zeno had fled Constantinople with his wife, mother and household

gods on the ninth day of his consulship.[19] Again, another astrologer had cast the horoscope originally, but our astrologer arrives at a different conclusion, arguing that it was an inauspicious coronation. He was perhaps the astrologer of whom we hear in our sources who worked for Illus, who had been a supporter of Leontius and now supported Basiliscus. If he analysed the horoscope to reassure Zeno, our astrologer was right, since Basiliscus was overthrown after two years.

A fourth horoscope seems to have been cast concerning Theodoric Valames, who was elevated by Zeno, and perhaps looked threatening. Another horoscope, cast in 463, may also have been done at Zeno's behest. It shows that the native, the son of the Emperor Leo, would die at the age of 51/6 months.[20] Zeno, called Tarasicodissa at this time, had hopes of the succession; indeed he was (probably later) offered the hand of Leo's daughter Ariadne. Pingree suggests that the astrologer may have cast it to reassure Zeno about the succession. However, the precision of the date (though not uncommon in theoretical works) may suggest subsequent doctoring. This is also possible in the case of the horoscope of Theodoric Valames: the astrologer may have been forced to correct his original positive predictions after his fall.

It is hard to trace the history of astrology at court after this, and it is possible that it retreated to less conspicuous arenas. There is the mention of astrologers playing their traditional role in stirring up the people, in the company of other seers, on the occasion of an earthquake in Byzantium in the sixth century.[21] There was as good reason as ever for the state to want to control them, and, as we shall see, Justinian made an attempt to do so. But this time the state had the backing of the Church, and a moral mission.

JEWISH ATTITUDES TOWARDS ASTROLOGY

By the eighth century the great Jewish astrologer Messahala (known in the Near East as Masha' allah), who worked at the court of Baghdad, heralded a new era for Jewish astrology. Until quite recently it used to be assumed that Jewish interest was limited to occasional hostile rejection until the early Middle Ages. This is true of the Old Testament, a collection of books dating from the tenth to the second century BCE.[22] This negative attitude is also found in the writings known as the *Pseudepigrapha*. For instance the author of 1 Enoch, probably of the early second century, argues that astrology is evil,

having been taught to men by one of the fallen angels. This is an idea we find again among Christian writers. The third book of the *Sibylline Oracles* also condemns interest in Chaldaean astrology, and the book *Jubilees* presents it as wrong because it fails to leave matters to divine providence.[23] But during the same period of the second century BCE, some Jews more open to outside influences took a more positive view of astrological ideas. The Egyptian Artapanus and the Anonymous Samaritan claimed that Abraham had taught astrology to the Egyptians, and the latter that the art had been invented by Enoch. More detailed information comes from two documents of the third century CE which preserve earlier traditions. The *Testament of Solomon* depicts the decans, in the guise of daemonic powers, in discussion with Solomon. They say to him: 'We are the thirty-six elements, the world rulers of the darkness of this age', and proceed to describe themselves in terms which actually seem to refer to the signs of the zodiac. Each reveals the ills it causes on Earth and the way in which they can be conquered. Solomon takes control, ordering them either to prison, or to worthy tasks. Again, we find an idea which recurs in Christian and Gnostic contexts, that the astral powers can be commanded by God or his servants. God is equally firmly in control in the *Sefer-Ha-Razim,* in which the thirty-six angels who reveal what will happen on Earth each year, and the twelve angels, who 'hasten to bring the astrological signs of the sons of man into conjunction for love', are presumbly the decans and signs. We are told that Noah observed the astrological signs.[24]

But the only astrological text proper, probably from the first century BCE, is the *Treatise of Shem,* which was composed in Aramaic in Alexandria. There are twelve chapters, one for each sign, for instance:

> And if the year begins in Taurus: everyone whose name contains a Beth, or Yudh, or Kaph will become ill, or be wounded by an iron [weapon]. And there will be fighting. And a wind will go out from Egypt and will fill the entire earth. And in that [year] there will be wheat and abundant rains, but the nobles of that land and of the surrounding region will destroy them [the crops]…And devils will attack men but will not harm them in any way. And two kings will oppose one another. And the large river Nile will rise above its measure. Those who are on a ship in the midst of the sea…will be in severe misery. But at the close of the year there will be great blessing.

This represents a similar type of document to those found in Demotic or in Greek of around the same period. Some Alexandrian Jews, at any rate, were learning astrology from their neighbours. It is mundane rather than individual natal astrology, though in the eighth chapter it mentions that everyone born in Scorpio will survive birth, but be killed at the end of the year.[25]

One of the fragmentary documents found among the Dead Sea Scrolls preserves a generalised version of individual astrology. According to this work, which is written in a disguised form of Hebrew, a man born under the influence of Taurus will have his spirit divided so that six parts are from the 'House of Light' and three from the 'Pit of Darkness'. He will be poor and have long thin thighs and toes. Other documents from the same cave refer to the zodiac, one discussing the effects of thunder in different signs.[26] The nature of the Jewish sect to whom these documents belonged and the date are controversial. However, they are probably from the last two centuries BCE or early in the Christian era.

In synagogues in Palestine and elsewhere, from the fourth century onwards, depictions of the zodiac in a central position are quite common (see Plate 9). Of course it is uncertain what they represented; they could have stood for the twelve sons of Jacob, and thus the Twelve Tribes, or simply the months of the year. The few indications we have suggest that there was no one accepted position on astrology. The Hellenised Jewish writer Philo, head of the Jewish community in Alexandria in the mid-first century, and Josephus (b. 36 CE), a Jew who settled in Rome, seem to reject astrology but to be influenced by astrological ideas. They sometimes equate twelve-fold groups in the Old Testament (usually related to the Twelve Tribes), such as the twelve loaves in the temple or the twelve gemstones on the priest's breastplate, with the zodiac.[27] This foreshadows Christian and Gnostic allegorical use of the zodiac. The Babylonian Talmud shows that in the sixth century CE two opposed views were thought worth preserving. Of two third-century rabbis, one claimed that 'Israel stands under astrological influence,' and the other that 'Israel is immune from astrological influence.' The first supported individual natal astrology explicitly, looking to 'the constellation of the hour'. Under Mercury, for instance, a man will be born retentive and wise, because Mercury is the Sun's scribe.[28] This disagreement about astrology's value, the recognition of a conflict with Divine Providence, and the notion that a chosen group may be exempted from astral influence, are all themes which resurface in Christian writers.

CHRISTIAN ATTITUDES TOWARDS ASTROLOGY

While Christianity was illegal, there were few Christian discussions of astrology. Indeed, in the period when there was no institution able to create and enforce orthodoxy, many Christians might find encouragement to take astrology seriously in the New Testament itself. Most important was the tale of the Magi, clearly envisaged as astrologers, who followed a star which they saw as presaging the birth of a great king.[29] Apart from this sign of Christ's birth, there were also a number of celestial omens associated with his death, and his return.[30] In Genesis, too, there was a passage referring to God's creating the stars as signs.[31]

It was not only sects defined as heretical who sought to follow Jewish precedent in investing the zodiac with a symbolic relationship to cherished religious concepts. Bishop Zeno of Verona, who died in 380 CE, has left us a sermon to new converts just baptised, which offers the first Christianised zodiac to survive.[32] The theme is that the converts are born again under a new set of zodiac signs, destining them all to heaven. He links Aries and Taurus with Christ as sacrificial victim (lamb and calf) and Gemini with the Old and New Testament. Both Cancer and Capricorn represent the variety of vice. Virgo brings forth Libra, as Mary brought forward Christ as bringer of justice, while Leo is Judah the lion-cub and Christ resurrected. Scorpio recalled the passage where Christ was given authority to tread on snakes and scorpions, and thus refers to the Devil, like Sagittarius, whose fiery arrows recall St Paul's description. Aquarius stands for baptism and Pisces for the unity in Christ of Jews and Gentiles.[33] We know nothing of the reception given this unusual document, but we do know that Zeno's work in general was still circulating in Gaul, in the first half of the sixth century.[34]

Sidonius Apollinaris, Bishop of Lyons, writing letters on a pagan model, gives some indication of the accommodation which might be afforded to astrology by Christians as late as the fifth century. He refers to astrology with respect, as a serious and lofty matter, when writing to a friend who studies it. He reveals the names of several who dabbled in the art, including Leo, the great jurist of Narbonne, Magnus, a consul in 440, and the orators Lampridius and Lupus, and mentions the textbooks of Julianus Vertacus and Fullonius Saturninus. However, while showing off his knowledge of the technical terms, Sidonius does condemn astrology as contrary to the faith on an occasion where his friend Lampridius, who resorted to

astrologers, has been strangled by his slaves. He seems to suggest that his fate was deserved: 'Death enmeshed our reckless enquirer exactly when and where foretold…I fear that he who presumes to probe forbidden secrets sets himself beyond the pale of the Catholic faith.'[35]

Astrology seems to have been perceived as a threat to the authority of the Church, since it could be seen as an independent means of discovering the future. The discipline is almost invariably discussed in the context of fatalism and free will, as part of an argument which condemns the idea that the stars determine human behaviour rather than God. Astrology thus can be seen to rival Christian prophecy. It is intriguing, given this focus, to see that astrology is connected with movements regarded as heretical by the Church, though the association is not made by the earliest writers. Heretical sects were also, obviously, a threat to the Church.

Naturally, the notion of heresy could not hold much importance before the Church was established and united, but writings against Gnostics, theosophical sects, some of which drew on Christian ideas, are found as early as the mid-second century. Tatian, born in Assyria but converted in Rome, writing in about 180, in the context of a polemic against fatalism, ascribes astrology's invention to daemons. Man misused his freedom of will and became the slave of the daemons. But escape is possible by renouncing all worldly things.[36] Clement of Alexandria (*c.* 150–215) also refutes astrology in discussion of fatalism. He rejects the attitude of most people, shared by philosophers, according to which material changes are mainly the work of the stars; it is an impious view, since the stars are subject to divine providence. But he does not mention astrology in his assaults on Gnosticism.

Tertullian of Carthage, writing in about 200 CE, refers to the relationship of astrologers, magi and philosophers to heretical sects in *The Prescription of Heretics: t*hey all have c*uriositas, o*r desire to know what should not be known. In his *On Idolatry* he presents an attack on astrology as a response to a Christian's claiming his right to continue practising the art. He tells him:

> You know nothing, astrologer, if you did not know you would become a Christian. If you did know it, you should have known that you would have nothing to do with the profession … The hope of the kingdom of heaven cannot exist with the abuse of heaven.

He says that fallen angels introduced astrology.[37]

The first to argue against astrology as part of a polemic against Gnosticism is Hippolytus of Rome, who was martyred in 235. Dealing with the Peratic sect, he engages in a detailed discussion of the discipline, having disclaimed expertise. He is the first in a long line of Christian writers who re-use the arguments of pagan philosophers who argued against astrology as a fatalistic doctrine. He justifies the digression as follows:

> But since, estimating astrology as a powerful art, and using the testimonies given by its patrons, they [the Peratics] hope to gain credence for their own attempted conclusions, I shall now, as seems necessary, show the astrological art to be untenable, as my intention is to refute the Peratic system, as a branch springing from an unstable root.[38]

Christians were initially seen as philosophers, and indeed sometimes encouraged this impression. Thus, philosophers, perhaps because they were uncomfortably close to Christians, could be seen as heretics – we have already seen the association in Tertullian. Epiphanius of Salamis, in his *Medicine Chest for the Cure of All the Heresies,* written in 375–7, attacks eighty heretical sects, including Stoicism. It is in consideration of the Stoics that he discusses astral fatalism.

It is often difficult to reconstruct the role of astrology in heretical sects. In the case of the Gnostics, since the finding of the Nag Hammadi library of Gnostic and Hermetic texts in Upper Egypt, it has been clearer that there is a close connection between Hermetism and Gnosticism. As with Hermetic texts, the stars are seen as evil powers controlling humans. Devotees aim to free their souls of this tyrannical power, ascending through successive stages of true Gnosis, or knowledge, with the help of a redeemer, till they reach the celestial home from which they came originally.

From the hostile Christian sources, Irenaeus (c. 130–202), Hippolytus (*c.* 170–236) and Epiphanius (*c.* 315–403), who all wrote about Gnostics in their works attacking heresies, we glean odd references to the astrological entities peopling the Gnostic cosmos. The Phibionites supposedly treated as gods (probably daemons, evil powers intermediate between gods and humans) the single degrees of the zodiac (Monomoiriai in astrological terminology).[39] The Monomoiriai also feature in the cosmogony of the Marcionites, followers of the preacher Marcion who was expelled from the Church in 144, along with the zodiac divisions, decans, planets and

constellations. The Marcionites assigned numbers to all such entities, and engaged in numerological speculation.[40] The Gnostic Basileides, who taught in Alexandria in 120–40 CE, adheres to the doctrines of astrological geography, according to which different stars influence the physique and mores of different zones of the world, and to that of melothesia, according to which different parts of the body are controlled by different astrological elements.

One important Gnostic text which has been preserved is the Coptic *Pistis Sophia*. It illustrates the esoteric nature of such texts. In it the astrological entities are seen as heavenly powers, the twelve signs are aeons, the five planets are archons, and so on (see Plate 10).[41] This is in description of punishments. Elsewhere, the second of several spheres is called *Heimarmenē,* or Fate. Christ overcomes the tyrants of *Heimarmenē* by turning them so that they spend six months facing left, and six facing right, as they complete their spheres of influence. He has 'turned' their squares, triangles and figures of eight—this seems to be some version of the theory of aspects. When Mariam, the most important of the disciples in this text, asks whether the astrologers will be wrong, Christ replies that they will still predict correctly when the spheres are turned to the left. Here Christ's power to liberate his followers seems to be limited, and the astrologer's art guaranteed, at least for half the time.

There are theoretical compromises also evident in Origen (*c*. 185–255), though he does not compromise about the use of astrology in his congregation. In a sermon, he says that the anathema (curse of damnation) should be pronounced against those who seek in the stars the secrets of life, for they pollute the camp of the Lord and cause the defeat of the people of God.[42] He stops to attack astrology in the course of his *Commentary on Genesis,* as he reaches the reference to the creation of the stars as signs.[43] He gives an account of the points to be argued:

1 How our freedom is safeguarded when God knows in advance for all eternity the acts that each man is judged to have accomplished.
2 How the stars are not agents but signs.
3 That humans cannot have accurate knowledge of these signs, but that they are revealed for the sake of powers greater than humans.
4 The reason for which God has created these signs in order to obtain knowledge for the powers is examined.

In his discussion, Origen testifies to the powerful hold astrology had on the imagination. On the one hand, he attempts to remove the

power of decree over human fates from the stars and give it to God instead, thus illustrating just how close the two forms of predestination were. This points up the challenge of astrology to the Church. The first two points are an explication of this. But on the other hand, he ends up by conceding a great deal to astrology, as part of his explanation of the sense in which God made the stars as signs.

His argument is that the stars are to be seen as a kind of moving writing traced by God's hand in the sky, for the divine powers to read. These divine powers are something like angels, or good daemons. The writing prefigures all cosmic events from creation to the end of the world, and is put there to instruct the divine powers and make them happy. It reveals to them all divine mysteries, and in some instances communicates instructions for their missions, which they freely accept. The idea of the stars being there to be read like writing seems close to Gnosticism or Neoplatonism. The stars seem to be perceived as intelligent entities with souls, rather than as objects manipulated by divine will.

Origen thus concedes a good deal to astrology. He says that the stars offer information about a fixed future from beginning to end, and that in some cases they are part of the medium by which fate is played out; he also goes further. Evil powers, as well as good, seem to achieve access to the knowledge in the stars. Origen says that they act maliciously in accordance with their own wishes when they execute events prefigured by the stars, rather than reading the writing to discover what God wants. Even his argument about human access to this knowledge seems to offer a loophole. Though their knowledge may not be accurate, they may find some things out.

As the other Church Fathers, Origen re-uses old anti-fatalist arguments from the Hellenistic philosophers. Unusually, he adds the theory of the precession of the equinoxes to his arsenal. However, these secular objections are rather left behind in his elaborate account of the Christian version of Fate. Origen himself was declared a heretic in 399, 150 years after his death, thanks in great measure to the efforts of Epiphanius, who included him in his list of eighty heresies. Despite this he remained influential, and this fragment of his commentary is preserved in a collection of excerpts made in the fourth century. His concessions to astrology are not unique: Eusebius of Caesarea (265–339) seems to have allowed a non-fatalist astrology.[44]

Astrology continued to be attacked with the help of pagan philosophers in the course of discussions of fatalism. Diodorus of

Tarsus, Gregory of Nyssa, John Chrysostom and Gregory of Nazianzus in the fourth century, followed by Nemesius in the fifth, all addressed the question of astrology in Greek discussions of fatalism. Of Latin writers, 'Ambrosiaster', the author of *Questions about the Old and New Testaments* in the late fourth century,[45] and Augustine (354–430) did the same. Others dealt with it in the course of biblical commentaries: Basil of Caesarea (329–79), Ambrose (339–97), Procopius of Gaza (d. 538), and an anonymous subscriber to Arian theology of the fourth or fifth century. These polemicists used the old questions: how large numbers of people share characteristics, or manner of death, when they must have had different horoscopes, while twins show that those with the same horoscopes do not have the same fates. Another standard argument attacks the idea that the stars determine the mores of different zones.

However, even after these perfunctory attempts to demolish astrology, puzzled congregations might well demand answers to problems like the accounts of the birth of Christ in the Gospels. There is an implication in the tale of the Magi that Christ is subject to the decrees of the stars, which the Church Fathers wanted to avoid in their disquisitions. In effect they faced the same difficulty as Firmicus did in explaining the emperor's position. The stories about the Star of Bethlehem were doubtless first told in order to legitimate Christ's role as future king.

Ignatius and Tertullian, in the second century CE, argued that astrologers had indeed had true knowledge of the future, but that this had ceased from the birth of Christ.[46] Others, following the Gnostic example, saw baptism as freeing Christians from the astral determinism to which pagans were subject.[47] In the fourth century, Basil, John Chrysostom, Diodorus of Tarsus and Gregory of Nazianzus tried the tack of arguing that the Star of Bethlehem was not a star. John argued that this was clear from its path. Rather than being a subject for astrological investigation, it was a 'divine power with the form of a star, announcing the birth of the lord of the universe', as Diodorus of Tarsus put it.[48] But if so, how had astrologers been able to determine the significance of this apparition? Gregory solved this one in his poem 'On Foreknowledge' by explaining that the Magi were converted when they saw Christ, and renounced their art.[49] This was a development of Tertullian's argument that the command to the Magi to go back by another way was a coded order that they give up their occupation. Tertullian elsewhere tried the line that the three visitors were kings,[50] an interpretation generally accepted by the sixth century: this had the

double advantage of abandoning the problematic figures of the Magi and fulfilling Old Testament prophecies.

John Chrystostom, at the end of the fourth century, exemplifies the worry about Christians succumbing to what he saw as the pernicious doctrines of astrologers:

> Fear the shortest conversation with those who are infested with this doctrine. We give this advice, not because we fear the force and efficacity of their dogmas but because we fear your feebleness…In the same way as murder and adultery are sins and forbidden actions, so also trust in astrology and belief in Fate are perverse, forbidden…in truth, no doctrine is so depraved and bordering on incurable madness as the doctrine of Fate and astrology.[51]

The Church was becoming less and less tolerant of rivals, as it consolidated its hold on the Roman state. Augustine brought a new harshness to the pursuit of heretics. He largely succeeded in stamping out Donatism, which had coexisted with the Catholic Church in Africa for eighty-five years, and was a prime mover in instituting the condemnation of Pelagius and Pelagianism. He associated astrology with heresy as a result of personal experience, and thus had every reason to treat it like other heretical doctrines. He had studied the art while he was a Manichean, for some ten years. (Manichaeism was a sect founded by the Syriac-speaking Babylonian Mani, who drew on the ideas of the Mandaean Gnostic sect to which he had belonged.) Augustine knew something of the technical side, as is clear from the fact that a friend asked him whether the stars indicated that his worldly ambitions would be fulfilled.[52] Manichaeans were regarded by the Church as heretics, and influenced other heretical sects. Astrology was mentioned in connection with the Manichaean heresy in the expulsion decree of 425. In Augustine's sermon on Psalm 61 he advises the congregation to watch a former astrologer carefully to prevent backsliding: a commentator suggests that he was talking of himself.[53] If not, it is certainly a surprisingly harsh attack on someone present in the congregation. He complains elsewhere that congregations are full of people who receive astrological advice on when to undertake enterprises of all sorts.[54] For him, astrology was an evil to be stamped out.

In the *City of God,* Book V, Augustine argues against the Ciceronian argument that divine foreknowledge removes free will. However, he seems to see human wills as in the order of causes determined by God *(certus Deo)*. When it comes to astrology, he

finds himself in agreement with Cicero, and indeed trots out some of the old pagan arguments against astrology. The argument is tortuous. Christian prophecy is allowed, but pagan divination of the future, including astrology, is condemned as the work of evil daemons. This allows a small concession to the validity of astrology: the daemons sometimes obtain revelations from divine signs, which are mixed in with their otherwise lying predictions.

ASTROLOGY UNDER THREAT

As the attitude to heresy hardened, so moves were made against astrology in Church law. The first record of a Council forbidding clergy to be astrologers or magicians is from the Council of Laodicea, in 365. It is possible that it was interpolated later.[55] In the *Constitutions of the Apostles,* a fourth-century set of regulations attributed to the apostles, astrologers, along with debauchers, magicians and philosophers, are to be refused baptism or damned. It is also most severely forbidden for Christians to pray to the Sun, Moon and stars, or to swear by them.[56]

The really severe reaction came in response to the heretic Priscillianists, followers of the bishop of Avila who was blamed by his younger contemporary Sulpicius Severus for introducing Gnosticism into Spain.[57] He was denounced as a Manichaean and accused of magic and immorality by another bishop, for which he was executed in 385. Priscillian's own involvement in astrology is uncertain; but his followers were specifically attacked for the belief that human souls and bodies are subordinate to the stars, as we can see from the anathema pronounced against them, recorded for the Council of Toledo in 400, though the evidence is from the mid-fifth century. The anathema pronounced against anyone thinking astrology is worthy of belief, though not specifically associated with the Priscillianists, is clearly connected with them.

We hear of the odd case where individuals were condemned on the charge of their interest in astrology. Epiphanius, writing in the fourth century, claims that one Aquila, who refused to give up astrology after being converted in Jerusalem in 120 CE, was excommunicated. In 449, Bishop Sophronius of Constantina was put on trial for astrology and other divination by the so-called Robber Council in Ephesus. Here the connection with heresy was obvious: he was believed to be a Nestorian, and the Council had been convened to suppress this heresy.[58]

Leo 'the Great', who was Pope from 440 to 461, discovered a Manichaean infiltration into his own congregation.[59] He seems to have modelled his administration on the style of the emperor. Also goaded by the Priscillianists, he fulminated in a decree: 'Our fathers, in whose time this evil heresy broke out, rightly hunted it with great energy throughout the world, so that this impious madness should be driven out of the whole body of the Church.'[60]

In 572, at the Second Council of Braga, the anathema was pronounced against those using astrology before building houses, planting trees, or marrying.[61] The famous Quinisext, the council which took place in the presence of Justinian at Constantinople in 553, vigorously attacked astrology.[62] Procopius, in his posthumously published pamphlet attacking his patron Justinian, includes among his crimes his attacks on astrologers:

> They were bitterly hostile to the astrologers. Accordingly, the official appointed to deal with burglaries made a point of illtreating them simply because they were astrologers, flogging the backs of many of them and setting them on camels to be shown to jeering crowds all over the city, even though they were old men and respectable in every way. Yet he had nothing against them except that they wished to be authorities on the stars in such a place as this.[63]

(The 'official appointed to deal with burglaries' was the *praetor plebis,* a wide-ranging office created by Justinian.) Justinian was certainly hostile to pagan 'learning'. He closed the schools of philosophy in 529. Henceforward, there was to be a new curriculum, though of course pagan models remained influential. Cassiodorus (490–583), the figure most important in making the monasteries the new seats of learning in the West, was equally hostile to astrology.[64]

Scholars have tended to agree that the Church triumphed over astrology in this period. Certainly, it was more successful than the emperors were in their legislation to restrain it. Astrology seems to have gone to ground for at least two centuries in the East (at least, one Stephanus 'the Philosopher', from Persia, claims to reintroduce astrology to Constantinople at the end of the eighth century),[65] while in the West, astrological works simply drop out of the library lists, only reappearing in any number in the twelfth century.[66] In the West, the Church's stranglehold on learning probably proved more effective. However, in the East, it appears that astrologers only lowered their profile. Incidents from a number of saints' Lives and some of the

material in collections of questions and answers about the Christian faith suggest that astrology continued to flourish at the local level.[67] The local astrologer competed with the local holy man and the local doctor. During a period of earthquakes in 551–7, the people of Antioch arranged a public debate between an astrologer and Symeon, the saint who lived on a pillar.[68] Naturally, in the Life, the saint triumphs, but in the real world it was harder for the Church to vanquish astrology.

ASTROLOGICAL LITERATURE UNDER THE CHRISTIAN EMPIRE

The continuity of astrological literature in the Byzantine tradition is attested by the numerous volumes of the *Catalogue of Manuscripts of Greek Astrologers* (CCAG), which include sizeable texts, as well as by Arabic and Indian material which preserves the work of Greek astrologers. The major treatises which have come down to us in Greek are those of Paul of Alexandria and Hephaestion of Thebes.

In Latin there is much less. Firmicus Maternus, whose cautious advice on consulting about the emperor was mentioned above, wrote the last astrological treatise in Latin, probably composing it over the years between some time before 337 and 354.[69] He had been a lawyer, and brought his rhetorical talents to the defence of the art in the first book. Firmicus was also the author of a Christian attack on the mystery religions. The *Mathesis,* or 'Learning', shows no signs of being written by a Christian, so it has often been suggested that he was converted between the two writings. However, it may be that we expect too much change of conversion; Firmicus, as one of the elite, would have been reluctant to abandon all of the pagan heritage which was bound up with the elite identity. Also, when writing in a pagan tradition, it is quite possible that authors in this period would avoid explicit reference to Christianity. We shall be looking at his treatise in detail in Chapter 5.

After Firmicus there was little relevant in Latin. Astrology barely features in Martianus Capella's didactic treatise on the seven liberal arts (the *trivium* and *quadrivium).* But this work features the allegorical ascent to heaven of Philology for her marriage to Mercury the god of eloquence, and it is in this context that astrological entities, decans and 'ministers' appear personified. Macrobius' commentary on Cicero's *Dream of Scipio* does list the characteristics of the planets, from the natal astrologers, and indeed presents the soul as acquiring

characteristics from each planet on its way down through the spheres to join the body. He also gives the *thema mundi,* the birth chart of the world, and cites Plotinus as saying that the stars are signs rather than causes. We do know from Sidonius Apollinaris of textbooks' being used in Gaul at this period, but nothing remains. The evidence of Isidore of Seville, writing at the beginning of the seventh century, suggests that astrology has little contemporary meaning in the West.

For the Greek writers, by this period, the importance of Ptolemy's *Tetrabiblos* is clear, since they refer to his work or excerpt it. But although the fundamentals of Ptolemy's system are preserved, considerable variations are possible. None of the works are as restrained in style of analysis. Paul of Alexandria, in the fourth century, wrote an elementary work addressed to his son Cronammon. Its importance is suggested by the fact that a course of lectures about it was given in Alexandria between May and July of 564 CE, probably by Olympiodorus, a scholar of Aristotle.[70] It is this which has come down to us under the name of Heliodorus.[71] This would suggest that astrology could be fully part of the *quadrivium* and perhaps of the philosophical curriculum, still in the middle of the sixth century. As for Paul, we are able to date his work because he gives as an example for computation 'today, 20 Mecheir, 94th year of Diocletian', which corresponds to 14 February 378 CE.[72] Paul offers some astronomical background, devoting chapters to the planets' heliacal risings and settings, to their stations, to the Moon's phases, to the Sun's longitude for any day, to the establishment of the Ascendant and the Midheaven. He recommends Ptolemy's *Handy Tables* to anyone wanting accurate figures. However, his procedure for finding the Midheaven makes no distinction between longitude and right ascension. He follows a long tradition in citing Hermes as a source, and in fact draws on a Hermetic text, the *Panaretos* (Book of Fortunes), for a method of finding the Lots. Though the 'Introduction' is quite short, and is clearly intended only to offer basic information about each topic, it reveals the elaborate nature of what were seen as basic doctrines. Paul has almost the variety of methods of finding the planetary ruler of the chart as Dorotheus.

A long work of Hephaestion of (Egyptian) Thebes has survived. He tells us that he was born on 26 November 380. His three books of *Prognostics* were written in 315. He says that Ptolemy, the 'ancient Egyptians' and the Chaldaeans were his main sources for the first book, on the elements of astrology, Ptolemy and Dorotheus for his second book, on natal astrology, and the fifth book of

Dorotheus for his third book, on horary astrology. Indeed, he was clearly more of a compiler than a creative astrologer. The work contains only one horoscope which is contemporary, but it does preserve the horoscopes of the emperor Hadrian and two others related to it from the second-century Antigonus of Nicaea. His own horoscope is calculated for Clima 3, of Lower Egypt, using tables which agree with Theon's.

The *Centiloquium,* a hundred astrological aphorisms of two to eight lines, which is perhaps fifth- or sixth-century, illustrates the kind of simplified information which was common in the period. It was later attributed to Ptolemy, but is quite different from the *Tetrabiblos,* in its emphasis on horary astrology, on the Places and the fixed stars.

It was also in the sixth century that the writer identified as 'Rhetorius the Egyptian' put together a compilation from the works of Ptolemy, Vettius Valens, the so-called 'Anonymous of 379' (CE), Julian of Laodicea (early fifth-century) and Paul. A considerable part of the work seems to have been preserved in various manuscripts: it can be found in the appendices of the *Catalogue of Manuscripts of Greek Astrologers*. In the works associated with his name, as with most later astrologers, the elements are linked with the triplicities of zodiac signs. The familiar descriptions of signs as 'earth', 'fire', 'air' and 'water' signs date from this period. The material illustrates the elaboration which could take place. He lists eighteen day-time Lots and seventeen night-time ones, while the Places, on the model of the signs, have become gendered. From this work come a number of horoscopes, whose dates range from 401 CE to 516 CE, which, along with those of another Byzantine compilation, offer the fullest information of all the horoscopes. The fullest is one calculated for 497, with positions worked out in degrees and minutes, all the cardinal points, details about the ascending lunar node, information about the planets' houses, triplicities, exaltations and depressions and their relation to the fixed stars, decans, and Monomoiriai. The figures have been calculated on the basis of the *Almagest* and altered according to Ptolemy's constant for precession. It is a quite remarkable horoscope, and shows how astrology flourished in this period of repression (Figure 1). In fact, the horoscopes preserved from this century are much more likely to calculate the Midheaven properly than earlier ones, as well as benefiting from the tables of Ptolemy and Theon.

But the horoscopes stop after 516. Under Justinian, we find John

the Lydian collecting omens on thunder, lightning, eclipses and comets in his *On Heavenly Signs*, but there is no sign of natal astrology. There is a Greek horoscope of Islam cast in 775—by this time, and probably for a couple of hundred years before, Greek intellectuals had found the courts of the East more welcoming than Byzantium. We hear of Stephanos the Philosopher coming from Persia armed with astrological knowledge in the eighth century, but most traffic would have been the other way. Theophilus of Edessa (d. 785), who translated Homer into Syriac, was court astrologer at Baghdad. However, astrologers were not away for long. In 905, an astrologer cast the nativity of the emperor Constantine Porphyrogenitus;[73] the Byzantine revival was under way.

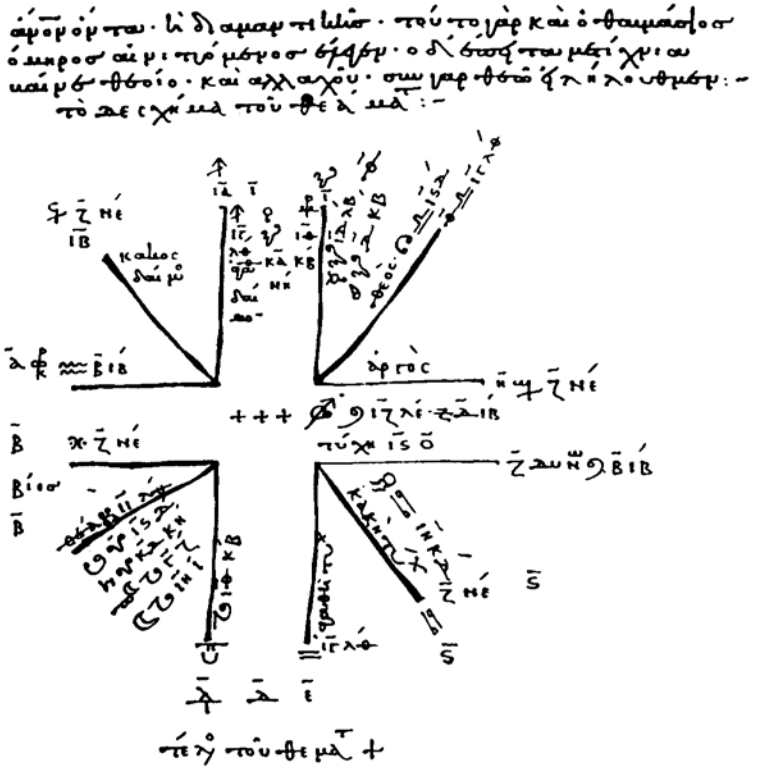

Figure 1 Horoscope from Rhetorius for the year 497 CE.

SUMMARY

Despite the dangers which threatened astrologers under the Early Empire, astrology thrived in the milieu created by the emperors. But in a Christian state astrologers found ideological opponents whose determination to stamp out their art offered a real threat. Christian hostility to astrology was grounded in the belief that astrology offered an alternative source of truth to the Church, and thus an alternative source of authority. Astrology was connected with heresy, which challenged the Church with rival versions of truth and of authority. Christian authors, though they might re-use sceptical arguments from the pagan philosophers, often failed to reject it entirely. Their ambivalent attitude parallels that of Jewish authors. Many Christians agree that the stars may be signs of the future, though they may not allow astrologers knowledge of that future. Frequently, they fall back on explaining that astrology is the work of evil powers.

The endless arguments about the opposition between free will and determinism were essentially about the opposition between God and the stars. If the stars controlled the fates of humans, humans appeared to be out of God's hands. Fuelled by this concern, the Church offered its own harsh punishments for those who practised astrology, especially those in authority, and waged ideological warfare to convince the rest. Its stance influenced the severity of state law. Punishments for astrologers, who were now assimilated to magicians, were far more severe. In theory any kind of astrological enquiry could carry the death penalty.

But there were obviously continuities from the Early Empire, as is illustrated by a number of cases reported by Ammianus Marcellinus, and best of all by a set of horoscopes from the fifth century. Here we can see that astrologers did not abandon their traditional interest in the imperial throne. However, they do seem to lower their profile between at least the fifth and the tenth centuries even in the Eastern half of the Empire, while the discipline seems to disappear completely in the West after the fifth century. But the Greek literature which remains shows that Christianity did not entirely triumph over astrology.

We have now surveyed astrology from its beginnings in Mesopotamia to the Late Empire. It is significant that Hephaestion in the fourth century and John the Lydian in the sixth preserve what have been identified as the oldest doctrines from Alexandria. This

continuity illustrates the conservative aspect of astrological texts, which we have often noted, and which causes such difficulty in establishing a chronological picture. In the next chapter, we shall be looking at the essentials of astrological theory, and then at the ways in which astrologers developed it creatively.

4

THE PRINCIPLES OF ASTROLOGY

INTRODUCTION: ASTRONOMY AND ASTROLOGY

The astrologer's cosmology is, of course, geocentric, reflecting the general consensus in antiquity. Though Aristarchus hypothesised a universe centred round the Sun in the third century BCE, this hypothesis never found general support. The geocentric cosmos accorded with perception from Earth: we look up to the sky and see the Sun, Moon and planets revolving round us. It seems as if there is a dome above us in which the stars are fixed, and thus a celestial sphere was envisaged revolving round a stationary Earth (Figure 3). The Earth was regarded by ancient astronomers as spherical, as a result of observation of its curvature.

If you were to watch the sky at sunset over the period of a whole year, making a note of the stars which appeared just after the Sun, by the end of the year you would have made a map of a line through the heavens known as the ecliptic (Figures 2, 3). The planets can be seen to remain within about 8 degrees (measuring the celestial sphere as 360 degrees in circumference) on either side, though the Moon may move outside this band of the sky occasionally. This band on either side of the Sun's path is the zodiac, and is divided into twelve equal sectors of 30 degrees each, named after constellations identified by the Greeks, or in some cases by the Babylonians, which lay in the area of each sector. The 360 degrees of the zodiac are measured clockwise from the First point of Aries. The positions of the planets are plotted in relation to the ecliptic, in degrees of celestial longitude (Figure 4). The planets are seen to move in the same direction as the Sun at different speeds, Mercury taking only eighty-eight days to go round once, while Jupiter takes twelve years to go round, thus being

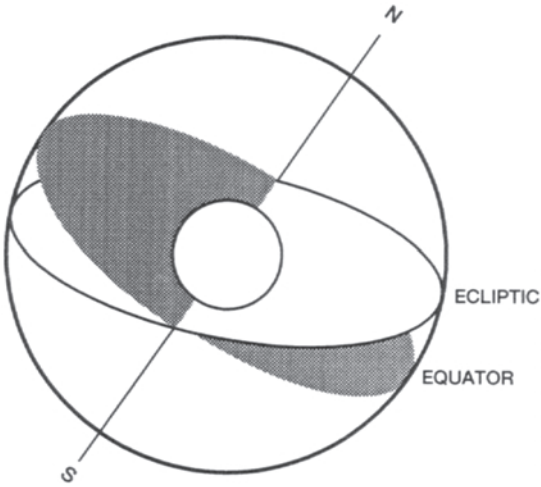

Figure 2 Ecliptic and equator

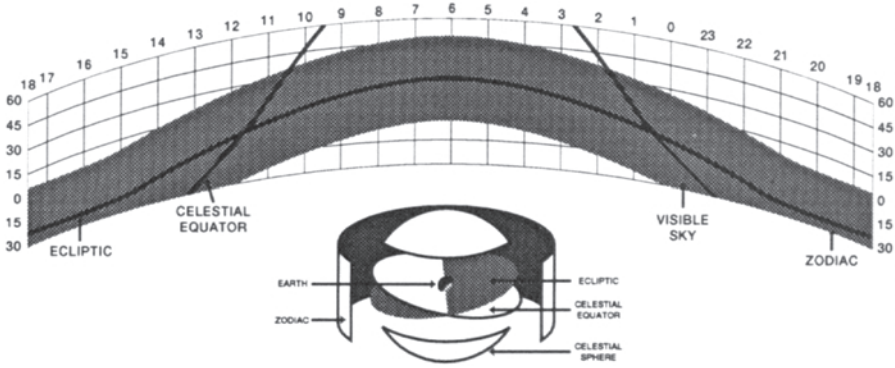

Figure 3 Ecliptic and equator against the visible sky.

in the same zodiac sign for a year, and Saturn stays two-and-a-half years in one sign. The planets Uranus, Neptune and Pluto were not known to antiquity. From the fifth century at least the planets' motions were understood to be basically circular. However, as they were seen to stop this overall motion (described as being 'in their stations') or even go backwards (retrograde), attempts were made to refine the model to explain this.

The apparent path of the Sun, the ecliptic, lies at an angle of 23 l/2 degrees to the celestial equator, the projection of the Earth's equator on to the celestial sphere (Figures 2, 4). This is the reason for the varying seasons and hours of daylight. At the spring equinox, when the Sun is at the First point of Aries, it is directly overhead at the equator, and night and day are of equal length everywhere. In the days which follow, its angle to the equator, measured in degrees of declination, increases to a maximum of 23 l/2 degrees at the summer solstice, midsummer in the northern hemisphere. It then appears to stand still before returning to the equator, which it reaches at the autumn equinox. As the angle increases again, in the northern hemisphere, the Sun's maximum altitude at noon gets lower until the winter solstice (Figure 5).

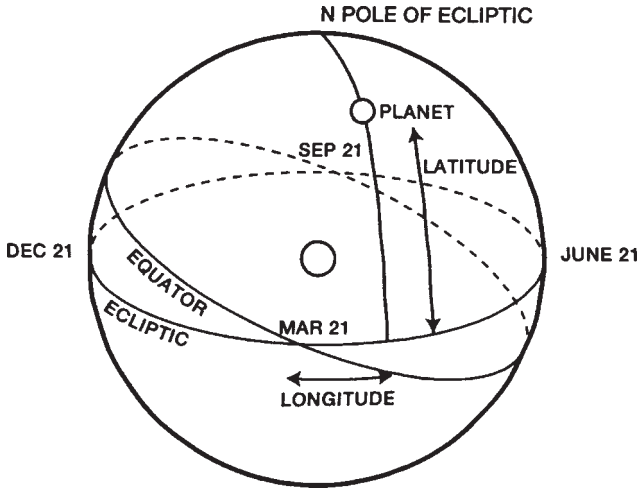

Figure 4 Latitude and longitude.

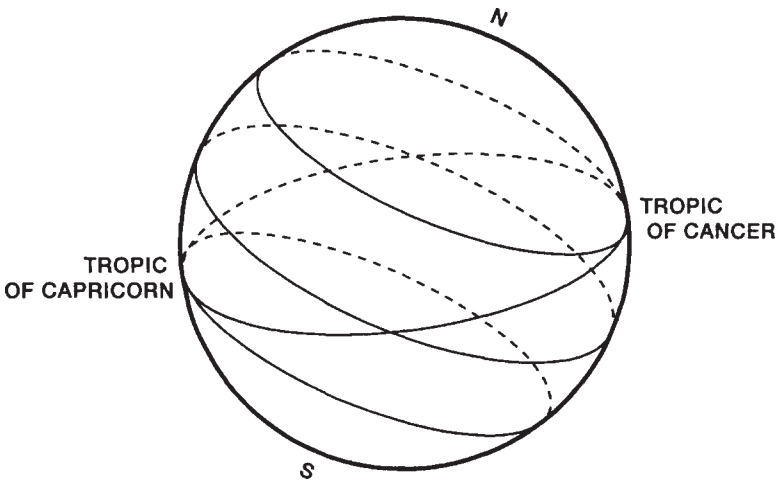

Figure 5 The solstices.

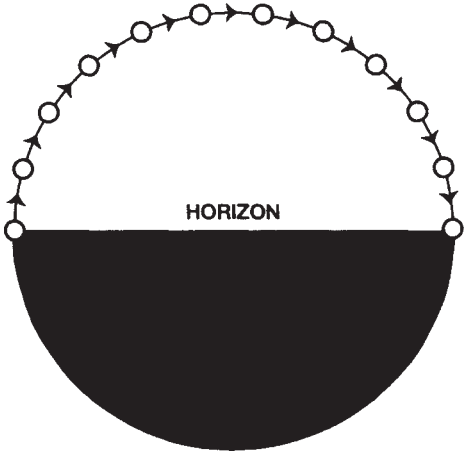

Figure 6 The direction of the Sun's diurnal movement.

Each day the Sun is seen to rise in the East at dawn, and to move upwards until it is directly overhead at noon, and then downwards until it sets in the West (Figure 6). It can be deduced that it continues to describe this circle during the night on the other side of the Earth. The planets too are moving in an East-West direction, and so is the whole sphere in which the stars are fixed. During the night, a new zodiac sign can be seen to rise in the East about once every two hours. However, the starry sphere moves round slightly faster than the Sun, achieving a full revolution in about 23 hours and 56 minutes. This is why given constellations will not always be visible in the night-time, but for part of the year are only above the horizon in day-time. To go back to our initial observation of the night-sky over a year, it is the stars' greater speed which means that the Sun gradually falls behind the point in the zodiac from which it started. So the Sun can be seen to move very slowly in the opposite direction, completing a revolution in a year. This is what gives us Sun-signs in our horoscopes.

But before considering the birth chart and its relation to the heavens, we need to consider the relevance of space as well as time. Clearly, perception of the stars will vary at different points on the Earth's surface. The Sun takes four minutes to pass over an arc of 1 degree. Thus the Sun rises twenty minutes earlier in Amsterdam than in Greenwich, which is 5 degrees east of the Greenwich meridian. Similarly, which sign is rising and setting depends on where you are on Earth. And since all rising occurs parallel to the celestial equator, and as the ecliptic lies obliquely to the equator, some signs can be seen to rise more quickly than others. In northern latitudes the signs from Capricorn to Gemini take less time to rise. In the polar regions, some signs never rise at all. The ancient astrologers were aware of the variation in rising times, and offered tables, which were calculated for different *climata,* or zones based on the ratios of daylight to night on the longest day in the year. The rising time of a given sign is the number of degrees of the equator which cross the horizon of a given locality at the same time as the sign. Accurate tables of rising times, calculated by spherical trigonometry, are found in Ptolemy's astronomical work, the *Almagest*.[1] Astrologers, especially those earlier than Ptolemy or contemporary with him, used rising times calculated arithmetically according to Babylonian schemes, which were less accurate.

Now, of course, it is not the Earth which lies at the centre, but the Sun. It is the Earth's rotation on its axis joining the poles which produces the effects of day and night rather than the Sun's

movement, and it is because the Earth does not 'stand up straight' in its orbit, but is tilted in relation to the plane of the ecliptic, that we have the varying seasons (Figure 7). The ecliptic, the apparent path of the Sun, is actually the plane of the solar system. The planets' motions are approximately in this plane; they are also not circular but elliptical, and, apart from the Moon, orbit round the Sun rather than around the Earth. This is why they appear to stop and go backwards from Earth. As for the Sun itself, it is because the Earth makes a circuit of the Sun once a year that the Sun seems, from a point of view on Earth, to complete a journey round the ecliptic in the same period, appearing against a background of the zodiac. This does not matter, as astrology is concerned with movements relative to the Earth.

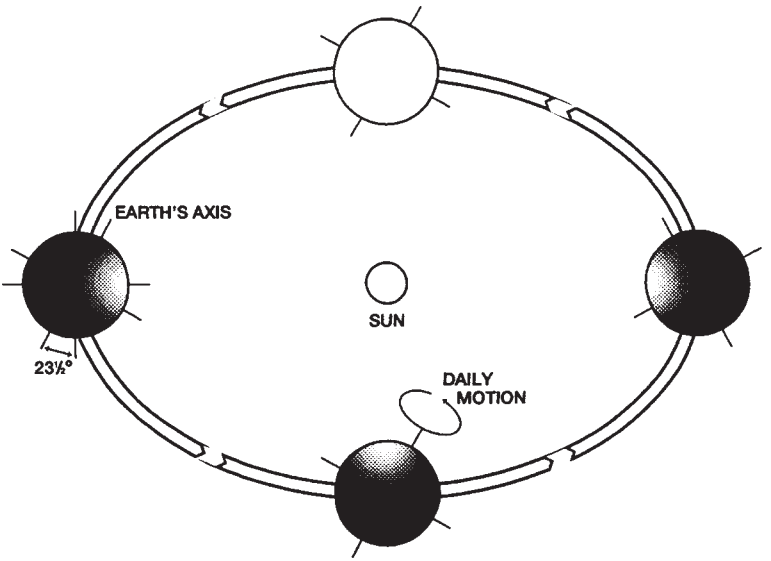

Figure 7 The orbit of the Earth.

In addition, the 'fixed stars' within and outside the zodiac only appear fixed because of their great distance from the Earth. A moment in the Sun's journey is schematically represented in Figure 8, where the inner circle represents the months. Here, in the third month, the Sun is seen against the sign of Pisces.

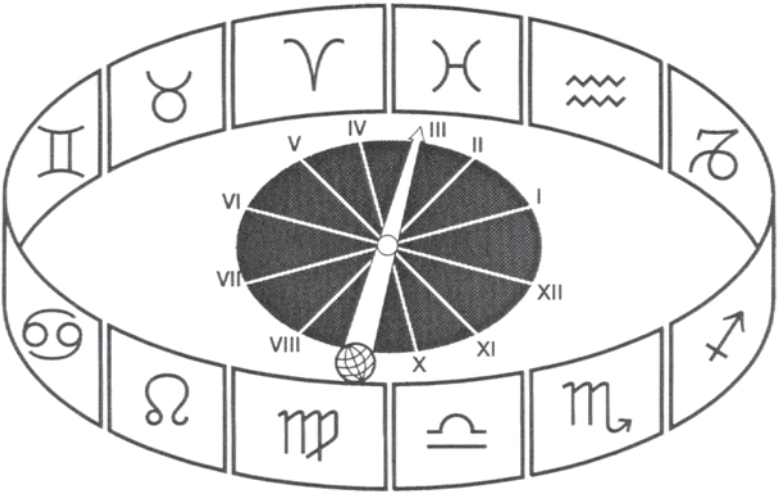

Figure 8 The Sun seen against the zodiac.

Now in fact the relationship of each area of the sky designated as a zodiac sign to the constellation after which it was named is even more arbitrary than in the original division of the zodiac. This is because of a wobble in the earth's axis as it spins, like a spinning top which is running down. Thus the North Pole describes a circle, taking about 26,000 years to reach the point where it started. The First point of Aries, or the point of the vernal equinox, from which the zodiac begins, has slowly moved backwards well into Pisces. This phenomenon, known as precession, was probably discovered by Hipparchus in the second century BCE. Ancient astrologers, naturally, did not have to consider the problems posed for their model by modern findings about the universe. However, precession was an issue: it was used as an argument against astrology by Origen, presumably drawing on an earlier source. Ptolemy recommended a correction of 1 degree a century for precession; this seems to have been used by some successors.[2]

BASIC PRINCIPLES OF ANCIENT ASTROLOGY

The chart, whether it concerns a birth or any other event, is simply a map of the heavens, frozen at a particular moment. There are a variety of ways of presenting the information: one is visible in Figure 10,

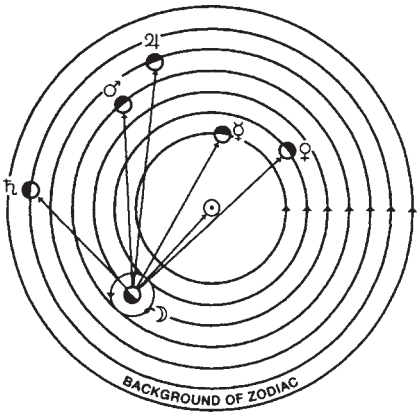

Figure 9 Positions of the planets in their orbits relative to Earth.

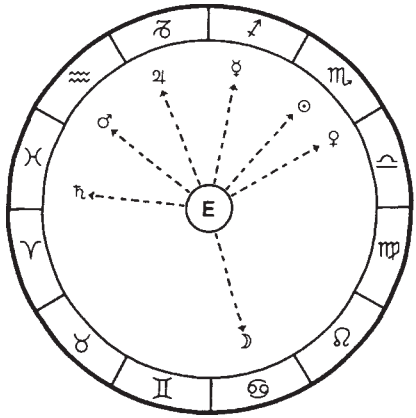

Figure 10 The same positions represented in the birth chart.

which represents the situation in Figure 9. A crude round birth chart, which does not include the Places, known as (mundane) houses to modern astrologers, is found in a papyrus (Figure 11), but astrological manuscripts (which are not earlier than the Byzantine period) are illustrated with square types of chart (Figure 12; Figure 1).

The defining point of the chart is the Ascendant, known to the Greeks as the *Horoscopes,* which was to give its name to the whole birth chart. This was the degree of the zodiac rising over the horizon at the moment concerned. Conventionally, the Ascendant is placed

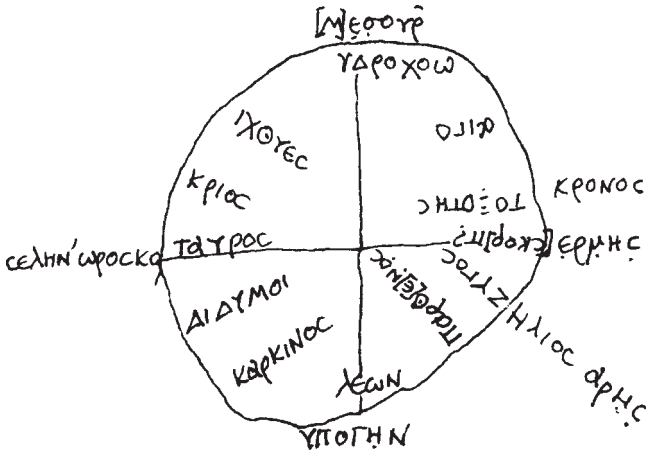

Figure 11 Diagram from first-century CE papyrus.

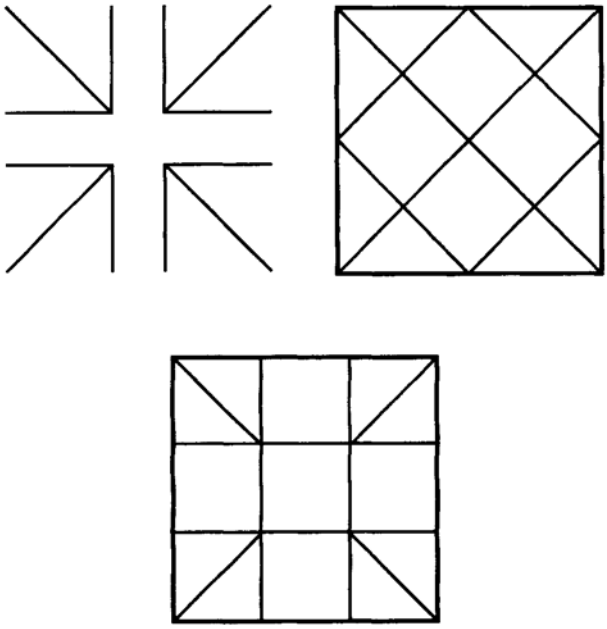

Figure 12 Types of diagrams in manuscripts.

in the middle, on the left of the chart, at 9 o'clock on round charts, representing the point in the East rising at the moment concerned. In fact, it would only be due East when the equinoctial points were rising, or during the rest of the year at the equator, because of the different rising times. Similarly, the other cardinal points, Midheaven (*Mesuranēma* to the Greeks, *Medium Caelum* to the Romans), the point directly above the observer's head, the Descendant (*Dusis, Occasus)* in the West and the *Imum Caelum (Hypogeion),* known as angles to the modern astrologer, would not, at other times, be 90 degrees apart, as they are illustrated (Figure 13). However, ancient astrologers' attention to this problem was erratic, to say the least. In the earlier horoscopes preserved, it seems most common to assume that the Midheaven was simply three signs from the Ascendant. Where degrees are mentioned, it is usually taken that the cardines are 90 degrees apart. Clearly, astrologers' calculations depended on the tables they used: some later literary horoscopes benefit from the more

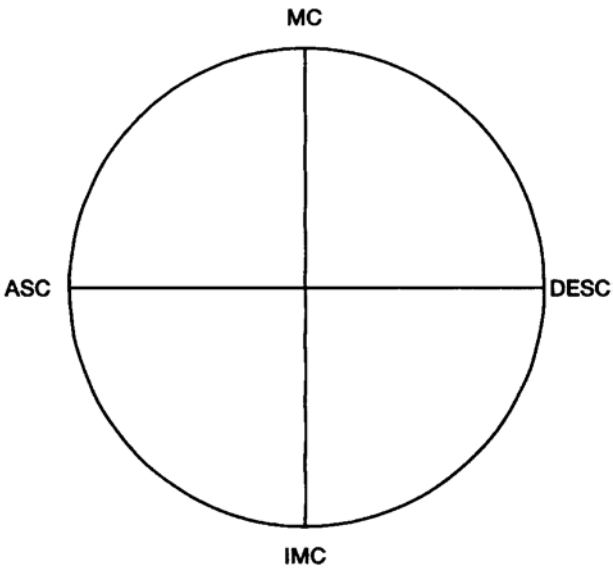

Figure 13 The Carolines (as at the equator).

accurate trigonometric tables of Ptolemy and his successor Theon, but some ignore the rising times when it is a question of calculating the cardinal points.

The planets, a term which includes the Sun and Moon, are thought of as having influences according to their characteristics. Jupiter, the Moon, and Venus are thought of as basically positive in their influence, and are called benefics, while Saturn and Mars are basically negative, or malefics. The Sun and Mercury are mixed. Furthermore, particular associations, based on the mythological attributes of the gods after whom they are named, are obvious in interpretations of their effects (see below). The planets' influence is altered by a number of factors. One is the nature of the zodiac signs in which they are found. Firstly, each planet rules two signs, or in the case of the luminaries, one sign, which are known as their houses to the ancients, and in these signs their influence was increased and generally made more positive (Figure 14). Secondly, each planet was thought to be in its exaltation (thus particularly beneficent) in one sign, or in particular degrees of the zodiac and in its depression (thus particularly

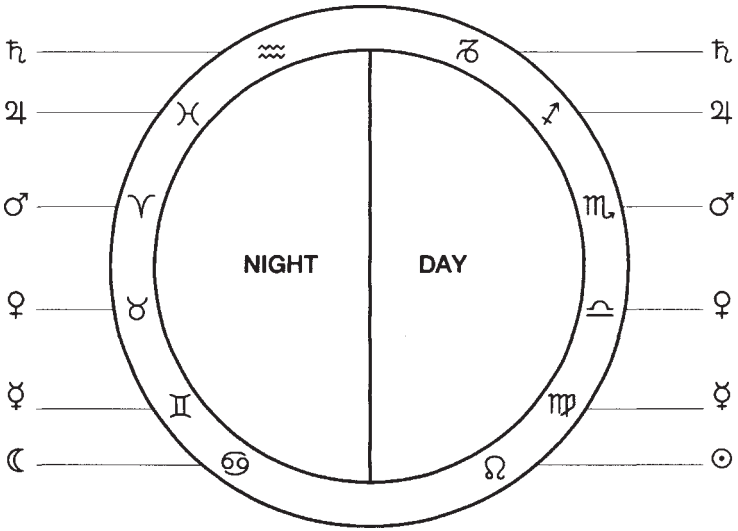

Figure 14 Zodiacal houses of the planets.

maleficent) in another (diametrically opposite) sign. The characteristics of different signs combine with the characteristics of different planets to produce more specific effects.

Modified versions of the houses of the planets are the terms, the decans and the dodecatemories. These are smaller parts of the zodiac wheel than the signs, allotted to the planets on varying principles. The terms were originally based on rising times,[3] and the decans, as we saw above (p. 20), were derived from Egyptian methods of measuring time by the stars. There were normally five terms distributed unequally within each zodiac sign (as visible in the outer circle of Figure 22), and three decans distributed equally (Figure 15). *Dodecatemorion* means a twelfth part, but the interpretations of its precise meaning in the horoscope varied. Often, a sign would be divided by twelve into 2 l/2 degree sections, each assigned to a planet, according to a variety of rules: one example of this method is in Dorotheus of Sidon. But Manilius allots half-degrees to the planets, and Firmicus single degrees, calculated on the basis of the individual planets' positions in the nativity concerned.[4] There were also dodecatemories of the cardinal points, and of other astrological entities.

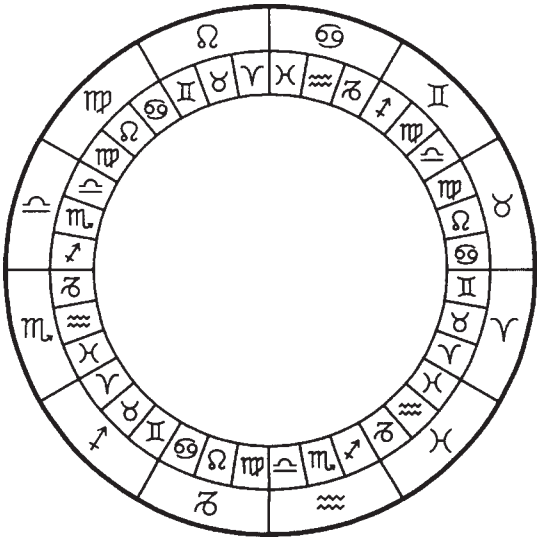

Figure 15 The decans.

The planets' influence was also increased if they were found on or near the cardines. The Ascendant, apart from determining the cardines, was the point from which the Places, normally twelve, were usually calculated. They might be taken to begin from the first degree, or from 5 degrees before the Ascendant, as Ptolemy suggested, or the Ascendant might be set in the middle of the first house, a theory attributed to 'the Egyptians'. In at least one case one or more Places are calculated from the Lot of Fortune (see below).[5] These Places, so called to distinguish them from the zodiacal houses of the planets, are known as (mundane) houses to modern astrologers. They are visualised as a fixed wheel through which the zodiac signs rotate. Each governs several related aspects of life (see Figure 16). The second Place, for instance, can be said to be concerned with livelihood, property, partnerships, business, profit from inheritance and relations with women. (The native, in the ancient world, was normally regarded as male, though female natives were sometimes specifically considered in the treatises.)

Different provinces of life are also governed by the Lots or Parts, a series of degrees calculated by transferring an arc of distance

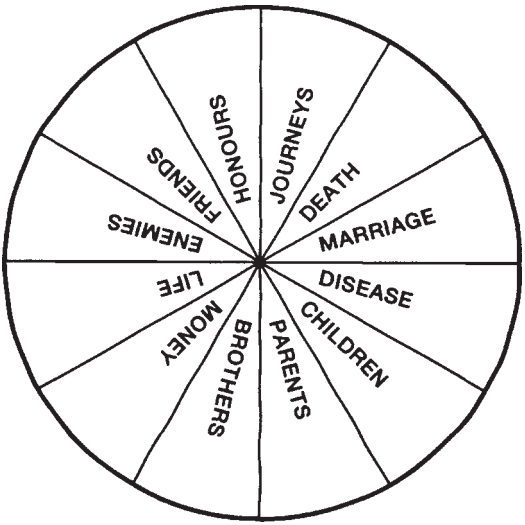

Figure 16 The Places.

between two entities in the chart to another entity, and siting the Lot at the end of the arc. The most important is the Lot of Fortune, seen as being almost as important as another planet. There are Lots of Necessity, Courage, Love, Brothers, Parents and so on. Some of the Lots cast according to one set of rules are visible in Figure 22, drawn as circles.

The planets also interact in particular mutual relationships. Two planets are said to throw shadows on to each other *(antiscia)* when they lie at opposite ends of one of a set of parallel lines linking all the signs (Figure 17). A set of angular distances between planets, known as their aspects, also modify their influence. Conjunction, where the planets seem to occupy the same space in the sky, means that the influence of each planet is strongly affected by the general character and particular characteristics of the other. The approach of one planet towards another, and their moving apart, or defluxion, was also important. Opposition, where they are 180 degrees apart, thus directly opposite one another in the chart, makes planets have a baleful influence on one another (Figure 18). A modified version of this is

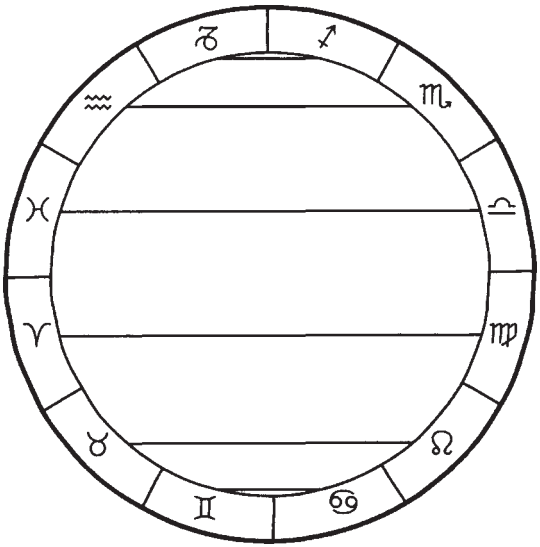

Figure 17 The *antiscia*.

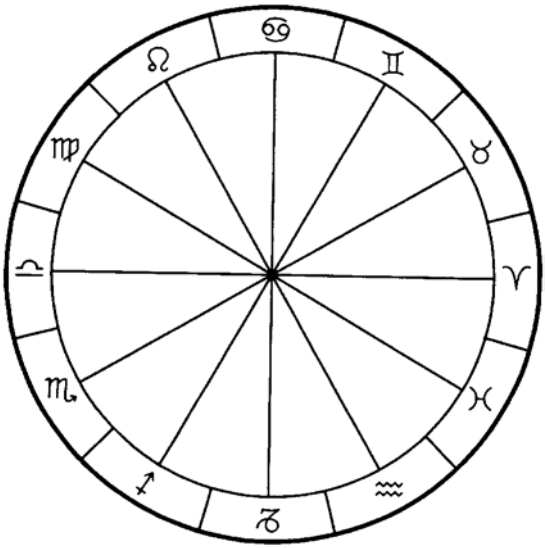

Figure 18 Opposition.

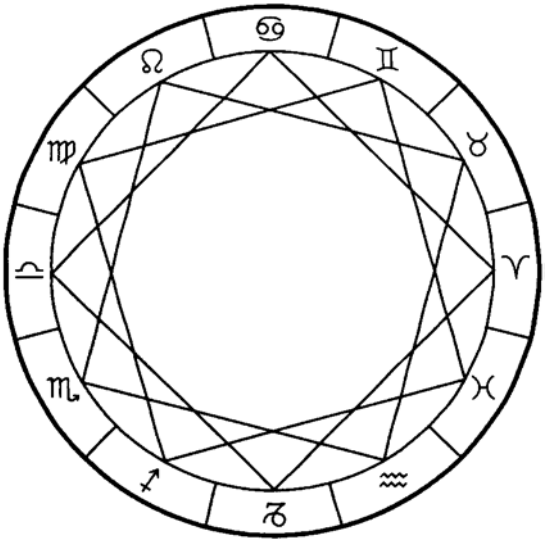

Figure 19 Square.

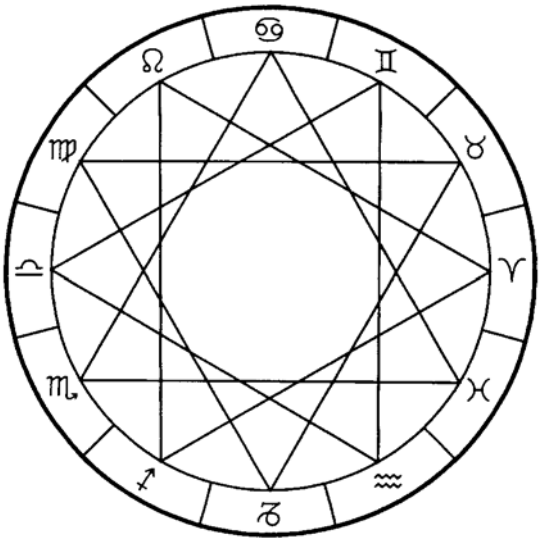

Figure 20 Trine.

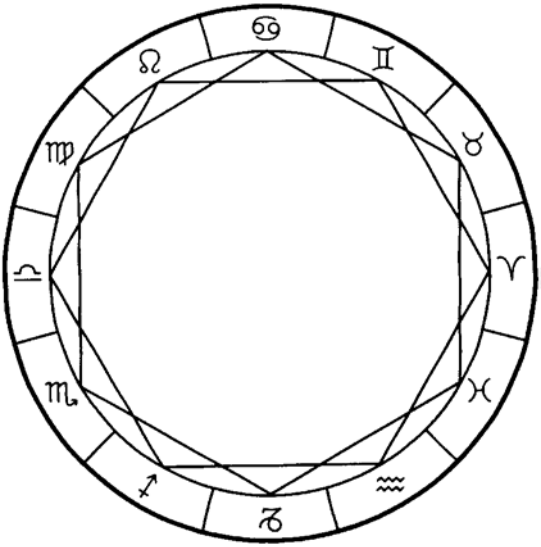

Figure 21 Sextile.

the square (or quartile) aspect, where planets are 90 degrees apart (Figure 19). Trine, 120 degrees (Figure 20), and its modified version sextile (60 degrees: Figure 21), are both beneficent aspects, making the planetary influence positive.

Furthermore, the zodiac signs were categorised in a number of different ways, as feminine or masculine, diurnal or nocturnal, human or animal, fertile or sterile, whole or mutilated, single or double, tropical or cardinal, and by other non-binary distinctions, such as classification by position (standing, sitting down, walking or running and so on). They were divided into groups, into groups of three (triplicities) ruled by particular planets, and into pairs of signs which 'see' and 'hear' each other (a version of the *antiscia),* and of signs which command and signs which obey.

NOTIONS OF ASTRAL INFLUENCE: THE NATURAL-PHILOSOPHICAL BACKGROUND

The above account is a crude synthesis, designed simply to elucidate terminology used in the rest of the book. We shall see that there are a number of features which complicate matters. However, first we need to attempt to explore these ideas of stellar influence, looking at the ideas of natural philosophers as well as those of astrologers.

Astrology was always explained as being on the model of the Sun, whose effects on the Earth and life on it were too obvious to need much justification, and of the Moon, whose influence on the tides was also evident from at least the time of Seleucus in the second century BCE. The Moon was also thought to be the source of dew, and thence of a variety of effects on living beings. The Stoic Balbus, in Cicero's dialogue *On the Nature of the Gods,* asserts: 'from her [the Moon] come moisture, the dew useful for nourishment of living beings, for their growth, their reaching maturity, the dew which allows plants to ripen.' Pliny refers to a relationship between the waxing and waning of the Moon and living creatures:

> It is she who saturates the soils, who fills the body with her approach and empties them by her moving away. Thus when she waxes, crustaceans get bigger, and the beings most sensitive to her breath are those which are bloodless; but blood too, even human blood, increases and decreases with her light, and leaves and grass are sensitive to her effects, for her influence reaches everywhere equally.[6]

Both Pliny and the second-century CE medical writer Soranus record the notion that the lobes of the liver in house mice increase with the waxing Moon, but decrease with the waning Moon; Pliny also mentions that ants stop their work during the New Moon, and that the incidence of eye-diseases among cattle fluctuates with the Moon's phases.[7] Writers on agronomy were careful to say in which lunar phase rural activities should take place.

The Moon was also supposed to affect generative capacities in humans. Some medical writers and natural philosophers believed that the periodicities of the Moon had an effect on the female body in particular, controlling menstruation. Aristotle and the contemporary medical writer Diocles thought that menstruation tended to occur at the end of the lunar month. Pharmacological writings show that plants connected with the Moon were used to bring on menstruation. Some Hippocratic writers, followed by Aristotle, thought that it was the Moon which ensured that conception took place most often in the middle of the lunar month, others that a Full Moon aided birth. The Moon's waning was connected with pain and cold weather. The origins of the term 'lunatic' are seen in the ancient association of the Moon with recurrent fevers, epilepsy and certain forms of madness occurring periodically.[8] There were a variety of theories about the physical processes involved. Plutarch, who wrote his *On the Face in the Moon* in the second century CE, records the view that the Moon sends down heat to Earth and sends upwards exhalations from Earth, refining and purifying them within itself.[9] Ptolemy, however, draws on the notion of 'sympathy' in his explanation of the role of the Moon:

> The Moon, too, as the heavenly body nearest the earth, bestows her effluence most abundantly on mundane things, for most of them, animate, or inanimate, are sympathetic to her and change in company with her; the rivers increase and diminish their streams with her light, the seas turn their own tides with her rising and setting, and plants and animals in whole or in some part wax and wane with her.[10]

The idea of 'sympathy' (literally: experiencing together), together with its corollary 'antipathy' was implicit in a wide variety of ancient writers, particularly in the field of medicine. It is related to the idea of correspondences, which designated animals, plants and stones as sympathetic or antipathetic to particular conditions, which might or might not be seen to be caused by the heavenly bodies. We shall be

returning to this in Chapter 7. This common understanding was expanded into a more general theory by the Stoic philosophers, who perceived a universal sympathy in which everything had connections with everything else. Sympathy was a notion which played the role of a causative action in the unrolling of Fate in the Stoic universe.

The Stoics followed Plato and Aristotle in seeing the four elements of fire, earth, air and water as fundamental qualifications of all matter, though for them fire (as in innate heat, as opposed to the destructive fire) is the only permanent element. These elements denote the properties of hot, cold, dry and wet. A species of the hot was the *aithēr* or ether, the celestial fire. The term originally referred to clear air as opposed to *aēr,* or mist. In Plato's cosmology there are two concentric layers of air outside those of earth and water, with *aēr* closer to earth and ether outside it, and fire forming the outermost circle. Aristotle saw the ether as a fifth element, the element from which the heavens are constituted, quite separate from the elements found beneath the Moon, which formed the boundary of the heavenly region. Ptolemy works within an Aristotelian model to explain astral influence:

> A very few considerations would make it apparent to all that a certain power *(dynamis)* emanating from the eternal ethereal substance is dispersed through and permeates the whole region about the earth, which throughout is subject to change, since, of the primary sublunar elements, fire and air are encompassed and changed by motions in the ether, and in turn change all else, earth and water and the plants and animals therein.[11]

In this vision, the heavenly ether acts on the intermediate elements of fire and air, which then alter the other elements.

It is impossible to say who first connected the workings of astrology with the Aristotelian universe, for it may have been much earlier than Ptolemy. In the middle of a passage usually seen as taken from 'Nechepso and Petosiris' which is preserved in Hephaestion of Thebes, is a description of the manner in which the effective force of the planets is transmitted through the spheres to the sublunar sphere.[12] In this depiction, the planetary system is based on epicycles and eccentrics, which certainly comes from Hellenistic astronomy. The rest of the passage concerns predictions from the heliacal rising of Sirius, which is similar to Babylonian texts and has parallels in Demotic, which suggests an early origin. If the passage on influence were to be dated like the rest to the second century BCE, we would have here the earliest discussion of celestial influence, anticipating

Ptolemy in explaining it in Aristotelian terms. The astronomy might even point to Hipparchus, but as usual in the history of astrology, we are left only with conjectures.

Alexander of Aphrodisias, a Peripatetic (of the school of Aristotle) who flourished in the mid-third century CE, discusses the question of astral influence in a number of texts. He had perhaps been influenced by Ptolemy's text.[13] He seems to argue that the heavenly bodies created both simple and complex organisms in form as well as essence:

> Uncompounded bodies have the cause of their changing into one another outside them, for cooling and heating which occur on account of the varying state of the heavenly bodies in relation to them are the cause of their coming to be, destruction and change into one another.[14]

In another text he addresses the question of planetary influence more specifically. The planets, as they moved round the zodiac, made the particles nearest to them hot or dry, since they were fiery, while they produced the other elements: air (hot and wet) and water (cold and wet) and earth (cold and dry), from a greater distance. As the positions change, there is a process of continual change in the material affected. More perfect, active, rarified bodies are generated from fire and more imperfect, passive, dense bodies from the other elements.[15]

In one passage which bears a close resemblance to the discussion of Alexander and ultimately to Aristotle's account in *On Generation and Corruption*,[16] Ptolemy sees the elements as all being provided by the Sun, in different amounts according to its position relative to the Earth:

> For the Sun, together with the surrounding environment, is always in some way affecting everything on earth, not only by the changes that accompany the seasons of the year to bring about the generation of animals, the productiveness of plants, the flowing of waters, and the changes of bodies, but also by its daily revolutions furnishing heat, moisture, dryness and cold in regular order and in correspondence with its positions relative to the zenith.[17]

The effects of all the heavenly bodies are explained by Ptolemy in terms of the four qualities. Elsewhere[18] the Sun's active power appears as heating and drying, while the Moon's is humidifying. Mars is drying and burning, in conformity with his fiery colour and because

of his nearness to the Sun. Jupiter has a temperate heating force because he moves between the cooling Saturn and the burning Mars; he also humidifies and produces fertilising winds. Venus warms moderately because of her nearness to the Sun, but mainly humidifies because of the amount of her own light and because she appropriates the exhalations from the moist atmosphere surrounding the Earth. Saturn is cooling and drying (because he is removed from the Sun's heat and the moist exhalations from the Earth).

Here, in mentioning the moist exhalations from the Earth, Ptolemy draws on ideas which may have originally been put forward by the Presocratic philosophers, Heraclitus and Anaximenes. But again, it is probably Aristotle who is the direct influence. In Aristotle's cosmology, the basic constituents of the sublunar atmosphere are the hot, dry, smoky exhalations from earth and the cold, wet vaporous exhalations from water. The upper atmosphere consists of the hot exhalation, and the lower is a mixture of the two.[19]

These ideas about exhalations were often bound up with an understanding of the universe derived from the human body. The third-century BCE Stoic Cleanthes suggested that the heavenly bodies were sustained by exhalation from the oceans and other liquids of the world's body in the same way as the human soul (seen as corporeal) was sustained by exhalation from the blood. This was the explanation for the solstices: the Sun turned round when it reached the edge of the ocean, because there was no more nourishment to sustain it. The heavenly bodies, like the human body, took in liquid and poured out heat. Similarly, in the depiction of one speaker in Plutarch's dialogue *On the Face in the Moon,* while the stars revolve like radiant eyes in the face of the universe, the Sun, playing the role of the heart, transmits and disperses out of himself heat and light as if it were blood and breath. The Earth and sea act like bowels and bladder, and the Moon, situated between the Sun and the Earth, fulfils the function of an organ like the liver or perhaps the spleen, and directs the heat from the Sun to Earth, and the exhalations from the Earth to the Sun, after refining and purifying them.[20]

In a variety of ancient philosophies, the correspondence between the universe (the macrocosm) and human individuals (the microcosm) was an important axiom. Thus Cleanthes expanded the medical view that innate heat is the principle of life in humans, arguing that it was the principle of the universe itself. By analogy, as humans have intelligence as their commanding faculty (the chief part of the soul), so the universe too has pre-eminent intelligence as its commanding

faculty.[21] The notion of the connection between the microcosm and the macrocosm is also associated with the Pythagoreans. The Christian Epiphanius, in his account of pagan heresies, attributes to Pythagoras the view that God, or the sky, is a body, and that his eyes and other features are the Sun, Moon and other elements of the sky.[22] Theon of Smyrna, a second-century CE Platonist, mentions that some Pythagoreans saw the Sun as the commanding faculty and centre of the planets, like the heart of the universe.[23] The Neoplatonist Porphyry, in his *Introduction to the 'Tetrabiblos'*, also gives the Sun the heart as its special province, but also the Moon the spleen and Jupiter the liver. The relationship of analogy between human beings and the universe is an old idea: the slogan 'Man is a small universe' *(microcosmos)* is attributed to the Presocratic philosopher Democritus. But there was endless scope for the basic idea to be developed in different ways. As we have seen, such ideas were particularly important in Hermetic philosophy.

NOTIONS OF INFLUENCE: PTOLEMY'S EXPLANATIONS

Ptolemy uses a wide range of explanations in which principles of analogy are always important, but the tendency to anthropomorphise the heavenly bodies is reduced. He invokes the four elements to explain the beneficent and maleficent roles of the planets. The hot and the moist qualities are beneficent, being fertile and active, because all things are brought together by them, while the dry and the cold are destructive and passive, forces of separation and destruction.[24] Furthermore, according to the mixtures of elements in them, the planets can be classified as masculine and feminine. Moisture is a feminine quality, so Venus and the Moon are feminine, while the Sun, Jupiter, and Mars are masculine. Mercury, being dry and moist, is hermaphroditic. In addition, the planets' gender is altered by their aspect to the Sun and the quadrant they are in.[25] The account here does not quite fit with the explanation two chapters on. As we saw in Ptolemy's description of the Sun above, all four elements are produced in turn. The Moon, in the period from waxing to its first quarter, produces more moisture; in its passage from first quarter to full, more heat; from full to last quarter, more dryness; and from last quarter to occultation (New Moon), more cold. The planets, in oriental aspects only, produce more moisture from (heliacal) rising to their first station, and so on in the same order, to evening rising, to second station, to setting.

The logic also seems to break down in the account of the reasons for making some planets diurnal and some nocturnal: while the Moon, Venus, the Sun, Jupiter and Mercury are assigned on the basis of their genders, masculine to day and feminine to night, the malefics Mars and Saturn are assigned to day and night respectively on the grounds that their predominant element needs to be tempered by its opposite.[26]

Aspects were also difficult to explain on the elemental model or on a common-sense physical one. Earlier astrologers referred to the action of the planets in these angular relationships as *actinobolia* (the emission of rays) but never explained why the rays were activated in particular positions. As mentioned above, Geminus was sceptical about the idea that influence was increased at certain angular distances. He demanded why signs should not have more influence if they were next to each other rather than, say, 120 degrees apart. Ptolemy explains by invoking music as an analogy, following Pythagorean ideas about the role of certain ratios:

> The explanation of opposition is immediately obvious, because it causes the two signs to meet on one straight line. But if we take the two fractions and the two superparticulars [3/2 and 4/3] most important in music, and if the fractions one-half and one-third be applied to opposition, composed of two right angles, the half makes the quartile and the third the sextile and trine. [1/2 of 180=90 (quartile) and 1/3 of 180=60 (sextile).] Of the superparticulars, if the sesquialter and the sesquitertian be applied to the quartile interval of one right angle, which lies between them, the sesquialter makes the ratio of the quartile to the sextile and the sesquitertian that of trine to quartile. [3/2= 90/60 and 4/3=120/90.][27]

He also applies another kind of analogy in his explanation of why some aspects are beneficent and others maleficent. In his explication of the zodiac signs, he makes signs alternately female and male. He begins by making Aries male, because the male leads and is active and superior. He says that the aspects trine and sextile are harmonious, because those are the angular relationships between signs of the same gender, while quartile and opposition are disharmonious because they link signs of opposite genders.[28]

Ptolemy has explanations for almost every element of astrology. The houses of the planets are accounted for by their natures and positions. So Leo and Cancer belong to the Sun and Moon respectively because they are the most northerly of the signs, and thus closer to the

zenith, and productive of heat, and Leo is masculine like the Sun and Cancer feminine like the Moon. The exaltations and depressions find similarly varied justifications. But the very variety reveals the strain involved in such rationalisations. When we hear that Venus is exalted in Pisces because she is moist, and it is in Pisces that the moist season of spring is *pre*-signified, the sense of strain is obvious even without the knowledge that Aries is the sign normally associated with spring.[29]

NOTIONS OF INFLUENCE: THE DIVINE STARS AND THE SOUL

Ptolemy's naturalistic explanations are often clearly rationalisations of theories which had their origin in myths about the stars. He attempts to remove all elements of the personification which had formed part of the common understanding of the heavens. He is rare among astrologers in his efforts to find rationalistic explanations, and to suppress features he finds too fanciful. It is a distinction obvious to us, but it is difficult, and often artificial, to separate religious understanding from 'scientific' in antiquity. This is particularly clear in theories about the soul, which veered between a spiritual and a physiological entity. The soul was, from at least Plato onwards, associated with the stars. In the *Timaeus* souls are made by the Demiurge (the craftsman-creator) in numbers equal to the stars.[30] Inside its star, the soul is taught that it is subject to the passions, but that if it masters them, it can return to its native star. The stars, among other 'young gods', are assigned a subordinate role in creation: while the Demiurge made the rational part of the human soul, they formed human bodies and the lower, mortal parts of the soul, will and passion.[31] Some of the Neoplatonists, followers of Plato in late antiquity who tended to lay emphasis on the mystical side of his work, offer a kind of religious physics. Macrobius, for instance, in his commentary on Cicero's *Dream ofScipio,* attributed the rotation of the universe to the World-soul, which is intimately related to the individual human soul. Soul, drawing deep on Mind, gave divine minds to all the heavenly bodies with spherical shapes in the process of creating them. Now, the soul's essence is motion; and it thus imparts it to the body of the celestial sphere:

> the body of the celestial sphere, which the World soul fashioned to participate in its immortality, in order that it should never cease functioning, is always in motion and does not know how

> to rest, since soul itself, by which the sphere is impelled is never at rest…the celestial sphere is compelled to turn with a rotary motion because it must always be in motion and there is no place beyond to which it can proceed, its motion is perpetually within itself…the only progress of a sphere embracing all spaces and regions is within revolutions. As a result it always seems to be pursuing soul, which moves around its vast immensity…The sphere would rest if it should ever find soul resting, but since the latter, leading the chase, is ever pouring itself into the universe, body is ever commingling with it.[32]

Other Neoplatonists developed a more obviously mythical account of the soul's relation to heaven, while Aristotle and the Stoics took a more physiological line. Aristotle asserted that there is material of the soul in the *pneuma* (breath, or spirit) within human sperm which is like the material of the stars.[33] The Stoics too saw a connection between the material of which the soul was made, ether or *pneuma,* and the stars.[34] It was Pythagoreans and Platonists who laid emphasis on the astral origin of the human soul. Epicureans, however, saw no connection between the soul, which in their view was simply dispersed after death, and the stars.

Doubtless, for the vast majority, the heavens always remained peopled by entities less abstract than Ptolemy's elements and qualities. The Elder Pliny, in the first century, thought it was a belief increasingly common to learned and unlearned alike that each individual had his or her own star, which rose with him or her at birth, and fell with him or her at death, varying in brightness according to his or her estate in life.[35] From as early as the first century BCE, some Roman writers were acquainted with the idea of the astral soul. Cicero's famous *Dream of Scipio* has the great second-century general Scipio dream that he feels his soul leave his body for the stars.[36] In this account the Milky Way is made the province of heroes after death. His contemporary Varro mentions three doors to the starry heaven: one near Scorpio, one between Leo and Cancer, and the third between Aquarius and Pisces.[37] Beginning with Porphyry (232–305 CE), who wrote an introduction to Ptolemy's *Tetrabiblos,* it was standard doctrine that the soul's astral body came from planetary spheres and returned to them at death. Neoplatonists developed an account of the soul's ascent after death, some suggesting that the stars purified the soul as it went up, others that the stars assisted its progress.[38] Others said that the stars contributed something of their own to the

human soul. Plutarch said that the Moon contributed the individual soul, the Sun the mind.[39] Servius, the fourth-century commentator on Virgil, records that, according to the *physici,* (the natural philosophers, or 'Scientists'), people receive *pneuma* from the Sun, body from the Moon, the blood from Mars, inventiveness from Mercury, desire for honours from Jupiter, passions from Venus, and tears from Saturn. Here the mythical characteristics of the gods, probably thanks to the doctrines of astrology, are influential. He also preserves a list of vices contributed by each planet to the descending soul: laziness from Saturn, anger from Mars, lust from Venus, love of money from Mercury, desire to rule from Jupiter.[40] A Hermetic fragment offers slightly different lists of positive and negative planetary contributions to the soul. In one account, it is simply stated that all seven planets are within every person, since the planets each bestow something, while in another it is said that the soul gives back negative attributes with each sphere through which it passes on its ascent, until it passes the seventh and escapes the rule of Fate administered by the planets.

Such doctrines had certainly spread beyond the philosophers. Though there may be distortion in the Platonist accounts of Mithraism, that most popular religion of the Later Empire, the ascent of the soul through seven planetary spheres seems to have played a central part, as we see in Chapter 7. It reappears in Gnostic and Christian texts, where the stars were generally seen as either moved by intermediate powers, angels or daemons, or their visible form.

THE STARS AS GODS

For most schools of thinkers, the stars' divine nature was selfevident. Indeed, their motion was difficult to explain if it was otherwise. The Epicureans, who denied that the heavenly bodies were divine, were forced to explain their movements by gusts of wind. In this case, their depiction of a universe of atoms in random motion was hard to substantiate, and the regularity of the planets' motions was frequently cited by those who wanted to argue for a divinely ordered cosmos.

The stars were in ancient Mesopotamia regarded simply as gods. Hellenistic astronomers were more cautious, either designating the stars with names reflecting their appearance, such as 'the scintillating one' (Mercury) or 'the shining one' (Jupiter), or referring to them as the stars of particular Greek gods. Thus Saturn was 'the star of Kronos', Jupiter 'the star of Zeus' and so on. It was with the dramatic

rise of astrology from the end of the Roman Republic that the planets became known simply by the names of the gods.

By this stage they carried with them the connotations of a complex amalgam of myths from different civilisations as well as the independent developments which had come from astrology. This is evident if we look at the planets individually. The Sun, in Babylon Shamash, had taken second place to Sin, the Moon. In Greece the Sun, Helios, was quite a minor deity, and the Olympian god Apollo had taken over control of the Sun as one of several provinces. But astrologers like Vettius Valens drew on Egyptian mythology, associating the luminaries with Isis and Osiris.[41] In Babylonian cosmology, the Moon came from Anu, Enlil and Ea, who gave him all powers in the course of his phases. He presided over destiny and royalty together with his daughter Ishtar (Venus). In Greek mythology Artemis was the goddess associated with the Moon, as well as with childbirth; the Roman Diana took over the same roles.

Saturn in Babylon was a priestly figure. For the Greeks he was Cronos, the god from a more brutal era, before the civilised rule of the Olympians in heaven. He was thus seen as old, and his name inevitably associated him for Greeks with Chronos, or time. It was perhaps the cruelty of the figure who castrated his father and swallowed his children which made him a maleficent planet; he was also seen as the Father, as he had been the father of the gods.

Jupiter was Zeus, king of the Olympians, the most dynamic planet. He was also the source of fecundity, perhaps reflecting the number of children he was described as fathering in myth. He took over from the Assyrio-Babylonian Marduk, the patron of Babylon, his role as king. Mars, or Ares, also followed the Babylonian designation as Nergal, the god of war, based on his reddish colour. He was seen as impetuous, passionate and prone to anger and violence. He is also particularly associated with violent death.

Venus, or Ishtar, daughter of the Moon-god in Sumerian mythology, united with the Sky-god, was the mother of the universe. In Greek mythology she was Aphrodite, goddess of voluptuous love. But from the Egyptian Isis she gained the reputation for purity and grace as well. Mercury was Hermes, the wily messenger of the gods, who presided over intelligence and communication. The planet was cast in this role in astrology too: it was thought to make people good at mathematics, *natural* philosophy and using words. It was perhaps the speed of the planet's movements which led it to be identified with the messenger.

The interactions of the planets can also be explained in part by their mythological personae. Thus Venus, in a bad aspect with Mercury, the swift-moving and therefore unstable messenger, would provoke jealousy. Together with Mars, with whom she had a notorious adulterous liaison, she frequently incited adultery.

The planets were certainly described as if they were like humans, as were the gods in ancient polytheistic systems. They are seen to show hostility or favour to other astrological entities or to humans, they get up (rise), walk, see and hear, and are gendered. The luminaries are 'attended' by other planets surrounding them or are 'enthroned'.

SUMMARY

In this chapter we have seen what the basic doctrines of ancient astrology were, and have set them in the context of the geocentric universe, explaining exactly how a horoscope is related to the stars. But it is important to understand not only the fundamental ancient ideas about the movements of the planets in relationship to the rest of the universe, but also ideas about the way they and the other stars could be imagined to affect life on Earth. Obviously ancient understanding of these effects was built on the model of the visible effects of the Sun and Moon, which was thought to be closely related to the generation of life. Another notion which was generalised was the idea of an analogical relationship between macrocosm and microcosm. However, there were a number of competing models which could explain astral influence. The Stoics were the ones who put most emphasis on the idea of sympathetic links between the different parts of the universe. The Pythagoreans saw musical harmony as the crucial model. However most enduring proved the Peripatetic model, in which the elements of hot, cold, wet and dry combined to produce their varying effects, thanks to Ptolemy. But regardless of Ptolemy's rationalisation of astrology, for most people the stars retained supernatural powers. After all, the philosophers mostly agreed that the stars were divine creatures. And philosophers and other religious sects developed a variety of visions of the relationships between the human soul and the stars, perhaps building on the common belief that each had his or her own star. Astrological theory, meanwhile, tended to work on implicit rules in which the composite mythology surrounding the stars determined their effects on Earth.

5

ASTROLOGICAL PRACTICE: CASTING A HOROSCOPE

INTRODUCTION: THE ASTROLOGERS

Astrology is a technically complex discipline, and the exposition in the foregoing chapter may have seemed baffling to the uninitiated. As one way of showing how it actually worked, I am going to take an individual birth chart and illustrate how two ancient astrologers would have interpreted it, according to the generalised instructions given in their works. They are quite different sources, in that they are separated by several centuries, and that one was written in Greek and the other in Latin. However, they are remarkably similar, illustrating the tenacity of astrological tradition. The reason that they are ideal for such an experiment is that they present themselves as simple handbooks, and offer precise predictions corresponding to particular configurations.

The first astrological work I use is the *Mathesis,* the Greek word meaning learning, which had come to connote astrological knowledge in particular. It was written by Firmicus Maternus, a Roman senator from Sicily who had been a lawyer, between 334 and 357 CE. He is thus a member of the Roman elite, and the work was dedicated to a patron high up in the imperial civil service, who is known to us from other evidence. The second work is the *Pentateuch,* or 'work in five books' by Dorotheus of Sidon, dated on the basis of the horoscopes to the mid-first century CE. This was in fact one of Firmicus' sources. Though Dorotheus' importance had long been known, only fragments of his original text were available until 1976. In that year David Pingree published the Arabic translation, which was based on a third-century Pahlavi translation of the Greek. This has had some obvious interpolations, two horoscopes from the third and fourth centuries CE, a couple of additions from Vettius Valens and another from

Indian astrology.[1] Such imperfect texts are unfortunately the norm in this field.

The birth chart I have chosen to illustrate astrological practice is that of Prince Charles. This native has the advantage that the exact time of birth was recorded. Furthermore, the prince, like his ancient counterparts, was the subject of great interest to contemporary astrologers. But the real interest could have been provided by using any individual horoscope, ancient or modern, because it is only by having a particular horoscope that one can see how the theory in the textbooks could have been translated into practice. In this way, one can pick out from the mass of confusing material only those predictions related to the various configurations which characterise a particular nativity. The first thing which strikes us is that the interpretations which follow differ interestingly from those of modern astrologers. The immediate impression is that there is much less interest in character, and a much greater willingness to offer precise predictions. But as we shall see, there is much more to be revealed about the nature of ancient astrological theory.

The diagram of the birth chart (Figure 22) has been drawn to illustrate with as much clarity as possible the system according to Firmicus, which is clearest. The cardinal points, rather than being calculated, are simply set 90 degrees apart, and the Places are thus simply twelve 30-degree sections starting from the Ascendant, with their Latin names according to Firmicus.[2] The outermost circle illustrates the terms of each planet according to Firmicus. The aspects between planets are drawn with dotted lines. The Lots are represented by circles with the names of their provinces, such as Wife, Brothers and so on. The positions of the planets were calculated on the basis of modern ephemerides.

FIRMICUS MATERNUS

Here I go through the treatise in order, picking out any parts which relate to the particular circumstances of Charles's nativity. Charles was born at 9.14 p.m. on 14 November 1948. There are a number of general factors to take into consideration. As this is a nocturnal chart, Venus, Mars, Mercury and the Moon are made more favourable, and the Sun, Jupiter and Saturn less so. There is a Mars-Jupiter conjunction, the Moon and Mercury are in opposition, Saturn, the Moon and Jupiter are in trine, Venus and Mars are in sextile, as are Saturn and Mercury. Because of the

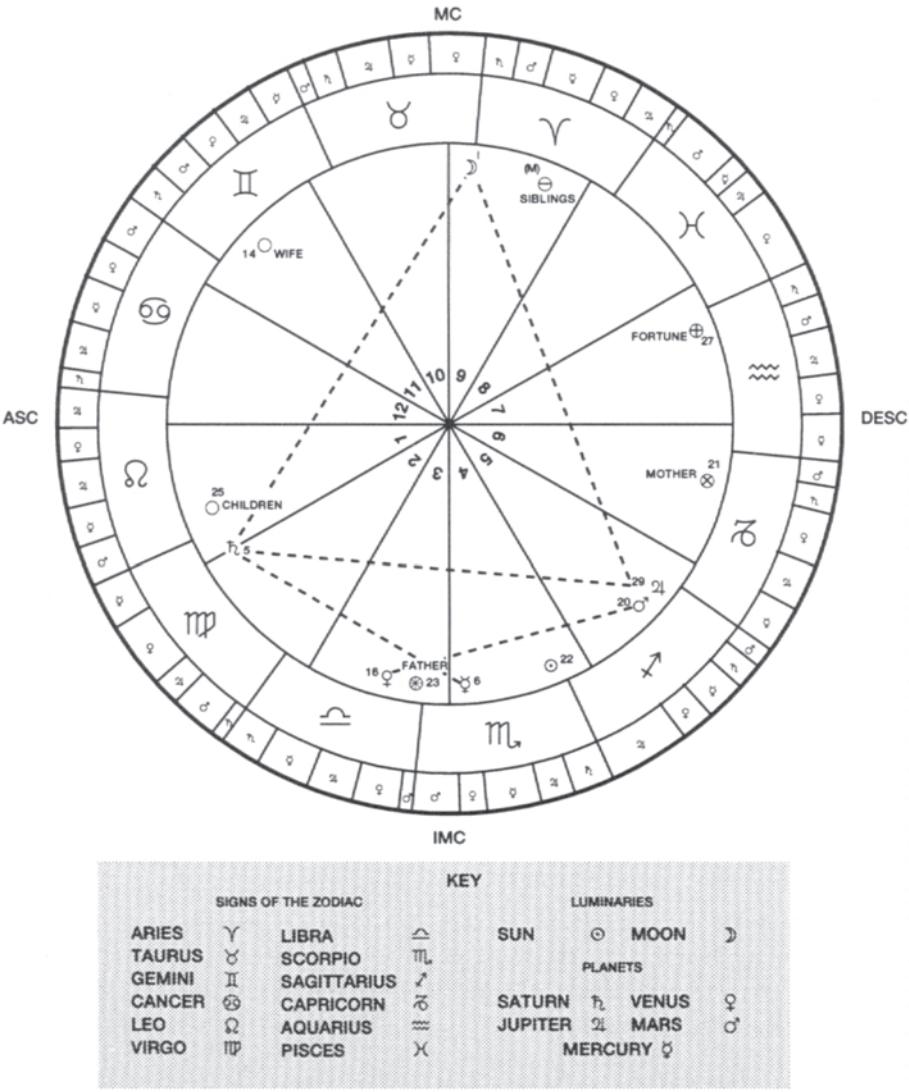

Figure 22 Horoscope of Prince Charles.

antiscia (shadows thrown opposite) cast between Mars in Sagittarius and Capricorn in the dejected Place of Disease, Venus in Libra and Pisces in the Place of Death, the Sun and Mercury in Scorpio and Aquarius in the Place of Marriage (in opposition to the Ascendant), there are bad influences on these planets. On the other hand, the *antiscia* of the Moon in Taurus and Leo in the Place of Life, of Jupiter in Sagittarius and Capricorn in the Place of Children, and of Saturn in Virgo and Aries in the Place of Journeys, ensure that the Moon's and Jupiter's favourable influence is increased and Saturn's malign influence tempered. The dodecatemories of the Sun and Venus are in the terms of Saturn, and thus under his malign influence, those of the Moon, Jupiter and Mars in the terms of Mercury, of Mercury in the terms of Venus, thus under her benign influence.

With this in mind, we are able to compute the length of life at a little less than a healthy eighty-four years, with Venus, the ruler of the Moon's sign, in her house and favourably aspected. Firmicus' methods here are very crude.[3]

In Book 3 the first detailed predictions are generated by the position of the planets relative to the Places. Here I keep as close to the original words as possible.[4] The fact that Saturn is on the cusp of the second Place indicates serious illnesses and great reversals of fortune. Firmicus tells us that Charles is to become the murderer of his wife and children, and a frequent agitator of great public disturbances, and he wastes his paternal and maternal substance. He is slow in all his activities and suffers from constant bodily afflictions.[5] However, before passing on this shocking information to the national press, you will need to know that there is better news for the prince as well. Jupiter in the fifth Place implies a great increase in prosperity, particularly as he is in his own house (Sagittarius). Jupiter is also in conjunction with Mars and in his terms, so the native will be outstanding in regal power, and all his pronouncements will be accepted as if from holy writ. He will have a strong body and healthy bones. But this is not the whole story. Since Jupiter is in aspect to the waning Moon, and it is a nocturnal chart, he will merely make men of decent character, raised to the honour of a moderate position.[6]

The other planets' relationships to the Places and signs add further predictions. Mars in the fifth Place by night, in the house of Saturn, indicates good fortune in possessions. Honours will be decreed by the people, and friendship offered by great men.[7] Venus in a middling Place, but in her house and in favourable aspect to Mars, suggests

fame, power and riches.[8] Mercury in the fourth Place makes the native sharp of mind, in charge of public activities, erudite in many kinds of learning, but being with the Sun in this Place, also makes him low-class and skilled in secret and illegal arts, though sober and honest.[9] The Moon in the ninth Place forces some to cultivate rites of the most important religions, while others carry on business for women.[10]

In Book 4 Firmicus continues consideration of the Moon. Here the luminary offers dismal predictions for the Queen and the Duke of Edinburgh. Being in an important Place, but waning and in aspect to Saturn, makes the parents low-class, slaves, or immersed in poverty or misfortune. Some will have mothers who are sickly or who meet a violent death in the early years. Or the native himself will be sickly, short-lived and will meet an evil death.[11] Being on the wane, in aspect to Jupiter, the Moon decrees that the native will be adopted, or left to die and later returned to the parents. Such men seek income by their own efforts, and over a period of time achieve advancement, power and fame.[12] The waning Moon moving away from Saturn in aspect to Jupiter makes caretakers to whom private affairs are entrusted, who travel for business; or they become sea-captains, shop-owners or tax-collectors, or one of those who exercise their professions around water. In this way they earn a modest living.[13]

As for the opposition of Mercury to the Moon, Firmicus observes: 'This indicates infinite vices and unheard-of evils. Therefore we should pray the man should not be thus.' Yet the aspect to Jupiter suggests an abundance of good things.

Firmicus mentions four methods of determining the ruler of the chart.[14] The preferred one allots this role to Mars, who makes men:

> fierce, unconquerable, active, quarrelsome, bold, involved in dangers, violent but liable to be deceived in various ways. They are gluttonous and digest food easily; brave, just, fiery. They have red hair and bloodshot eyes, commanding ways, always seeking positions of power. Their occupations have to do with iron and fire. They are monstrously bad-tempered, never get on with wives, children or friends, and are envious of others' possessions.

Afflictions such as cuts and bruises are frequent; they often fall from high places and break their arms and legs. (A warning against polo, perhaps?) They will meet a sudden and violent death. However, the bad influence of Mars will be somewhat blunted by the favourable

aspect of Venus.[15] Being in the house of Saturn and in the fifth Place, as the Moon wanes, with Jupiter in trine to one of the cardinal points, Mars makes powerful, awe-inspiring generals and tribunes ruling great regions and many states, entrusted with control of the whole world.

Mercury is the planet which determines occupations, being in opposition to one of the cardinal points. In a solid sign, he makes important judges or record-keepers. However, this is not a strong prediction because he is neither in his house nor in his terms.[16]

In typical style Firmicus introduces a new determinant with a dramatic expression of religious awe: 'I am now about to explain fearful secrets which the revered ancients left wrapped in obscurity so that they should not come to the ears of the profane.' He concludes:

> That most true and immutable theory the ancients left wrapped in obscurity so that it should not come to the notice of everyone. The great Petosiris touched on it only lightly; not that he was not familiar with it (for he had arrived at all forbidden secrets), but he did not want to divulge it lest his work should lose its divine character.

Completely contradicting his earlier exposition of the decans, he tells us of the Egyptian version, which he claims is the really significant one. Though there are three decans to every sign, their power does not extend to all 30 degrees of each sign. In each sign decans possess certain degrees and not others. Those they possess are called 'full', those where they have no power, 'empty'. This amounts to the observation that with three planets in 'full degrees', Saturn in Chenene, Mercury in Sentacer and Venus in Sepisent—Charles will have good fortune above the ordinary. Also, because the Ascendant is in a full degree (Craumonis), he will be very strong in vitality, courage, animal spirits, type of body, and power of authority. The Midheaven, the Lot of Fortune, and the planet determining occupations are also in full degrees, which bodes well. However, the ruler of the chart lies in empty degrees, which diminishes his power.[17]

The treatise goes on to explain masculine and feminine degrees. These determine whether the chart is masculine or feminine. The means by which they do this, and the significance of the conclusion, is not explained.[18]

The fifth book begins with a consideration of signs in which the angles are located. The Ascendant in Leo indicates many toils and dangers, but great fame. The native will be free-born, have unlimited

power, and never use it for evil. He will secure his possessions by his own efforts.[19]

But the Midheaven in Taurus indicates life in a public place or a temple. It also holds the clue to Charles's fortunes in marriage, indicating:

> marriage with a widow, or a woman seduced by, or subject to another, or in a servile condition, or an old woman, or an object of public shame.

However, Charles will be greatly honoured by a powerful man, will be knowledgeable in all things and have a great increase in good fortune.[20]

If Firmicus had actually calculated the Midheaven, he would have found it at 13 degrees Aries. His prediction for those with the Midheaven in Aries is that they will be involved with powerful men; their daily living is afforded from foreign investments. They will always be seeking possessions and luxuries. But their resources will be constantly in a state of flux, so that as often as they lose, they will gain the whole back again.[21]

The Descendant in Aquarius prescribes a life of ups and downs, and in some cases popularity and approval. The IC *(Imum Caelum)* in Scorpio merely shows that the native will be in charge of certain projects.[22] 'Some readers', observes Firmicus, 'may think that these are just general remarks, but there is substance in them.'[23]

Next, he goes on to consider briefly the influence of the terms. The Ascendant's being in Jupiter's terms indicates virtue and wisdom.[24] He leaves the subject to deal with the meanings of the planets in different signs. The presence of Saturn in Virgo means illnesses and problems in early life, and more serious evils when it transits to Capricorn or Taurus, or double signs. (Saturn stays in a sign about every two-and-a-half years. In four years and eight months he would have reached the double sign of Cancer, and in seven years and four months he would have reached Taurus.) Then it brings riots, losses, anxieties, griefs, sudden dangers and destruction. But when it is passing through other signs it indicates good deeds and occupations, fame and increase in income; at least the native will be freed from difficulties, toil and danger and get rest. That period of time will be considered joyful and glorious. When Charles is twenty-nine years and four months old, Saturn will come into Virgo again, bringing ill luck. He will have to make his own way in life rather than relying on his parents. Sometimes he will be in a low position

and sometimes in a high one. He will be constantly moved around from one place and from one business to another. Whatever he gains at first will be lost; but when lost it will be regained; but he will lose it again and never be able to attain the income he seeks.[25]

The position of Saturn offers further insight into Charles's marital arrangements:

> There will be trouble with women in early life. Wives allotted to them in early life will not stay with them; the legal wives they take later will not agree with them and they will not have a happy life with them. They will not have virgins for wives, but women seduced by others, or who have already had children. If they do marry virgins, they quickly separate from them. They do not remain with one woman, but finally marry in the lower classes, and these wives they cherish with faithful affection.[26]

Saturn adds more on other areas of life: Charles will be learned and wise, engaged in many activities and seeking many things. But whenever he attains anything he seeks he wastes the substance of his possessions. He will sustain many losses on behalf of others, but will be deceitful in these situations. He will be involved in popular pursuits, known to all, and familiar to all. Because Saturn is in the first Place, he will lose children and waste their inheritance. Some are allotted relatives for wives.[27]

Jupiter in Sagittarius will make the natives famous and powerful, rich and learned. They will have possessions abroad, be of good character and trained in every courtesy. However, they lose everything when Saturn crosses the first Place, a time when there will be disturbances, griefs, revolutions, and unfortunate outcomes to projects. This is the case for Charles's first year, and then every twelve years for a year. Thus, from 14 November of 1960, of 1972, of 1984, of 1996 and so on, an a*nnus horribilis w*ould follow. But when Jupiter reaches his own house (Sagittarius or Pisces) with a favourable aspect, prosperity and good fortune will come little by little. On the first occasion, after five years and twelve days, a sextile with Mercury and a trine with Saturn may set Charles on the right track, though they can hardly be said to be the most favourable aspects. Thanks to the position of Jupiter, in the first part of his life Charles can be expected to be irresponsible and to quarrel with his wife. But once he reaches middle age, his luck changes.[28]

Firmicus has a severe warning regarding people like Charles who have Mercury in a decan of Mars, and Mars in a term of Mercury:

> Never make a companion of those who have Mercury in the terms or decans of Mars, or trust them to confide in. They will deny and will persist in their outrageousness with wicked defence of their perjury. They will be prepared for every crime of infamy, especially if with Mercury thus located, Mars is found in the terms of Mercury…In that case the natives will suffer from prison or exile or, fearing court sentence, will wander as fugitives far from their household gods.[29]

As a culminating pessimistic forecast for the prince from the fifth book, Firmicus notes that the waning Moon in the terms of Mercury makes people 'malicious, wicked, consumptive, mentally disturbed or insane. 'They willingly associate themselves with every kind of wickedness, defend evil men and evil deeds, and their depravity increases from day to day; they are even hostile to men of their own kind.'[30]

Book 6 reveals one set of bright stars. Quite a different set are revealed in Book 8. But ancient astrologers could congratulate themselves on having the option of revealing that the Ascendant in the 5th degree of Leo is in the bright star Regulus, the star of kings.[31] This indicates the highest royal or imperial power. They would doubtless have ignored the prediction in Book 8 that the man with his Ascendant in this degree would become the master or oiler of athletes![32]

The treatise moves on to consider the planetary aspects. With Saturn in trine to Jupiter, and Mercury in sextile, Charles should be involved in obscure religious rites or will carry on the business of kings. Often he will lead a famous diplomatic mission. But these men are worn out by excessive misfortune concerning their children; they lose sons and are forced to raise the children of others.[33] The indications from Mercury's opposition to the Moon reinforce an earlier prediction relating to progressions from planetary positions in the terms. British republicans can take comfort then: this aspect stirs up attacks of the multitude and popular revolution. The timid natives are always persecuted in public meetings by the malevolent voices of the people.[34]

Taking the sextile aspects as having half the impact of similar trines, according to Firmicus' instructions,[35] enables us to observe that the native will be quite intelligent and talented, with some interest in learning, quite serious in character in early life. He will tend to argue for his point of view. He could be in charge of public accounts

or the privy purse, and make a reasonable amount of money from this. So much for Saturn and Mercury.[36] As for Mars and Venus, since the locations are favourable, they indicate some daily profit as a result of constant effort, and a fairly prosperous marriage. Charles will have a moderately good reputation, be quite proud of his high position and have several marriages.[37]

The conjunction of Jupiter and Mars repeats the ascription of great power.[38] Charles will govern a great state, or at least an important region. He will achieve his desires, reach the highest office and control the greatest armies. But the injury the Sun inflicts on Mercury implies that Charles will never shine in anything he does, and will only carry out duties subordinate to powerful men. Though clever in council, he will always hide what he is thinking. He will be anxious, worried over all life's duties, and filled with superstitious awe in all religious rites, suspicious of others, and hesitating even in small decisions.

At this point Firmicus explains how to compute the Lots, which are marked on the chart by small circles. The distance between different planets is added to or subtracted from the Ascendant. The aspects, positions, relationships to the signs and so on are then considered. Calculating the Lot of Parents yields the information that, while the Duke of Edinburgh may be allowed personal charm and grace, the Queen will be low-class, hardworking, ill-kempt and mournful, always sluggish and hesitating, a slave or at least given to servile habits and appearance.

After long consideration of the Lots of Brothers, Wives and Children I can only reveal that his children will be by one wife only and that many will die. Charles could be expected to have one sister, thanks to the Moon, but Mars and Saturn might kill her off. We can anticipate that he will have some problems in the head, from the ages of fifteen and thirty, but that they will be moderated by Venus. In general, the predictions are vague and cancel each other out. I will leave out consideration of the Lots of sexual desires, necessity, honours, military affairs, travel, reputation, physical courage, possessions, accusations, enemies, friends, glory and slaves.[39]

From the Time-Lords we can tell something of Charles's immediate future. A new cycle of Time-Lords began on Charles's fortyfourth birthday, 14 November 1992. Until 14 June 1994, the Sun rules, bringing ill luck, especially as it is in aspect to Saturn and Mars in a nocturnal chart. The bad news is that the Sun is followed by Saturn for the next thirty months. During this time he threatens pestilence

and death. From 14 December 1996 for a year Jupiter takes over and brings better luck for a year, bestowing 'peaceful good fortune together with the happiest kind of life so that all traces of evil are washed away'. Losses are made good, health is restored, and difficulties end. Then Mars disturbs this serenity until 14 March 1999, bringing the greatest dangers and constant calamities; he 'indicates loss of income and extreme poverty; stirs up frequent law suits and quarrels; and also brings about pains in the eyes and serious dangers'. Then, until Charles's birthday in that year, Venus 'brings prosperity in all affairs; but she excites the character of wives with a certain malevolent dissension, so that a concealing mind in the wife both betrays and then covers itself. Because of this lawsuits are stirred up, and small riots.' Until 14 July 2001 Mercury 'indicates frequent business activities and continual profit, but the profit comes only after labour and danger'. The final part of the Sun's rule as Time-Lord is allotted to the Moon, until 14 August 2003. 'At this time the whole life of the native is disturbed in a variety of ways; whatever he has collected up to this time he loses again; his life will be changeable so that he will be relieved of money by sudden riches, but will lose them again and poverty will follow.'[40]

The last two books, concerned with specific sorts of charts such as those of infants who are left to die, twins and slaves, and with the fixed stars north and south of the zodiac, or *paranatellonta,* offer fewer specific predictions. We do learn a little more about the family. According to two different methods, either his father will die first or his mother. (The Sun is worse located than the Moon, implying that the father will die first, but if you count the number of signs from the Moon to the Sun, you end up in a feminine sign, suggesting that the mother will survive.)[41] He will have five moderately prosperous siblings.[42] His wife will be well-born but known for adultery.[43] In fact, following a method for which Firmicus will not vouch, he will have four or eight wives, beginning at the age of ten, or twenty-two, or thirty-four. (This is worked out by counting the signs from Venus to the Place or the Lot of Marriage for the number and using the total of all the degrees of all the planets as an arc of distance from the Lot of Marriage, and checking when Jupiter reaches the sign.) Before then, if marriage took place it would be dissolved.[44]

Firmicus often points out that the whole body of the data must be considered. For instance, at the end of the sixth book, after discussion of the Time-Lords, he says: 'I do not wish individual sentences to be

quoted out of context. For often if a benefic planet receives the allotted time but has a malefic planet with him, or in square aspect, or in opposition, the favourable quality of his predictions is lessened.'[45] Thus, after the amassing of the relevant predictions, work remains to be done.

DOROTHEUS OF SIDON

In using Dorotheus' text, I have combined predictions under headings with a bit more creative input, in order to present a more processed horoscope. There are some key differences in his approach. He values the Places differently, in a more hierarchical way which also produces more optimistic predictions. However, in the case of this chart, the arrangement puts Venus in an evil location, which alters the interpretation. He seems to use the first, fourth, seventh and tenth Places as cardines rather than calculating more precisely. He also gives pre-eminence to a particular set of factors, the triplicities of signs and their rulers. For instance, Aries, Leo and Sagittarius are a triplicity, and its lords by day are the Sun, then Jupiter, then Saturn, and by night Jupiter, then the Sun and then Saturn. Dorotheus also calculates some of the Lots in a different way from Firmicus.

Length of life

In the third book Dorotheus offers several different methods of finding the 'governor and indicator of the time of the years of life'. Much is left unexplained, but it is apparent that instead of narrowing down the options he is actually ensuring that there is no preferred planet. A generous interpretation would allow one to conclude from one passage that the governor of life's years was the Moon, though it is not clear that it fulfils all the many requirements.[46] Even if it were possible to be sure, it is impossible to work through Dorotheus' own method of calculations without tables of rising times such as he would have used. Basically, the procedure is to take the chosen degree and see what the situation is each time the degree moves into aspect with the malefic planets, Saturn and Mars.

Dorotheus' procedure for calculating the length of life is not unusual in being so complicated. Ptolemy's methods in the *Tetrabiblos* have proved the despair of many a commentator.[47] There is spherical trigonometry involved in the computations, but this would not be

too difficult, provided the astrologer had access to tables such as those in the *Almagest*. But then, five different methods are offered for choosing the *aphetēs,* literally the place of sending out, the place from which to begin.

One can perhaps find a reason for making it difficult to understand methods of calculating the length of life. This was an illegal pursuit, after all, carrying heavy penalties. But it was also the part of the astrological art most must have burned to master. Few could have gained any insight into the forbidden knowledge from reading the astrological treatises which have come down to us.

Dorotheus is no more enlightening about the manner of death. He offers at least five different methods. The ruler of death could be Jupiter or Mars, or Saturn, the Moon, Jupiter again, or Mars. In the first case, if it is Mars, as the lord of the triplicity of Pisces, this means that thieves will fall on Charles and kill him, or his enemies will kill him in a fight, or he will burn in a fire, or an animal from among the earthly animals will bite him or lions will devour him. Because Mars is not in his Place the death will take place in a foreign land. In the last case, even if it is Mars, it could be Saturn which would determine death in this nativity, as lord of the seventh Place, in which case, because it is seen in the East, it suggests that Charles will die publicly. Concentrating on the seventh sign, Charles will die by water, since it is in Aquarius. If we accept that the Moon is moving away from a degree which aspects the Sun (it is now 22 degrees away), then this is reinforced: he will die (in fire or) in water, and many people will die with him.[48]

Upbringing

He will not be left in the open to die since Jupiter is in a cardine and the Moon in the ninth Place by night. While he is a baby he will have quite an attractive face and limbs, and his teething will take place without too much pain.[49]

Afflictions

Saturn is the lord of the sixth house, and will produce afflictions of a dry, cold nature. According to the method of using the Lot of Diseases, Mars will rule, and as the Lot is in Aries, chronic illness will strike in the head. It will be in the left side of the head, because no planets are found between the tenth Place and the Place of Life. By another

method it will be Venus which rules, and because it is northern, the illness will strike in old age.[50]

Character

Dorotheus gives Charles a chequered character. Because Saturn is following a cardine, he will be reflective and anxious, ugly, malicious and haughty, though Jupiter's conjunction with Mars improves matters.[51] The Mercury-Moon opposition makes him timid about public speaking.[52] With Mercury in the terms and house of Mars he will be an insignificant fool, a shameless liar, neither believing in religion nor good works, and fond of adultery. He may act treacherously and consort with magicians. He will receive hostility from the people on the grounds that he is an untrustworthy reprobate.[53] Mercury under the Earth in aspect to Saturn makes him a vicious liar.[54] But the fact that Mars is in the terms of Mercury (in the system we have in Firmicus) means that he will be reasonable, keen to marry, clear-thinking and intelligent.[55] He will be reserved and fond of a quiet life, bookish, with an indistinct manner of speaking, with Saturn in the house of Mercury.[56]

But thanks to his handsome face and eyes, he is pleasing and agreeable to all, as the Moon is in the house and terms of Venus.[57] The Jupiter-Mars conjunction in Jupiter's house makes him powerful, steadfast and celebrated in arms.[58] And the Saturn-Mercury sextile indicates that he will be quite calm, purposeful and reasonable, and moderately accomplished in literature and numeracy.[59] The Venus-Mars combination usually implies dubious sexual activity, and the fact that it is a sextile means that he will be quite wealthy, not bad at riding, and successful in his endeavours, 'except that he will' love intercourse with women and riding forbidden mounts(!).[60]

Social status, occupation

To begin with the bad news: with Jupiter and the Sun as the lords of the triplicities of the degree of the conjunction, Charles is destined to be a slave, since Jupiter is conjunct with Mars and in aspect to Saturn. The Moon does lessen the evils of his position,[61] and like his father, he will have only one owner. (A different method gives no owners.)[62] All the indications of the Moon on the third day and its dodecatemorion are for the humblest social estate.[63] Furthermore, the lord of the triplicity of the Sun's sign (Jupiter) is more than 45

degrees after the preceding cardine, so that Charles will be needy and miserable.[64] According to the rulers of the triplicity of the Moon, his condition will degenerate as his life goes on;[65] in fact he will fall from property and status because of Saturn's position and sect.[66] Because of Saturn's position, even if his work is good, he will not get thanks and praise from everybody, indeed someone whom he has never harmed will treat him as an enemy. If he is a king, his people will fight each other and be destroyed. But the fact that Mercury is in the cardine under the Earth (the IC) in the aspect of the malefics, suggests that he will actually be a magician, or at least a thief.[67] But the rulers of the triplicity of the Lot of Fortune bring happier tidings. He will make a good and praiseworthy living from strangers,[68] but as this is a nocturnal chart, and no nocturnal planets aspect the Lot of Livelihood, this will only happen after delay and despair.[69] The rulers of the cardines indicate a middling livelihood.[70] For instance, with Venus in the terms of Jupiter he should work as a steward for women and amass some wealth thereby.[71] And because a benefic and malefics aspect the Moon he will attain some nobility and status, though he will be miserable.[72]

The trine aspects do however offer grander potential. He may direct city affairs, or landed estates, or be a busy judge. He will benefit from strangers and be lucky and held in honour.[73] Indeed he will be friends with kings, and loved by them.[74] The Moon-Jupiter trine will give him praise, rank and status.[75] This is backed up by the Saturn-Moon trine, though diminished by the fact that the Moon is waning.[76] With Mars and Jupiter the prediction for his political and judicial role in the local community is reinforced, and because they are in the latter's house, he will be powerful and celebrated in arms, and should ascend to the nobility and be a commander of armies.[77] Because of the trine between Saturn and Jupiter, he will acquire a lot of property, land, trees, buildings and temples. There is a cryptic rider to this prediction: sometimes he will be lord of a group and agree with his father.[78] There are also predictions of moderate success. Mercury with the Sun will make him gentle, a scribe, with status for his culture and reasoning, and a chief who will benefit others.[79] Also Mercury may make him a scientist or mathematician, but this could lead to his downfall.[80] With Jupiter in a double sign and Mercury and the Sun in the IC the indications as to whether he will have more or less property than his father are ambiguous.[81] In general, there is one more helpful observation to add: the Moon will drive off evil for twenty-five years because it is in a cardine in a feminine sign.[82]

Family

He will be the eldest of the children (there are no planets between the ruler of the triplicity and the Ascendant and no malefic and benefic between the Ascendant and Midheaven). Another two will be born because of the presence of Saturn and Venus between the Ascendant and the IC, but the second will die because of Saturn's being a malefic.[83] Because the Ascendant is in Leo, Charles will have few siblings. Mercury, being in the terms of Mars and in opposition to the Moon, will harm them: they either will not get on, or will be sickly, and will probably die.[84] But more optimistic predictions are available by using Lots rather than Places, since the Lot is opposite Venus in a sign of middling fertility, and in aspect to Jupiter. However, according to this method, one of the siblings will be estranged, as Mars, the lord of the Lot, is not in aspect.[85] Counting the number of planets which aspect another Lot (of the number of siblings?) gives five. Dorotheus also mentions the method of counting the number of planets under the Earth in a nocturnal nativity, a procedure which here yields the figure of six. There will be at least one sibling of each sex. And at least one sibling will have no good in him or her, or have sicknesses, or there will be enmity between this sibling and the others. Owing to the fact that neither Saturn nor the luminaries are in their houses, Charles will have siblings who are not his friends or have no use for him, probably the older brothers and the older sister.[86]

The fate of the father is determined first of all by the condition of the Sun. Since the luminary is in a good Place, and in the terms of Jupiter, Charles's father will be of good lineage and better livelihood, but he will lose his property and honour, because, though Mars, the first lord of the Sun's triplicity, is in a good position, Venus, the second lord, is in an evil position.[87] Using Dorotheus' method of calculating the Lot of the Father, good indications of the father's standing and character are reinforced. The mother is also noble in origin, but has gone down in the world, thanks to Venus, the second lord of her triplicity. Dorotheus' method of calculating the Lot puts her in a bad position. But it looks as if she will manage to double her property, as the Moon is in a good Place, aspected by benefics and malefics. If so, Charles will lose some of his.[88] The father will die before the mother, thanks to the Sun's position under the Earth. In fact he will die and Charles will inherit from him at the age of eight years and one month, as Saturn transits the Lot of the Father and Jupiter is within a cardine.[89]

Because the first lord of the triplicity of Venus is in the terms of Mars, under the Earth and not in his Place, aspected by Saturn, Charles will never marry.[90] But Venus is in her house, which indicates marriage abundant in children.[91] Yet taking into account that it is in a tropical sign, this could mean that there will be more than one wife. However, the fact that there is only one planet between Midheaven and Venus contradicts this, and because it is Saturn, suggests coldness and distress.[92] The bad Place in which Venus is found makes it clear that the marriage will be disgraceful.[93] Because the ruler of the Place of Wedding is on the edge of the second Place, the problem results from the involvement of fathers, mature men, or the dead.[94] Or, if we are to prefer the indication of Mercury, he will escape all misery and misfortune on acccount of women.[95] Since the ruler of the Lot of Wedding aspects the Moon, he will marry from among his relatives, probably his nieces, at least for one of his three wives.[96] His relationships with women could be good all his life, or take a dramatic turn for the worse in middle age, before improving again, thanks to the lords of the triplicity of Venus.[97] The best prediction is from Venus' being in Jupiter's terms: he will have power and property from his wife or his wife's work, and he will love her with a powerful love and be happy.[98]

Thanks to the lords of Jupiter's triplicity, in the first part of his life he will have less joy from children than in the middle part, but disaster later.[99] Taking Jupiter as the main lord of his own triplicity, and counting the signs between his house above the Earth (Aquarius) and the Ascendant, we find that Charles will have five children. But the number should be increased because of the presence of the Moon in the signs, and doubled twice because there are two double-bodied signs (Pisces and Gemini): yielding the number of twenty-four or more.[100] The Lot of Children, in Aries, offers another possibility. From the Lot to its lord there are four signs, so four children. The opposition of Venus to the Lot, and the lack of malefics in the relevant signs, indicate that all four will live. But Jupiter in a sterile sign denies children, and Mercury in Scorpio offers plenty but guarantees many deaths as well.[101] There is also a Lot of Transit for Children, which indicates when they will be born, and Lots of Male and Female Children. These are in Virgo and Aquarius respectively, and from their lords we should estimate that there will be more female children, though Saturn's position is ambiguous.[102] Dorotheus' efforts to sum up his doctrines on the number of children only add to the confusion:

> Now I will make the whole thing clear to you. If you find in nativities Jupiter and Mercury not injured, then judge an abundance of children. If these two are not in their illuminator [the Sun] or their dejection, then they do not indicate the existence of children, but if he should have a child, then he will die and grief will reach his father.[103]

The indications are imprecise, because, though they are not in bad Places, Jupiter is injured by the conjunction with Mars, and Mercury could be seen as under the Sun's rays. Dorotheus then turns to the Place of Children for the first time, and produces the final observation: 'if one benefic aspects the Place, then you should not at all despair for his children, but he will have some.' (!)[104]

This section on children well exemplifies the problems evident throughout the process of interpreting the horoscope. We already saw the difficulties in following calculations of the length of life, which could conceivably be explained by the sensitivity of the subject. But in the case of children, or any of the other topics, there is no such problem. Why should the astrologers go out of their way to offer so many incompatible methods for answering any single question? Firmicus takes care to say that no one indication should be taken out of context. But the difficulty of processing Dorotheus' various predictions shows that it is too easy to think in terms of 'tempering the hot with the cold', as Firmicus put it, meaning balancing negative with positive answers. There is no way of balancing the different predictions of the number of children so as to produce a final answer.

AN ANCIENT PARALLEL

The foregoing experiment could be condemned as thoroughly artificial and unconnected with the practice of interpreting horoscopes. Unfortunately, we have only one example of an original horoscope with a full set of interpretations (as opposed to the examples given in treatises) to use for comparisons.[105] Normally there is no interpretation at all, but in two cases there are warnings of danger in particular periods, and in another a remark relating the data to the well-being of the father.[106] In the literary horoscopes, the only interpretations are retrospective, and illustrate how astrological data would have revealed what happened. However, the one full interpretation we have seems to support the results of the 'experiment'.

This horoscope, preserved on papyrus, may well have been found with a set of planetary tables for the years 105–34 CE, which were picked up by the same British collector on a visit to Egypt in 1883–4 (see Plate II).[107] It is tempting to see this as an astrologer's kit. One element missing, though, would be the water-clock mentioned as having been used in conjunction with the tables. The date of the horoscope is 13 April 95 CE, so the papyrus would be from the second century, assuming that the native is more than five years old. The first part of the horoscope, giving the data and the beginning of the interpretation, is in Greek, but most of the rest is in Old Coptic, an Egyptian language of which there are very few examples. Together with the damaged condition of the papyrus, this has made translation very difficult. However, though not all details are secure, it is clear that the successive periods of life are discussed, in relation to the Time-Lord of each, in the manner in which we have seen them discussed in Firmicus and Dorotheus. It is also clear that there is an exceptionally varied set of data, with references to the houses of the planets, the terms, the dodecatemories, the decans and the 'thirtysix horoscopes' and the Lots. The list of decans is different from any other known, the meaning of 'the thirty-six horoscopes' is unclear but seems to be a second version of the decans, and the Lots are determined by principles peculiar to this papyrus. Thus, we can immediately see that, even in relation to a particular horoscope, there is considerable scope for conflicting data. Furthermore, the peculiarity of the methods supports the view that there was not so much a linear development of astrological theory, but rather scope for individual variations on themes. We shall come back to this point later.

The Greek text has been freely translated as follows by the editors, with the passages in square brackets conjectured:

> The first period Venus rules up to six [years nine (?) months twenty-five days. Its position in Lot One, Agathos Daimon, indicates well being and abundance] of pleasure. If he is a slave [he will be set free; if he is poor he will become] rich; if he is rich he will become richer and [whatever slaves] he is master of will increase, as the nativity indicates; and [his crops (?) of whatever sort they are] will do well; and the children from whatever union born will have inborn in them a fine nature like their parents. And he will have excellent associations extending everywhere. He will suffer from cold or fevers or other illnesses; such are the things that Mars portends,… Venus is in Epanaphora (the second

> Place). And Saturn is in trine to Venus (and portends that) he will be cold as regards women. He will be tried before the magistrate for unspeakable associations…he will suffer miserably and will live a miserable life abroad. For the first Lot is a separation (?), the second likewise a separation (?) and the third likewise a separation (?).

This could very easily have been extracted directly from a treatise in the way I used them to interpret Prince Charles's horoscope. There has been no attempt to adapt them to the circumstances of the native, who must be a child at this point in his life, if we are really dealing with periods of life. At any rate, a variety of occupations and stations in life are envisaged. Furthermore, no attempt is made to deal with the apparent contradiction of the favourable predictions from Venus and the unfavourable ones at the end, presumably from Saturn.

In the surviving parts of the horoscope that follow, though there is doubt about details and parts missing, it seems obvious that the native's life is described as a roller-coaster ride of ups and downs whose succession is highly implausible. If we consider the question of his marriage, for instance, having heard that he will be cold to women, we find that in the second period he may neglect his wife or be at odds with her, and then that she will 'burn to the hair' (?). In the next period (roughly twenty years beginning from thirty-four), it seems that his heart will become good through a woman, but then that he will be shamed by one, then that he will have one (presumably as a wife) until year 94, and next that he will see a wife's death or be parted from her. Then (after taking counsel from a woman) his heart will become good for a wife. The last surviving column is very fragmentary, but there seem to be more references to his heart becoming good for a woman, his taking a wife, and to the wife's leaving him. Moreover, if we take the issue of children, who have already been described as of good character, in the third period (roughly ten years beginning from twenty-four), we see that his children may misbehave, or he will part from them on mercantile business, and a child 'will not come to him for ever' (presumably meaning 'will not be born'). Later we learn that he will be given a child in year 42. Thus, though there are difficulties with this text, it seems evident that we have here something very similar to the compilation of predictions that I made, though in this case only concerning the periods of life. The whole is riddled with contradictions.

SOME EXPLANATIONS

Models of learning

We need to look empathetically at what the astrologers might be doing in offering this morass of contradictions. To do this, it is vital to explore the context within which astrological teaching took place. Unfortunately we have little evidence from other sources about specifically astrological instruction. Vettius Valens is rare in mentioning the existence of pupils, and in referring to his efforts to instruct them in relation to his treatise.[108] Thus, to infer the nature of the context, we have to rely on the treatises themselves, and on other evidence about education in general, and the role played by treatises in instruction.

The process which I have just gone through in using the ancient works to interpret a particular horoscope was one of self-instruction. Beginning as an ignorant novice, I took the prescriptions of the books literally, as best as I could. It was a humiliating experience since, at every turn, new ideas which had not been explained seemed to appear. At each point there were doubts about the meaning of the instructions offered. Furthermore, whenever certainty seemed to have been achieved, it was eliminated by new instructions.

There are reflections of this uncertainty in some other ancient sources, which suggest that it was not simply my personal inadequacy as an interpreter which was at stake in this experiment. A good place to start in considering ancient education is Plato, since it is in his works that we first find sustained consideration of the topic, and since his influence on later antiquity was profound.

Plato's *Seventh Letter* contrasts the dialectic method of teaching, which is exemplified by Socrates' personal, interactive mode of instruction, with that afforded by the written word. Words can only offer a shallow form of teaching; they cannot convey ultimate truths.[109] In fact, it is not certain that this is a genuine work, but it certainly attempts to reflect Platonic ideas. In Plato's dialogue, the *Phaedrus,* writing gets little credit. Socrates relates the story of the reception of the new invention of writing. Theuth, Plato's version of the Egyptian god Thoth, who was identified with Hermes, and later Mercury, makes great claims for the new wisdom offered by his invention, but the Egyptian king dismisses these claims. Socrates goes on to expand the king's judgement. Writing cannot provide anything trustworthy or long-lasting:

> You might think that they [words] are speaking as if they were intelligent, but if you ask them something about what they have said, in the hope of learning, they just communicate the same single thing for ever.

This is indeed exactly the experience of the novice reader faced with the astrological treatise purporting to offer instruction. But Plato has a further objection to the effect of putting speech into writing. For him, not everybody is worthy to receive knowledge. He continues:

> Once it is written down, all speech circulates everywhere with no discrimination as to audience, equally among the wrong people, and it does not understand to whom it should speak, and to whom it shouldn't.

This is why instruction can only take place within a dialogue, which a book can never offer. Plato portrays the written word as a living creature in order to make his point: 'In a state of confusion, and unjustly reviled, it [the written word] requires the assistance of its father, for it is not able to defend or help itself on its own.' What he means here, is that to learn anything there must be communication with the author of the thoughts concerned.[110]

Indeed, ancient learning of any craft, or *technē,* would take place in the form of an apprenticeship. It is because of this, as well as thanks to the influence of Plato, that it became proverbial to say that one cannot pilot by the book: that is, one cannot learn to steer a ship (like any other practical skill) from books.[111] This is a frequent phrase in the works of Galen, the great medical author of the second century. In his writings expounding techniques such as those of reading the pulse, he frequently stresses the need for long years of instruction.[112] The doctor's apprentices would follow him to the bedsides of patients to learn their trade. Galen is scathing about those who hope to teach themselves.[113] Astrology too is a craft, and only long apprenticeship allows the experience to make the fine judgements needed.

But there is a tension in writers like Plato and Galen, because, despite their professed need for a very rare sort of reader of their works, and their presentation of the works as records of oral instruction, they publish them. Hence they allow them to circulate to everybody, and, at least in Galen's case, advertise their writings as offering knowledge.

All the didactic texts of antiquity share the problem of communicating through the rigidity of the written form. However,

this problem is not enough to account for the difficulties they present to the reader. It is not simply the problem faced by the modern reader of a manual explaining the use of a gadget such as a video-recorder, for instance. Ancient authors seem to share an attitude to learning, which we have seen in Plato, namely, that not everybody deserves to learn. Knowledge becomes more valuable precisely because few can acquire it.

The model for learning here was initiation into the mystery cults. Most famous in the Greek world were the Mysteries of Eleusis, a village near Athens, but there were a whole host of other cults, including some associated with Dionysus and others with Orpheus or Pythagoras, whose secrets could only be revealed to initiates.[114] Revelation of the secrets was forbidden on pain of death, though allusions were permitted. Each initiate had his guide, his mystagogue. Writers of astrological treatises sometimes seem to see themselves as mystagogues. This model is not confined to astrologers: Galen recommends that the secrets of anatomy which he reveals should be approached like the mysteries.[115] But the astrologers who saw themselves as being in the Hermetic tradition were particularly keen on the analogy. Those who had undergone initiation into the mysteries swore an oath never to speak of their experience. Vettius Valens is one astrological author who emphasises the model of the mysteries frequently:

> I adjure you, most honoured brother, and all those being initiated into this systematic art, learning of the starry bowl of the heavens, and the zodiac and sun and moon and of the five planets, and also of foreknowledge and holy necessity, to keep all these things hidden, and not to share them with the uninitiated, except those who are worthy to keep and receive them rightly.[116]

Firmicus employs the same device. The authors of the treatises, in demanding an oath of their readers, were deliberately evoking the oral context, though they were obviously using the written medium. Here he specifically recalls Pythagoreans and Neoplatonists:

> When Orpheus initiated strangers into his mysteries, he required nothing of them but an oath—an oath backed by the fearful authority of religion—that the rites would not be betrayed to profane ears. It is generally agreed that Plato also was concerned that the cherished concepts of his secret discourses should not

> be revealed to the untaught. Pythagoras, too, and our Porphyry believed that their ideas should be enshrined in religious silence. Therefore, following the rule of these men, my dear Mavortius, I beg you to take an oath…[117]

Firmicus' stated interest is that wicked men should not be initiated, since he is attempting to put astrology on the highest moral ground.[118] But the model of initiation is also appropriate in that it suggests stages of learning. The importance of this is particularly clear in Firmicus, who orders his work in stages. Thus the chart is divided into smaller and smaller units as the explication progresses. First there is the simple division by the four cardinal points, then there is the Eight Place system, then the Twelve Places, then the Lots, and then the *Spbaera Barbarica,* which deals with degrees. Finally he offers a glimpse of the next stage, which is beyond the confines of the book, in which minutes of degrees are considered:

> But, my dear Lollianus, do not look for [the theory of] myriogenesis in these books. When my meagre talent with the help of favourable powers has finished this book, I will write for you in twelve other books the secrets of that teaching. For now everything must be learnt step by step, for we cannot reach myriogenesis by any other way except that our minds have first grasped the secrets of the beginnings of the art.

Elsewhere he says: 'I have reserved for another time the explanation of the myriogenesis.'[119]

But the result of setting up successive stages in this way is that each new stage appears to cancel out the one before. Thus any answers achieved by using the system of the Eight Places are replaced by answers generated by the Twelve Place system, which are in turn replaced by the Lot system. But no one system is given priority over the others. For the novices, the process of learning is humiliating, since every time they learn to operate a system, they find that their answers seem invalidated by another procedure. It is typical of the didactic method as revealed in texts that nothing is explained. Such texts seem designed to ensure that the dangers caused by the apparently egalitarian distribution of teaching through writing are kept at bay. True, everyone who can read the texts can extract the information contained in them, but without the guidance afforded to the few, they cannot use that information.

Ptolemy's *Tetrabiblos* became the most popular astrological treatise in antiquity, but it explained even less than the others. Ptolemy rarely gives details, avoids illustrations, and talks in the most general terms. No one could have had a hope of interpreting a horoscope as a result of reading this work. Yet it was appreciated as the work of a master. Ptolemy does not apologise for the lack of precision: he points to the difficulties, drawing attention to the yawning chasm of knowledge between the novice and the master:

> Such are the effects produced by the several planets, each by itself and in command of its own nature. Associated, however, now with one, now with another, in the different aspects, by the exchange of signs and by their phases with reference to the sun, and experiencing a corresponding tempering of their powers, each produces a character, in its effect, which is the result of the mixture of the natures that have participated, and is complicated. It is of course a hopeless and impossible task to mention the proper outcome of every combination and enumerate absolutely all the aspects of whatever kind since we can conceive of such a variety of them. Consequently questions of this kind are best left to the enterprise and ingenuity of the astrologer, in order to make the distinctions.[120]

No guidance at all is given on how to manage the enormous mass of contradictory data. Indeed, stress is often laid on the importance of each new variable as it appears. There could have been some rules laid down to set out a hierarchy of importance. In the discipline of physiognomies, the art of judging the character and sometimes the destiny from the physique, for instance, rules are set out ordering the parts of the body in order of significance for interpretative purposes. Examples of how to deal with contradictions are sometimes given.[121]

The success of Ptolemy's book suggests that the role of the text which presented itself as a manual was not to teach its readers. It was rather a polished product to be admired by the dilettante, as a masterly exposition of the art. Such works are very often dedicated to patrons who simply have a cultured interest in the subject. Of course, some works were more technical than others. Vettius Valens, who offered so many horoscopes as illustrations, and claimed to address his pupils, was aiming at a more specialist audience than Manilius, who aimed to impress his courtly audience as much by his skill in versifying such difficult subject-matter as by his skill in

horoscopy. But no treatise offered sufficient information to allow a novice reader to compute and interpret a horoscope.

Models of mastery

The didactic text reveals the gulf between master and pupil, while giving the impression of progress towards the unattainable goal. It also reveals the essence of mastery of the art concerned. There are two arenas of intellectual life in the ancient world which are important here. The first, which we have considered, is the master-pupil relationship, and the second is the *agōn,* or public debate. Nietzsche thought that the 'agonal spirit' was the driving-force of Greek civilisation, and many have concurred with this verdict since.[122] From the earliest period of which we have evidence, the *agōn,* or competition, was a fundamental part of Greek life. In the Homeric epics, competitions, which were ceremonially staged on occasions of ritual importance, were athletic. However, even in this era, there were two arenas in which the Homeric hero could distinguish himself, and the second was in the assembly, in public debate. By the times of the Roman empire, there were *agōnes,* or publicly staged competitions, in many areas apart from sport, in physical beauty, arts and crafts, song and dance, dramatic performance, and most importantly, in disputation. The *agōn* was fundamental in Greek education; from earliest childhood, the Greek would have to compete in public. But the public displays put on by the most famous intellectuals, known as sophists, were the culmination of this long training. Most celebrated were contests in epideictic, or display oratory. But the model of this kind of display spread far beyond its traditional form, in which contestants might be asked to treat a theme from Greek history or mythology, such as: What did Alexander say to his troops when they reached the edge of the known world? This competitive display spread into medicine, for example. One chronicler of the exploits of the sophists includes discussion of the best-known member of a group of doctors who were known as 'iatrosophists' or doctor-sophists, in the fourth century, a group who spent as much time learning to speak about their art as practising it. Magnus of Antioch used his rhetorical training to win *agōnes* by arguing that his opponents' patients were still unwell, even though the patients themselves were thanking the other doctors for the wonderful job they had done.[123] This story, of course, exaggerates his talents, and should be set against a number of anecdotes which illustrate the

paradoxical powers of rhetoric. However, we know from inscriptions that there were such contests. At the Asclepeia, a festival in Ephesus celebrating the god of medicine, doctors competed in four branches of *agōn,* including surgery and something to do with medical instruments, as well as speaking on themes prepared and unprepared.[124]

The style and atmosphere of the formal ceremonial *agōn,* which offered a kind of spectator-sport in the field of speaking, were transferred to the public disputes in which exponents of a variety of disciplines engaged. We know that there were such disputes in fields like dream-interpretation and augury, and the rules are quite clear. Galen describes one such dispute between diviners from birds, one an Arab and one a Greek, and makes his judgement. Unsurprisingly, since the rules were Greek, he decides in favour of the Greek. What impresses him is the ability to draw on the expertise of past masters of the art, and above all to draw the most subtle distinctions. 'I recognised that the Arab was lacking in the ability to make distinctions', he says, 'while the Greek was accomplished in making distinctions and a master of the art.'[125] The Greek word for master of the art is *technicos,* that is, experienced in the *technē*. The didactic texts we have are often known as *technai,* the plural of *technē,* because they were expositions of the *technai* concerned. And the mark of the *technē* was the subtlety of distinctions drawn. It is easy to see how this would have evolved in the context of agonistic display. We do not have any accounts of actual public debates between ancient astrologers, but one modern account of astrologers in Madagascar reveals what must have been the essential feature. The anthropologist Maurice Bloch describes his experience of a debate conducted at one remove:

> When I went to one man of importance and then went to another for information, the second would immediately ask what the first had told me, and would then go on to elaborate further, to the admiration of all present.[126]

He also describes a proper competitive debate, which took place at a wedding. The feature of this dispute, whose original point must have been to determine how the couple's horoscopes would interact to affect their marriage, was that neither of the rival astrologers was much concerned about the answers to the question. Instead, the competition was about proving one's knowledge of the most elaborate version.

In this context, it is easy to see how so many rival doctrines would

be invented to deal with the same problem. Astrologers would be constantly forced to cap their rivals with more complex doctrines. The creative input would be in using the relatively simple elements of astrology in endlessly differing new ways, as the competitive context demanded. We can see this in Artemidorus' treatise on dreaminterpretation, dedicated to his son. He warns him: 'If you give a bare, simple explanation, you'll appear inexperienced', and claims that he has made subtle distinctions which cannot be refuted. He is quite open about the influence of the agonistic context, advising his son to use the technique of the anagram when he wanted to appear more knowledgeable in contests with other dream-interpreters, but not for the practice of the art, as it is useless.[127]

Though there are no explicit allusions to contests in Firmicus, for instance, the mark of this model of display is clear in his text. The debating style is visible in his exaggerated insistence on the significance of particular techniques, such as that of the 90th degree: 'The use of this degree seems unknown to many, and is only lightly treated by a few writers. The tract of Petosiris on the subject seems to me to betray a hostile prejudice and attempt to conceal the concept.' He claims that everything can be discovered from this degree, but never explains how, nor discusses it thereafter.

In part, the fear of being seen to lack knowledge of any particular technique leads to the desire to include everything. Thus Firmicus justifies the detail in which he explains the meaning of the planets in different signs: 'I shall discuss this in detail so that a malicious reader may not be able to say to you that we have left anything out.'[128] At the end of the book he claims proudly that nothing has been left out from the traditions handed down by the ancients. In a context where the chief method of challenge is going to be that a further complication has been ignored, it is not surprising that contradiction between competing interpretations is not a worry. Instead, new techniques are offered with pride: thus, immediately after describing one method for dating marriage: 'There is a more subtle way of discovering this.'[129] Dorotheus feels compelled to include techniques that he does not endorse: 'There are some experts who consider in a diurnal nativity how many planets are above the earth.'[130]

SUMMARY

In this chapter we have seen what would happen if the treatises were taken at face value and used to interpret a particular horoscope.

What emerged was that the treatises could not teach anyone how to cast and interpret a horoscope. To any one question, a large number of contradictory responses was available, and there were no clues as to how to choose between them. This finding demanded an explanation. Rather than assume that this was the result of corrupt texts or the stupidity of the astrologers, the normal explanations for apparent confusion in astrological texts, I looked to the contemporary intellectual context. I suggested that different ideals and methods of education were operating. The process of learning was an apprenticeship, and it was akin to a process of initiation, like the mystery cults which were so important in the Greek world. The stages of initiation, in which each new level displaced the last, could explain the apparent reduplication of methods for finding out about any one matter. Furthermore, on analogy with other fields of knowledge, didactic texts were not the means of teaching, but rather of displaying knowledge. Secondly, I pointed to the importance of the institution of the *agōn,* or public debate, in Greco-Roman intellectual culture. Here too was a possible explanation for reduplication—in such a context, the most important thing was to be able to find a more elaborate explanation than an opponent could.

In this chapter something of the social world of the astrologers emerged in the predictions for the horoscope. In the next, we shall examine this world more closely, attempting to delineate it and locate it in space and time. We will be returning to the idea of the *technē,* and looking at how this genre of writing affected the astrologers' reflections of the world.

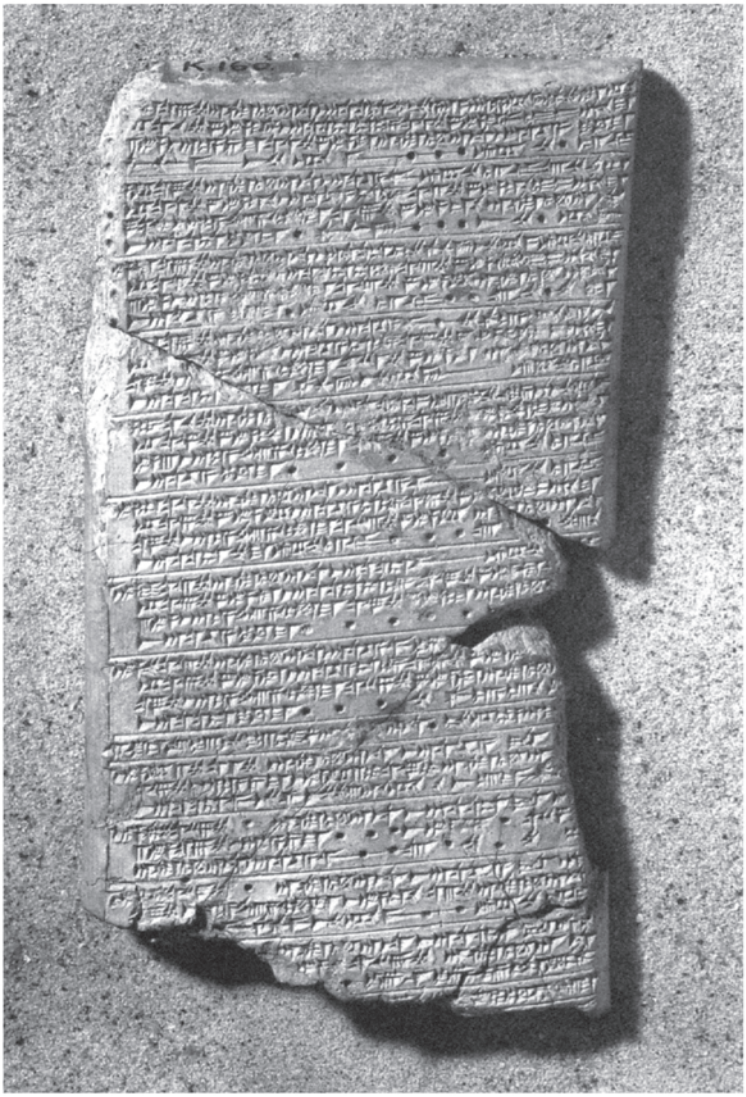

Plate 1 Venus Tablet of Ammi$aduqa, a seventh-century BCE version of observations which are probably of the seventeenth century BCE. Copyright British Museum.

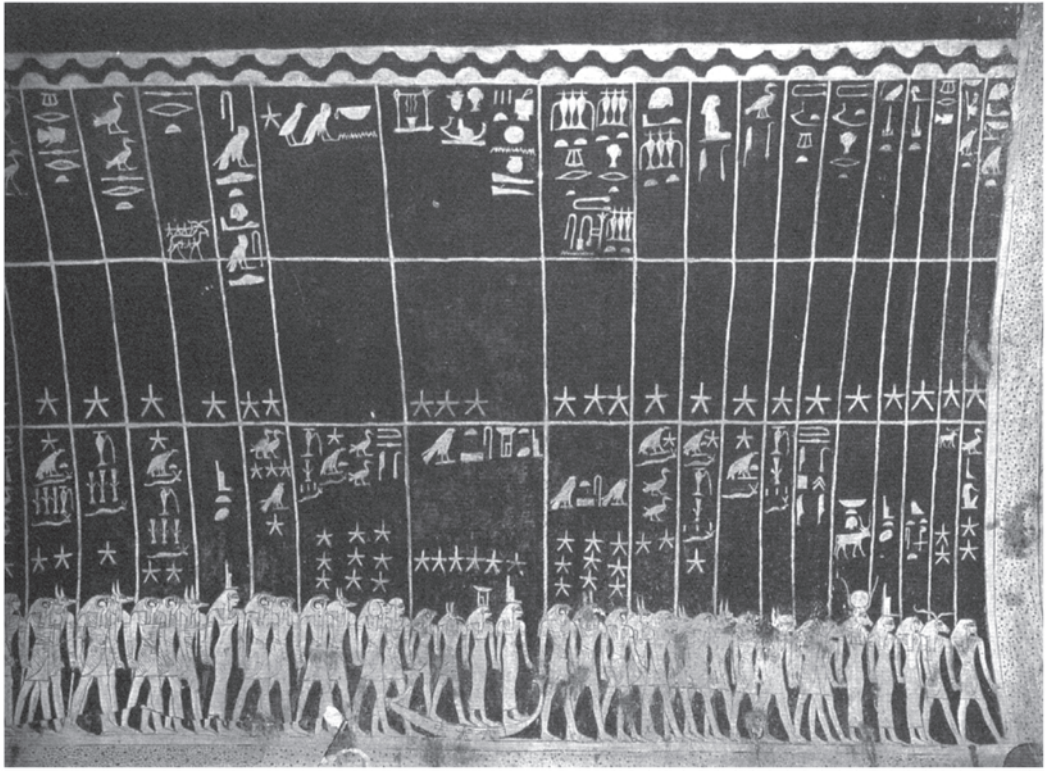

Plate 2 Part of the ceiling of the sepulchral Hall of the tomb of King Ṣeti I(1313–1292BCE) in the Valley of the Kings,depicting the sky. Here are some of the thirty-six decans, with the top register showing the star-names, some with epithets, the middle register the stars corresponding to the names, and the lowest register the names of divinites associated with the stars and the diviniters themselves. At the bottom in the middle are Isis and Osiris on a barge.

Plate 3 Sandstone relife of the zodiac on a ceiling in Dendera, Egypt, probably of the first century CE.

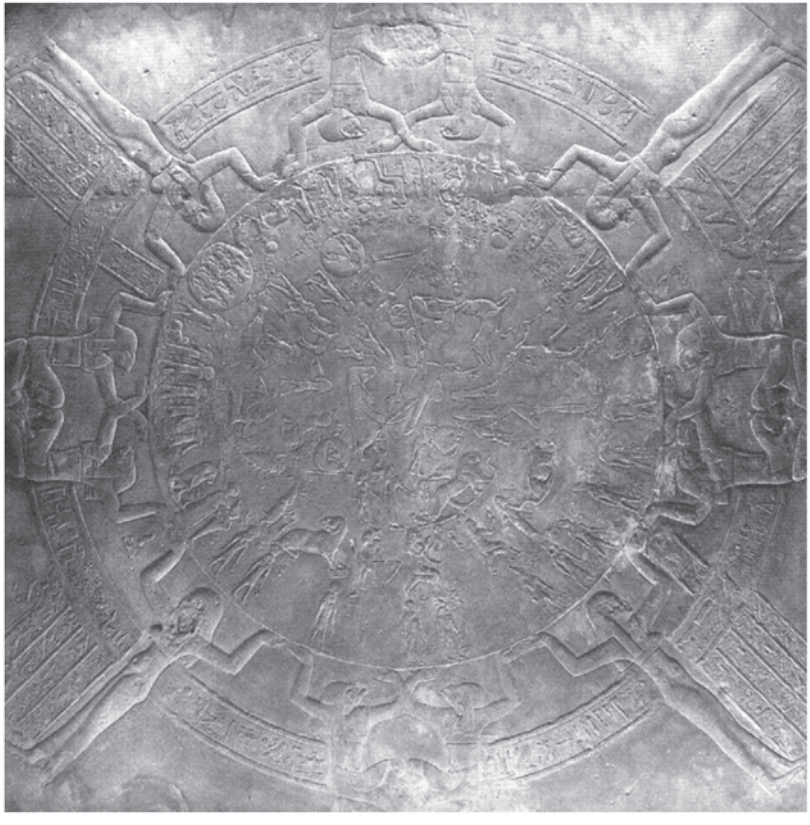

Plate 4 Thoth, the Egyptian god identified with Hermes Trismegistus, from the tomb of Amen-hr-Kopeshf, son of Rameses III, of the XX dynasty, at Deir-al-Medina. On the left he is shown with the head of a dog, and on the right with the head of an ibis, supporting a lunar crescent on his head. He was the scribe of the gods, the inventor of the arts and sciences, and the master of magic.

Plate 5 Coins of Augustus illustrating his use of his zodiac sign, Capricorn, in conjunction with different political messages. *From top, left to right:* Obverse, head of Augustus, reverse, Capricorn with a globe between its feet, symbol of world domination; legend referring to his being acclaimed 'Imperator' eleven times. Obverse, head of Augustus with small Capricorn, reverse, crocodile, symbol of Egypt, with the legend 'Egypt taken', referring to his defeat of Antony and Cleopatra. Bottom, reverse showing Capricorn with the legend referring to the return of the lost Roman standards from Parthia, a diplomatic victory. Reverse showing Capricorn with globe and rudder between its feet and horn of plenty on its back, associating Augustus with the goddess Fortune, and with the new Golden Age. Copyright British Museum.

Plate 6 The first Greek horoscope found on an original document, identified as the coronation-horoscope of Antiochus I of Commagene, of 7 July 62 BCE. It appears on the Western Terrace of his tomb-complex, which is on the summit of Nimrud Dagh, about 7,000 feet above sea-level in the Taurus mountains. Jupiter, Mercury, Mars and the Moon are shown in conjunction in Leo (according to Eudoxus' zodiacal division).

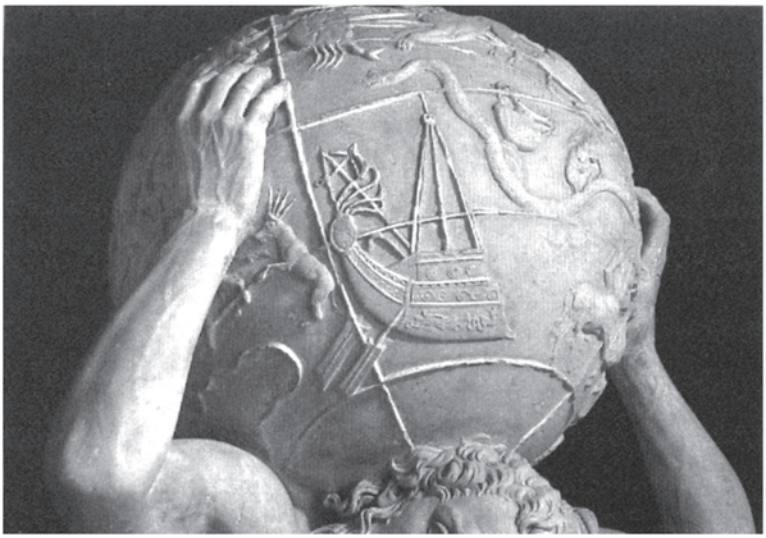

Plate 7 Celestial globe, supported by Atlas, the god who holds up the sky in Greek mythology, Roman, first century CE. The zodiacal band runs across the top. Naples, Museo Nazionale.

Jupiter

Mercury

Mars

Apollo (Sun)

Saturn

Diana

Venus

Plate 8 Octagonal altar from Roman Gaul, probably of the third century or later, found near Metz, showing the planetary deities of the days of the week, dediccate to 'Jupiter Best and Greatest'.

Plate 9 Mosaic from the centre of the floor of an exacavated synagogue of the first half of the sixth century CE in Palestine at Beth Alpha, today Hefzibah. It shows the Sun in his chariot at the centre, surrounded by the signs of the zodiac.

Plate 10 Gnostic relief, showing the goddess of the sky with the lunar crescent above her head, surrounded by seven stars representing the planets and the twelve zodiac signs. An inscription below it which dates the monument as second or third century CE, not visible here, gives the names of the seven Gnostic archons. The twelve signs may represent the Gnostic Aeons. Copyright British Museum.

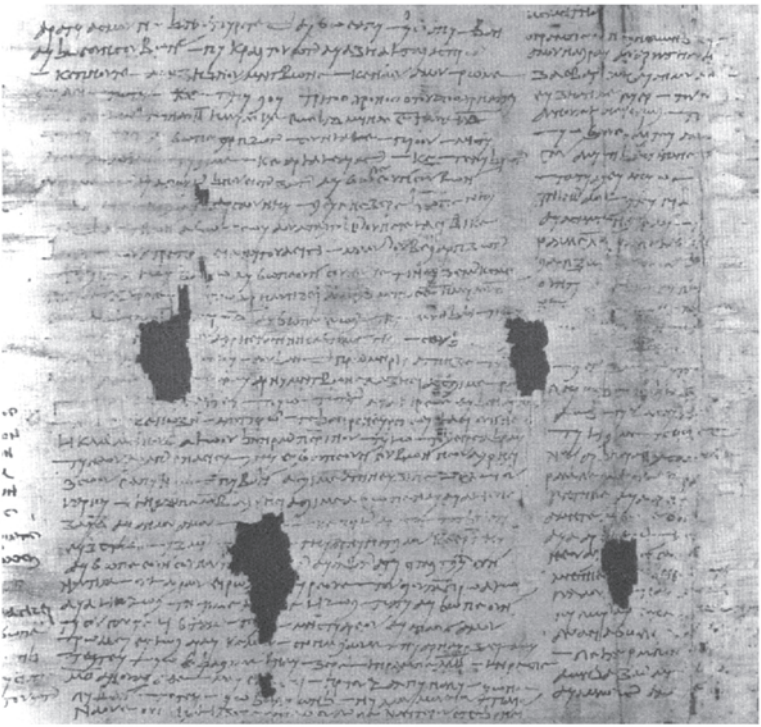

Plate 11 Part of the papyrus known as the 'Old Coptic Horoscope', the only non-literary horoscope with substantial interpretation of the data, for the date 13 April 95 CE. Copyright British Library.

Plate 12 One of the earliest printed maps of the world, done to illustrate Ptolem's *Geography* in 1478, showing the *climata*, or zones determined according to the length day (labelled top left). It corresponds approximately to the account given in disussion of mundane astrology in the *Tetrabiblos*. Copyrigth Briotish Library.

Plate 13 Impressions from magical seal-stones with astral emblems, reversed image: (a) A ten-footed scorpion surrounded by the heads of a bull and a ram, the Sun, the Moon and the Balance of Libra. The reverse has a palm and a Christian sign, with the inscription, 'Keep away from injustice (or the unjust man) and fear will not come near you.' (b) The head of a woman, with a crescent above, looking towards a ten-footed crab, representing the house of the Moon. The reverse has an inscription of a magical incantation, (c) The name Barkaba, seven stars, two arrows and the magical name Iao (taken from the name of the Jewish God) on one side and, on the other, Adone, perhaps from the Hebrew meaning Lord, between a star and a crescent, with two arrows and the magical name Abrasas. Bibliothèque Nationale, Paris.

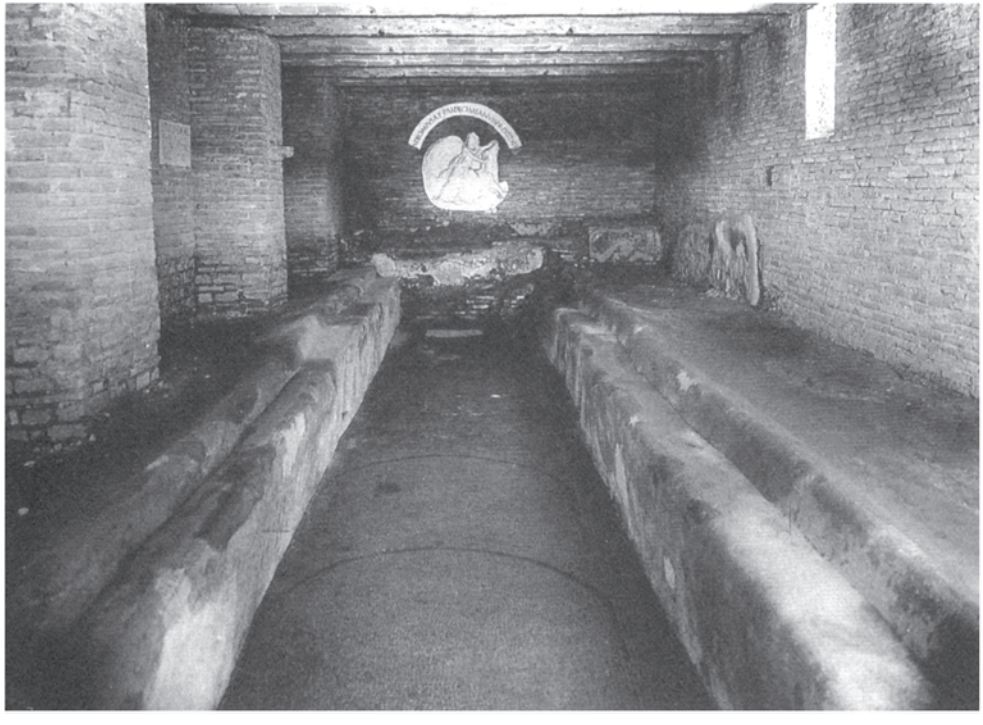

Plate 14 Restored Mithraeum in Ostia, known as Sette Sfere after the circles visible on the pavement representing the seven spheres of the planets(CIMRM 239). The circles also represent the grades, rising to the highest at the far end, where the cult-niche is the focus. On the front of the benches are representations of the planet-deities, with Diana (the Moon), Mercury and Jupiter on the left, and Saturn, Venus and Mars on the right. The Sun is presumably represented by Mithras himself. On the projecting ledges of the benches are the signs of the zodiac, with a star above each.

Plate 15 Scene of the birth of Mithras out of an egg, from Housesteads on Hadrian's Wall, showing the zodiac in reverse, arranged so as to correspond to the planetary houses. Copyright Museum of Antiquities of the University, Newcastle-upon-Tyne.

Plate 16 Front face of an altar to the Sun-god, dedicated by slaves or ex-slaves employed in storehouses who came from Palmyra, a city between Syria and Babylonia, which was part of the Empire from the early first century CE. While this face has a Latin inscription of standard type, the left face has a different portrayal of the Sun-god in his chariot which perhaps conforms to images of Palmyrene type, where the Sun-god was an important deity. Below it is an inscription on Palmyrene characters. It is usually dated to the second or third century CE. Rome, Capitoline Museum.

6

THE SOCIAL WORLD OF THE ASTROLOGERS

INTRODUCTION: THE CONTEXT OF PREDICTIONS IN THE TREATISES

As will have been obvious in the previous chapter, there are glimpses of a different world from our own to be found in the predictions of the astrological treatises. In this chapter I will be looking at some examples of such glimpses, considering which social contexts are evoked and the extent to which the treatises faithfully reflect the world around them.

The first problem is to determine the time and place of the social context. One scholar extracted as much evidence as possible from the standard astrological texts, which reached their final form in Byzantine times, in order to help reconstruct the world of the clergy in Egyptian temples of the Ptolemaic era.[1] Others have referred the same evidence to the Roman Empire.[2] The problem is due to the conservative nature of astrology: it is clear from even the few texts that we have that some sections were preserved in recognisable form over hundreds of years.

For a start, there are traces of Babylonian texts. When we find a term like 'satrap',[3] it reflects no Greco-Roman political scene, but that of the Persian empire. There are a number of texts which depend on Babylonian models[4] but have been adapted to suit local conditions. Some of the material in the first book of Hephaestion is most plausibly dated to the Hellenistic period. For instance, in a passage on eclipses and comets, reference is made to spelt, which was no longer cultivated in the Roman period. A prediction is made of a barbarian expedition against the Greeks bringing disorder to Macedonia and death in combat to the chiefs, which most plausibly relates to the years 280–275 BCE. And another eclipse mentioned seems to be related to the

victory of Cn. Domitius Ahenobarbus over Antiochus III in 189 BCE. However, it has recently been argued that these passages were based on Greek historians of the second or first century BCE, so that they were not contemporary anyway.[5]

There are frequent references to kings in the plural, sometimes paired with tyrants, the Greek name for rulers who had seized power for themselves. This might suggest a period before the Roman Empire had completely subjugated the Greek world. However, there are cases in individual horoscopes of the imperial period where updating has taken place, and 'king' is clearly used to mean emperor.[6] Furthermore, in the Later Roman Empire the term *reges* (kings) is used widely: it is used of Prankish chiefs for instance in the *Panegyric of Constantine*. In addition, the term 'king of kings' may have its origin in Babylon, but could also refer to the Late Empire: Constantine created a kingdom in Asia for his nephew Hannibalianus, and at least one source states that he was given the title 'king of kings'.[7] As for tyrants, we find this term used for would-be emperors who did not succeed in gaining full recognition in the Late Empire.[8]

References to the royal court tell us little about any particular period. The benefits of working at the royal court only differed in degree, according to whether the court was Ptolemaic or imperial, and the internal organisation was similar in both. If we consider examples of references to arrangements at court, we can see that they are undatable. For instance, the women of the royal or imperial household could always provide a suitable channel of patronage, and the positions available in the court entourage could be described by similar vocabulary. The Greek *eisangeleus,* for example, could equally refer to the man who introduced visitors who came for royal audience at the Persian, Ptolemaic or Roman imperial court. And you could expect to find in all three a variety of secretaries, people in charge of taxes and revenues, bodyguards and a tutor for the royal children, interpreters to deal with foreign subjects, people to amuse the king, such as dwarfs and hunchbacks, and runners to deliver messages.[9]

However, if all ancient royal households are not easily differentiated in this context, there are instances where it is the Hellenistic governmental organisation which seems to be reflected. Vettius Valens, Manetho and Firmicus all speak of a prediction that someone will be a general or an admiral, a leader of navies or infantry, as if they were equivalent.[10] Yet under the Roman Empire, there was no comparison between commanding legions and the rabble of

noncitizens and ex-slaves who worked in the navies. On the whole the question of period cannot be settled by evidence on the administration, despite strong claims on either side. Does the reference to the 'first ten men' in Firmicus reflect the local tribunals of Hellenistic Egypt, or the municipal aristocracy of the Late Empire?[11] This is just one instance of a debate about the character of the administration portrayed in the treatises.

One influential scholar, Franz Cumont, has argued that a narrower geographical as well as chronological context is detectable in the treatises. He claims that the ultimate source of the treatises must be the Hellenised clergy of the Egyptian temples.[12] He points to the fact that there seems to be a great deal of material concerning temples, with precise information about the various people attached to them, whereas there is not much about farmers. We learn of high priests, administrators, the *prophētēs* or interpreter of the gods, priests and priestesses, temple-wardens, the people who look after the sacred statues and dress them, and guard cult objects, the sacred scribes, the lamp-lighters, sacrificers, guards, servitors and the 'slaves of the gods', possessed people, sick and asylum-seekers. Indeed Clement of Alexandria in the second century CE and Porphyry in the fourth named as one class of priests *boroscopoi* or *borologoi,* interpreters of the *Book of Hermes*.[13] These could be the people among whom Hellenistic astrology originated. However, this name might only refer to those concerned with auspicious and inauspicious days in the Egyptian calendar.

Cumont's theory about the origins of Western astrology must remain a hypothesis. It is true that there is little on farmers in comparison to the proportion of people in the ancient world engaged in agriculture: only six references in Firmicus, with seven to herdsmen, and only four in Vettius Valens, for instance. There are many more references to horticulture. But this may reflect the urban nature of the astrologers' clientele, rather than a lack of interest in farming among the priestly class.

Cumont also made much of other silences in the treatises. While the followers of cults such as the Great Mother Cybele are mentioned, Jews, who were very visible in Alexandria, are not. This, he suggests, shows that the origin of the treatises lay in Memphite temples, rather than in Alexandria. But this may simply illustrate the lack of interest in Jews in the Empire as a whole, if we see the context of the treatises as being that of their circulation rather than that of their putative origins. At any rate Jews were bound to arouse less interest than the

followers of Cybele, whose priests were castrated. As we see below, the astrologers were much interested in explaining this kind of deviancy.

Attempts to pin down a precise milieu for the production of astrological ideas are doomed from the start, since it is normally impossible to identify elements which are derived from the oldest sources in their new context. It is simplest to see the social world of the astrologers as a composite culture, ranging over the Greek-speaking part of the Empire (with Roman accretions in Firmicus) and covering about half a millennium in time.

THE POORER CLASSES

There is a great dearth of information about people other than the elite, as we have already seen, because our sources are generally the elite themselves, or at least their protégés. However, more attention is paid to the lower ranks of society in astrological treatises than in literary sources, and these writings offer a different window on their lives from that available from official sources, such as administrative records. Clearly, in the predictions they offer, the astrologers reflect what seemed possible to their contemporaries, and so the information could be of particular use to historians interested in others than the social and political elite. Some scholars have argued that the truth of what they say is guaranteed by the unself conscious nature of their revelations in comparison to the biases of the literary figures who are the usual sources for students of ancient history.[14]

But the astrologers have their own literary agenda. The reason that the poor receive so much attention is partly because of the grand theme of the treatises—the relationship between good fortune and ill fortune. Vettius Valens waxes lyrical on the topic:

> Fate has decreed for every human being the unalterable realisation of his horoscope, fortifying it with many causes of good and bad things to come. Because of them, two self-begotten goddesses, Hope and Chance, act as the servants of Destiny. They rule our lives. By compulsion and deception they make us accept what has been decreed. One of them (Chance) manifests herself to all through the outcome of the horoscope, showing herself sometimes as good and kind, sometimes as dark and cruel. Some she raises up in order to throw them down; others she flings into obscurity in order to lift them up into greater splendour. The other (Hope) is neither dark nor

> serene; she hides herself and goes around in disguise and smiles at everyone like a flatterer and points out to them many attractive prospects which it is impossible to attain.[15]

A degree's movement or less in the Ascendant, the shadow of the presence of a planet, and the native falls from a glorious career to a miserable existence. Sometimes graphic descriptions of the life of the poor are simply a matter of making that difference the more vivid.

> But if the full Moon moves away from Mercury toward Saturn by day, the natives will have laborious occupations around water as labourers who hire out their bodies, carrying loads on their back and shoulders. Some end in prison, condemned by the court, and die in squalor, unkempt of hair and deformed, especially if malefic planets are in aspect to this combination.[16]

In Firmicus in particular, one can see that his oratorical training is being put to good use in exploring the theme of the fickleness of fortune.

> If the Moon is…void of course, in aspect to no planet, with no benefics on the cardines, this will make paupers destitute of all necessities, without means of daily life. They beg for a living and are always in need of a stranger's help to sustain life. They will always be inferior to their parents; and their bodies sickly. They suffer from infected wounds or malignant humours underneath the skin which attack their joints.[17]

Indeed this is followed by a passage in which the author revels in the potential reversals in fortune brought by the Moon (the planet most associated with Fortune):

> the natives will be stripped of everything, worn out with constant toil, seeking a livelihood with labour and and sweat. As soon as they come near to good fortune, even from the highest step she casts them down again. Sometimes she leads them to the top but does not allow them to grasp good fortune. For when the Moon is void of course she involves the early years in wretched misfortunes. But after she has for a time troubled the body and mind and ruined their youth with many crimes, dragged them here and there in miserable journeys, then she bestows good fortune equal to the mishaps of youth.[18]

But those of the humblest estate are not always viewed at this distance.

Dorotheus is presumably responding to clients' demands in his chapters on whether the native will be a slave, or will be a servant in a condition like slavery, whether he will be treated well or with scorn, and how many owners he will have.[19] The fact that legal texts mention that slaves should be crucified if they make astrological enquiries about their owners may back up the impression given by the treatises that slaves resort to astrologers.[20] But the laws may simply reflect the worries of slave-owners.

OCCUPATIONS: JOBS FOR THE BOYS

Astrological texts aim to offer an impression of completeness. Manilius asserts that astrology embraces:

> every sort of fact, every effort, every achievement, every skill and every vicissitude that through all the phases of human life may concern human fate; and it has disposed these in as many varied ways as there are positions of the stars; has attributed to each object definite functions and appropriate names, and through the stars, by a fixed system, has ordained a complete census of the human race.[21]

The impression of completeness is most effectively given by the vast number of occupations mentioned in the treatises.[22] These references could reflect the full range of plausible clients. After all, one of the main questions addressed to astrologers concerned the native's means of making a living. As we have already seen, some areas received more attention than others. A great variety of different crafts is specified, including bracelet makers, pearl workers, embroiderers, gold-leaf workers, hunting-gear makers, gold-thread garment adorners, mosaic workers, gem polishers, painters and setters, wreath makers, purplewool weavers and organ builders—the specialisms are startling. The whole circus is accounted for, from the tight-rope walkers, prestidigitators and jugglers with goblets or stones to those who jumped from chariot to chariot, not forgetting those who exhibit wild animals and snake-charmers. Lascivious dancers who sing obscene songs are not to be left out, they jostle with river-bank inspectors, breeders of sacrificial animals, sponge divers, sewer cleaners, archivists, tomb guardians, bird catchers, composers, exorcists, fish-sauce sellers, forgers and furriers, informers, inventors of theories, dove-breeders, exorcists, manure-carriers, pimps, prospectors, torturers, wrestlers and corpse-washers.

There are few occupations of women mentioned. A woman might be an actress, a midwife, a children's nurse, a priestess, a prostitute or a queen, a janitor or a slave. This does not reflect the range of women's occupations, but rather the lack of importance attached to their work as part of their identity.

Often the job is not simply enumerated but indications of how it is valued in society, and its potential for good or bad fortune for the person concerned, are outlined. Here we may find a picture which complements other literary sources. For instance, the position of being a financial agent *(epitropos* or *procurator)* for a woman is mentioned as a potentially lucrative post.[23] Such people could be found in the Greek or Roman milieu, and they were the object of suspicion in some quarters. The Roman epigrammatist Martial warned a husband against the dandy with the curled hair who was agent to his wife.[24]

Furthermore, attitudes to the various occupations can be gauged from the influences which produce them. For instance, it is the combination of the ambiguous Mercury and the main malefic Saturn, in the weak third Place or with the Sun in the Descendant, which makes corpse-washers, corpse-watchers and funeral managers.[25] Venus in the eleventh house, as evening star, in aspect to the malefics, makes pederasts or actresses.[26] These value-judgements may offer a way in to a different moral universe.

SEX: POLYMORPHOUS PERVERSITY

There are fascinating clues to the understanding of gender stereotypes in the astrologers. The figure of the *cinaidos,* or *cinaedus,* the effeminate man or passive homosexual, receives quite a lot of attention from the astrologers. Firmicus makes a distinction between the public *cinaedus,* whose status is made clear, and the man who is secretly a *cinaedus,* about whom nothing more is said. However, it seems that it was better to be a secret *cinaedus,* since positive astral influences hid the vice. Most configurations of public *cinaedi* refer to male prostitutes, who are described as suffering public disgrace. Similar sets of conditions apply to female prostitutes, suggesting that they were regarded as equivalent.[27] But they are most associated with castrates and eunuchs. *Cinaedi* are equated with masculine, sterile women by mirror-image configurations (Mars and Venus in conjunction in a morning rising and a masculine sign for women, and in an evening rising in a feminine sign for men), though they tend to require the additional

element of the influence of Saturn.[28] From non-astrological texts we hear nothing positive about *cinaedi*. But we gather from Firmicus that they could be rich, famous for their charm and sophistication, or even court officials.[29] There could be an association with the temples, where they might sing in the choir, or take on other duties, or they might play instruments in the worship of the Great Mother Cybele.[30]

All the astrologers, even Ptolemy who is less inclined to detail, offer this carefully arranged catalogue of sexual or gender deviancy: a passage will suffice to indicate the technical tone:

> If Venus and Saturn are also in the common signs, that is, Capricorn or Libra, they portend sexual relations within the family. If the Moon is present with this aforesaid combination when it is at the Ascendant or Midheaven, she makes men have intercourse with their sons, their brother's sons, or their daughters' husbands. The Sun, particularly if the planets are setting, makes men have intercourse with their daughters, daughters' sisters, or sons' wives, and the women have intercourse with their fathers, fathers' brothers, or stepfathers. But if the aforesaid aspects do not happen to be composed of signs of the same gender, but are in feminine places, thus they produce lechers, ready for active and passive sex of every kind, and in some formations utterly obscene people, as for instance in the front and hind parts of Aries, the Hyades, and the Pitcher, and the hind parts of Leo, and the face of Capricorn. But if the configuration is angular, on the first two cardines, the eastern and the Midheaven, they make a complete display of their abnormalities, exhibiting them even in public places; on the last two, that is, the western and northern, they produce castrates and eunuchs or (? genitals) or sterile or impenetrable women; if Mars is present, men who have lost their genitals or lesbians.[31]

Firmicus spreads the net wider, and allows a little more colour into the picture:

> Venus in Capricorn with Saturn in opposition makes the natives hated by their wives in every way. Their bodies in heavy sweat give off an unpleasant goat-like odour. They will be despised in sexual relations and always be objects of scandal for their vicious desires. Jupiter lessens these difficulties to a certain

> extent if he is in trine to Venus, and he somewhat cleanses the odour.
>
> The Moon, Saturn and Venus in the seventh Place, that is, on the Descendant, make perverts with effeminate softness of body who dance on the stage and act in ancient fables, especially if Mars is in square aspect. For then he makes them addicted to all kinds of base vices; they also practise impure intercourse with their wives.[32]

Impure intercourse probably refers to oral sex; elsewhere Firmicus tells us that a rare configuration makes the native impure of mouth, which definitely refers to cunnilingus.[33] Despite Firmicus' more colourful predictions, there is a formulaic aspect to all the astrologers' accounts: they are explicitly variations on themes, in which particular elements are combined in a number of different ways to produce accordingly varied effects.

A similar set of variations can be found in another *techne,* that of dream-interpretation. Here the sexual acts themselves are the predictors of other events. Artemidorus, the author of *The Interpretation of Dreams,* divides sexual acts up into those which are natural, legal and customary, and those which are illegal, and those which are unnatural. (These last include sexual activity with gods, animals, corpses, with oneself, or relations between two women.) If we take one category, the illegal, which is mainly the category of incest, it is divided up into incest between father and son or daughter, nearly always unfavourable, and between son and mother, nearly always favourable. There are a number of factors to be taken into account in the first set of cases: the age and normal home of the child, its marital status, the passivity or activity of the partners, and the relative financial situations of the pair. In the second group of cases, it is even more complicated:

> The case of one's mother is both complex and manifold…The fact is that the mere act of intercourse by itself is not enough to show what is portended. Rather, the manner of the embraces and the various positions of the bodies indicate different outcomes. First, then, we will discuss face-to-face intercourse between a dreamer and his living mother, since a mother who is alive does not have the same meaning as a mother who is dead. Therefore, if anyone possesses his mother through faceto-face intercourse…if she is still alive and his father is in good health, it means that he and his father will become enemies… But if his

> father is sick, he will die…But it is lucky for every craftsman and labourer…It is also lucky for every demagogue and public figure… If the dreamer is estranged from his mother, they will become friends again… It is not good to possess a mother who is looking away from one… It is also unlucky to have intercourse with one's mother while she is standing. For men use this position only when they have neither bed nor mattress… It is also bad to have intercourse with one's mother while she is kneeling. For it signifies great poverty because of the mother's immobility. Possessing one's mother from underneath while she is in the 'rider' position is interpreted by some as signifying death to the dreamer. For a mother is like the earth…the earth lies above the dead only. But I have observed that those in good health spend the rest of their lives in great comfort…[since] in this position the male derives his pleasure without exerting himself…But it is not auspicious to use many different positions on one's mother. For it is not right to insult one's mother. In my experience, however, the worst dream by far is one in which the dreamer practices fellatio with his mother. For this signifies to the dreamer the death of children, the loss of property and grave illness. I know of a man, who, after this dream, lost his penis. For it was understandable that he was punished in the part of the body with which he had sinned.[34]

There is a minute, precise and technical examination of the issue in both astrologers and the dream-interpreter: clearly, this mode of dealing with the subject was seen as appropriate for the *techne*. However, the ways of dividing up possible acts may not offer an undistorting mirror to the moral views of antiquity; there are different categorisations in different *technai,* as we can see from these examples, and the rigour of the classification results from the demands of prediction. Whereas these examples, supported by other ancient testimony, reflect the negative attitude to oral sex, for instance, one certainly could not conclude from the predictions in Artemidorus that incest with the mother was regarded with more equanimity than incest with a child.

DEATH: VARIETIES OF VIOLENCE

Another area particularly subject to this kind of technical examination was that of violent death.[35] There was a named category for people

who died violently: *biaiothanatoi*. Again there is a context of classification according to nature and against nature. Ptolemy explains unnatural deaths as follows:

> They die, however, by violent and conspicuous means whenever both the planets dominate the destructive Places, either in conjunction, or in quartile, or in opposition, or also if one of the two, or both, seize upon the Sun, or the Moon, or both the luminaries. The affliction of the death in this case arises from their junction, its magnitude from the testimony of the luminaries, and its quality, again, from the way in which the other planets regard them, and from the signs in which the evil planets are found.[36]

Violent death was against nature: it occurred before term. Part of the fascination with it was perhaps because it appeared to challenge notions of a fixed fate. Critics of astrology cited cases of mass deaths, such as by war or shipwreck, as evidence against astrologers' ability to predict: surely all those who died in the same way did not share the same horoscope. Possibly, astrologers' careful explanations were designed to counter any such crude version of astrology. But another cause of the focus on violent death was doubtless its sensational interest. Here was perhaps the ancient equivalent of tabloid journalism, in its concentration on the bizarre and dramatic.

In the part of the underworld reserved for those who die before their time, Virgil in the *Aeneid* has only a few categories: those who had died as infants, those condemned to die on a false accusation, suicides, those who died from love and soldiers who had been killed in battle.[37] The astrologers' various lists were far more extensive, again giving the impression of a methodical, thorough examination, in which predictions are related to predisposing conditions in a manner which conforms to logical arrangement. In Vettius Valens, the examination moves round the zodiac, from Aries to Pisces, and within each sign there is a set of variants conforming to a precise classification of violent deaths. The major factor is one or more planetary aspect, and after that, the situation of the relevant planets or other astrological entities, the sign and Place in which it is found, which, interacting with the characters of the planets, determine the type of death. The first division is between those who dispense violent death and those who are victims of it. Death-bringers have the Sun in Aries: these are divided into those who are murderers in general, those who are bandits, those who kill themselves and murderers of

women (where Venus is normally involved). Mars, the impetuous, bellicose planet, is nearly always involved in violent deaths; if it is not directly implicated, then its house (Aries) or exaltation (Scorpio). Those who kill themselves are divided by astrologers into those who are asphyxiated in water, by fire, by hanging, and those who throw themselves from a height, who die by the sword, by poison, by snake-bite, or by self-starvation, and those who do it because of women. Suicides are provoked by the attack of one planet (normally Mars) on another, or by its attack on itself (represented by its house or exaltation), and the means of suicide is indicated by the types of signs.

Victims are most exhaustively classified. Some kinds of violent death border on the province of medical astrology: at least as many varieties of death by disease are also examined. The sign of the Sun is a crucial determinant, given the appropriate signs that death will be violent. Deaths by poison, by snake-bite, by mutilations or amputations, by fatal breaks in bones are considered. These last are divided by cause: a fall from a horse, or a chariot, or a height in general may have led to the break, or wild beasts may have torn the victim apart. Again, the signs determine the location, in seas, rivers or the baths, in public or in private, and so on. Thus if death by wild beasts (determined by animal signs) is in public, it will be in the amphitheatre. Deaths as a result of the judicial system are considered, those resulting from the decision of the sovereign or from judges at a lower level, whether after long imprisonment or not, and the means of punishment are set out: by amputation, by fire, or impaling. Deaths in war, as a result of attacks by bandits or pirates, and as a result of feminine plots, all find their astrological explanation. In the latter case, for instance:

> If [Saturn] is in aspect to Mercury, and particularly in the neighbourhood of the serpents in the sphere *[paranatellonta* such as Ophiouchos, Draco and Hydra], or in the terrestrial signs, he makes men die from the bites of poisonous creatures, and if Venus is present with them, by poisoning and feminine plots.[38]

Here we see the formulaic logic which exemplifies the transformations of real life by the *technē*. Death by snake-bite is an important category because of the prominence of serpent-like constellations, and death because of women is a category resulting from the role of Venus, as pre-eminently feminine planet. Poison was connected with the bites

or stings of poisonous animals, and poisoning was seen as the typical weapon of a scheming woman.

CAMEO LIVES

Vettius Valens does pepper his discussion of the subject of violent deaths with real examples, that is to say horoscopes which correspond to a definite point in time. Thus in the horoscope of a man born on 29 July 89 CE, after enumerating the data he concludes: 'This man hanged himself.' For another born on 4 April 91 he ends: 'This man was killed by wild beasts', for a third born on 23 February 97: 'This person was beheaded', and for a fourth born on 28 January 101: 'This person was burned to death in a bath.'[39] Further examples of such laconic accounts are a man who had tender feet and was a lunatic, a hunchback, a man with short arms, a man who was castrated and a man who was effeminate 'and had unmentionable vices'.[40] Another born in 62 CE was a eunuch priest of Cybele who got into trouble with the authorities.[41]

Sometimes the horoscopes concern only one dramatic incident. A man in his twentieth year was caught with his parents by a group of robbers. They were both killed but he escaped.[42] Another, a soldier, found himself at the age of thirty-five in prison, where he was loved by a woman who helped him get out of a troublesome accusation; he escaped and captured a runaway slave.[43] Another soldier (presumably an officer) in his forty-second year, was fleeing from battle when he fell from his horse and was wounded. He thus got mixed up with those who had been killed, and succeeded in escaping to lead the campaign.[44] A dancer was imprisoned in his twenty-fifth year during a public riot, for which Valens blames him. But as a result of the intervention of friends and the entreaties of the crowd he was freed, to be more acclaimed than before.[45] Another man was among six who survived a shipwreck.[46]

The horoscopes given in literary texts are often long and detailed. They have sometimes been used as complementary sources of evidence about particular people, though the natives are rarely identified. But in using them thus, it is necessary to remember that the data have been selected in order to illustrate a particular doctrine.

Firmicus only offers us one horoscope as illustration apart from figures from myth and history, and it is certainly a fine illustration of the fickleness of Fortune.[47] In this case he is illustrating the importance

of the *antiscia*. Scholars have identified the native as Ceionius Refus Albinus, who was Prefect of the City in 336–7 CE:

> The father of this native after two consecutive consulships was sent into exile, but the native himself was exiled for the crime of adultery and suddenly brought back from exile, was first chosen for the administration of Campania, then the consulship of Achaea, but afterwards was made proconsul of Africa and Prefect of Rome.
> Any man not knowing the theory of the *antiscia,* if he saw the Sun with Jupiter in the same degree in the fifth Place from the Ascendant—that is, in the house of Bona Fortuna—would have foretold a father fortunate, prosperous, powerful and so on, and the same thing for the native himself. Concerning his exile and the constant plots against him he would have been able to foretell nothing unless he turned his attention to the theory of the *antiscia*.

Firmicus goes on to explain each negative and positive event with the aid of the *antiscia,* and the man's life emerges as more dramatic in its reversals than that of the heroes of contemporary romances:

> And so the waxing Moon, attacked from all sides by the many influences of Mars, made this man, weakened in body, finally an exile. And if Jupiter, located in Pisces, had not been aspected in trine to the Ascendant, he would never have been freed from his exile; and if he had not been aspected in trine to the Moon in its exaltation…the native would have died a violent death … But what configuration caused that man to become an adulterer, this also I shall explain: Mars, located in Aquarius, sent an *antiscium* towards Scorpio; thus the *antiscium* of Mars found Venus located on the Descendant in the chart…in all these ways, therefore, through themselves and through their *antiscia* on the chief cardinal points of the nativity, Venus and Mars…attacked each other.

Finally the Moon rescues Albinus, and decrees the highest honours for him.

This is only an extended example of quite a common pattern. Here is someone born on 14 December 102, whose name is lost:

> This person began as deputy governor but falling into the governor's disfavour in his thirty-fourth year was condemned

> to the quarry…In the thirty-sixth year by the aid of greater [persons] he was released from confinement as disabled…In the thirty-ninth year his circumstances were upset through the former enmity and he was condemned to an oasis…In the fortieth year he lived precariously and fell ill. However his wife accompanying him affectionately comforted him and shared his possessions with him. And these are the prognostics I myself found.[48]

A similar example at a lower social level was a slave who became a citizen and obtained political office and honours, but then suffered a setback in his career.[49] A horoscope for 25 March 142 offers quite a detailed recent biography before moving on to some vague predictions. In his eighteenth year he went abroad with a distinguished woman because of friendship and esteem and for further intimacy and erotic passion'. But the woman died, 'and he himself, failing in his hope returned home with little profit'. In his nineteenth year 'he got help and gain but he had disagreements and mental troubles and enmities with relatives'. The next year he went abroad again because of a woman's friendship in the hope of profits, and was again disappointed when she died. He was friendly 'with a prominent and royal person from whom he expected the right to wear the wreath and archpriesthood. And this would undoubtedly have happened if Mars had not been in dominant aspect and operative.' In the climacteric year [the twenty-first?] he found 'illness and bloodshed and frustration of expectation, treachery of slaves, injuries, wants'. Later, matters improved. Valens predicts: 'There will be troubles, great expenses, or there will be independence resulting from preceding affairs or from some other income and the assistance of friends.'[50]

Some of these cameo lives are extremely short. There are a number of horoscopes of children who never reached adulthood, since this was obviously a major concern of clients who sought horoscopes at birth. Dorotheus devotes a chapter to the question of whether a child will live. Valens also cites the horoscope of a child born in 158, who suffered dangerous convulsions in the eighth and ninth months, eruptions and eczema especially in the twenty-seventh month, who fell into an animal snare (?) and suffered injuries, and then after more convulsions, died in the thirty-third month.[51]

Dorotheus offers horoscopes which sound less obviously retrospective and more closely bound to theory, more like the Old

Coptic horoscope in fact, though there is the odd piece of exact information which suggests an actual life:

> The native will be blessed with love from his parents…and moreover pain will reach him. In [the next] period he will increase his learning and culture and the like. Then [in the next period]…praise on account of his culture and good from his eloquence and the manifestation of his ways which are pleasing to people…Then…slowness in work and disease and distance from his land and grief and obstruction and difficulty …his mother will die in this period, but he will acquire goods …and he will marry a wife with a dowry, and a child will be born to him who will live a short while and die in the third year …Then…leadership and honour among groups of men, and his elevation among them. Because Saturn is in the twelfth degree, it indicates the last degree of his life, and he will live after the twelfth degree forty-eight nights.[52]

The proportion of women natives is small: only six of the papyri are definitely to be identified as concerning a female, while nineteen are definitely male. As for the literary horoscopes, Vettius Valens only interprets two women's horoscopes, both as comparisons in lawsuits concerning men. One appears as a pair to that of her brother, who had won a lawsuit against her over property and inheritance. Apparently she had been persuaded to go to court because she had influential support, but in the end her supporters let her down.[53] The other appears in connection with her husband: she won her lawsuit about an inheritance against him, but lost on appeal.[54]

ASTROLOGY IN EVERYDAY LIFE

Despite the low profile of women in the literary horoscopes, perhaps distorted by the clientele of Valens, the treatises do sometimes pay specific attention to women, as we have seen. In Juvenal's satirical portrait, women are singled out for attack because of their excessive addiction to astrology:

> Your wife, your Tanaquil,
> Is for ever consulting such folk. Why does her jaundice-ridden
> Mother take so long dying? When will she see off
> Her sister or her uncles ? (She made all enquiries
> About you some while back.) Will her present lover

Survive her? (What greater boon could she ask of the Gods?)
Yet she at least cannot tell what Saturn's gloomy
Conjunction portends, or under which constellation
Venus is most propitious; which months bring loss, which gain.
When you meet such a woman, clutching her well-thumbed
Almanacs like a string of amber worry-beads,
Keep very clear of her. She isn't shopping around
For expert advice; she's an expert herself, the sort
Who won't accompany her husband on an overseas posting–
Or even back home again—if the almanac forbids it.
When she wants to go out of town, a mile even, or less,
She computes a propitious time from her tables. If she rubs
One corner of her eye, and it itches, she must never
Put ointment on it without first consulting her horoscope; if
She is ill in bed, she will only take nourishment
At such times as Petosiris, the Egyptian, may recommend.[55]

In the stories preserved about the Regal period in Rome, Tanaquil was the legendary wife of Tarquinius Priscus, a king traditionally dated to the sixth century BCE; her skill in fortune-telling allowed her to foretell the future of Servius Tullius, his successor.

Though Juvenal's account is clearly to be taken with a large pinch of salt, nevertheless recognisable uses of astrology are visible in his account. His main interest is in elite women, but he shoots a broadside at the others in passing. Women of lower rank resort to the cheap fortune-tellers of various sorts, including astrologers, who ply their trade at the Circus for advice:

Here, by the dolphin-columns
And the public stands, old whores in their off-shoulder
Dresses and thin gold neck-chains come for advice–
Should they ditch the tavern-keeper? marry the rag-and-bone man?[56]

Juvenal's scorn for the lower orders is all too visible here. We have another account from an elite source which presents a *nouveau riche* aping his betters by indulging in astrological allusion. A long setpiece in Petronius' novel, *Satyricon,* records the dinner-party of an enormously rich ex-slave, Trimalchio, which mercilessly exposes his pretensions to culture. One of the many dishes was obviously designed to tease the brain as much as tickle the palette, and it has continued to puzzle scholars to the present day:

> Our applause was followed by a dish hardly as ample as we had expected. But its strangeness drew every eye upon it. It was a round plate with the twelve signs of the zodiac spaced around the edge, and on each the chef had put a morsel of food suited by nature to its symbol. Over the Ram, ram's head chick-peas; over the Bull, a bit of sirloin; on the Twins, pairs of kidneys and testicles; a crown on the Crab; on the Lion, an African fig; on the Virgin, the womb of a sow that had no litter; on the Balance, a pair of scales with a tart on one side and a honeycake on the other; over the Scorpion, a small salt-water fish; a hare on the Archer; a langouste over the Goat; a goose on the Water-carrier; and two mullets over the Fishes. In the centre was a fresh-cut sod of turf bearing a honeycomb.

The dish is opened up to show beneath Trimalchio's own portrayal of the cosmos. Later on in the meal, Trimalchio gives his own crude version of astrological theory:

> 'But I ask you, do you think I'm satisfied with that dish you saw on the stand?
>
> *Is this your experience of Ulysses?*
>
> Good enough; it does to know one's literature even when dining-out. May the bones of my old patron rest in peace, who would have me a man of the world. I can be shown nothing new, as that dish has proved. These heavens up there—they are inhabited by twelve gods and turn into as many figures. Then they become a Ram. And whoever is born under that sign has many flocks, many fleeces, a hard head besides, a brazen front and a sharp horn. The greater part of pedants and cavillers is born beneath this sign.'
>
> Praise for our witty astrologer, who goes on: 'Then the whole heavens become a miniature Bull. Under it are born those who kick against the pricks, cattlemen and those that find their own food. Under the Twins are born team-horses, randy men and such as have it both ways. Myself, I was born under the Crab. Therefore I stand on many feet and possess much in the sea and much on land, for your crab's at home both here and there. That's why I've placed nothing over it for some time, for fear of jeopardising my constellation.'

Trimalchio continues his list of the kinds of people born under different signs and concludes with a philosophical flourish:

> 'the Water-carrier sees taverners and fat-heads born; caterers and orators come under the Fishes. Thus the circle turns as a mill-stone, and at every moment some noxious thing is done, that either men die or men are born. As for the sod of turf in the middle and the honeycomb on it, I do nothing without a reason. Mother earth is in the middle, rounded like an egg, and like a honeycomb has all good things in herself.' 'Admirable!' we cried as one man, and raising our glasses to the ceiling we swore Hipparchus and Aratus were not to be classed with him.

Trimalchio also has a doorpost on which the Moon and the planets are depicted, presumably meant to allude to the role of the heavens in producing his glorious destiny.[57]

But if we have only sneering depictions of the uses of astrology among those of less than illustrious background, we can find some clues to what it offered the ordinary person in the treatises. Dorotheus offers a revealing discussion on horary astrology. There are chapters on buying land, forming a business partership, payment of debts, departure on a journey, exorcism and imprisonment. The typical questions of the average client emerge: which person will win that lawsuit? Will I get back the thing I lost? Which way did that runaway slave go? When should I have the operation? When is the best time to ask that favour? Some chapters, such as those on buying a ship, apply only to the richer client, but in most cases all stations in life are taken into account.

The long sections on marriage and slaves offer the most fascinating insights. The section on buying a slave envisages different types according to the sign in which the Moon was found at the purchase. He could be a good, patient and obedient worker, or lazy and unreliable. He might be a slanderer who conceals his disloyalty to the master, or well-educated and trained, but ill-tempered, and with a tendency to frivolous self-indulgence which causes stomach problems. The section on marriage, where the husband's point of view seems to be taken, runs through the various possibilities according to the time chosen. One side only might benefit, she might turn out to be a secret whore, they might waste each other's property, marriage might not be the answer while courtship offered more potential, she might conceive on the first night, the relationship could be like that of slave and owner, they might disagree about everything. 'Because agreement and love are necessary in a marriage, it is necessary to look at the indications

for that', advises the astrologer. In addition there is a whole chapter on 'the courtship of a woman, and what occurs between a wife and her husband when she quarrels and scolds and departs from her house publicly':

> If you want to know, if she returns to him, whether he will profit from her or will see joy and happiness, then look at the hour…If you find [Venus retrograde and other conditions], then it indicates that this woman will return to the house of her husband and will not cease being obedient to her husband from the day she returns, and she will not contradict him, but the husband will be blessed with profit and good and joy from her …If you find Venus direct in her motion, then it indicates that the woman who departs from her house will subjugate her husband so that for this reason estrangement…will come between the two of them, and it indicates that the man will repent after the separation, and it will be thus in the case of the woman who is courted…If you find Venus departing from the Sun's rays and it is western…she will not cease repenting till she returns.

We find examples of horary astrology among preserved horoscopes from the literature of the fifth century. They include one concerning distressing letters contrary to expectation, another on a ship which has not arrived in Smyrna from Alexandria, and a third 'concerning a small lion, whether he will be tamed'.[58] Enquiries about thieves seem to have been very common;[59] a typical passage concerns the lost linen of a slave-girl:

> [the fact] that the luminaries were in aspect to the Ascendant, [as was] also its ruler, indicated that the thief was in the household and not from outside; and that the Moon at Full Moon was in contact with Saturn at evening setting indicated that the thief was an old man. Since then Saturn was in the house of Mercury [it indicated] that the thief was an educated person and a rascal and frustrated in intercourse. Again the terms of the Moon showed that the stolen article belonged to a woman, and the ruler of the terms of the Moon and of the Ascendant, being in depression, showed that the loser was a humble person or slave and that the lost article was old and wretched because it was in evening phase.[60]

Astrologers must often have been used to aid gambling. A Byzantine

text, which certainly preserved much older ideas, reveals how astrologers used their art to predict the outcome of chariot-races, perhaps the most popular sport of the Empire. There is a variety of methods offered, creative variations on themes. One simple rule for predicting the winning team runs like this:

> You must know that the Moon aids the Greens, the Sun the Reds, Saturn and Venus the Blues. So, when the Sun meets Venus, if at that moment the Blues are launching out on the course, then they will win. When it meets Mars, it is the Greens who win, for Mars is their ally; and when Jupiter is found on a cardine, then infallibly the Blues will win, above all if the Moon is deprived of light.[61]

This text tells of a specialist in questions of the hippodrome and his amazing predictions. It is not clear whether he sold his knowledge; he is only mentioned as speaking with the teams. At least in this case he would have a one-in-three chance of getting it right. And since the answer depended on the exact time of the race, there was room for manoeuvre in retrospect. In fact, horary astrology in general was one of the least risky provinces of the astrologer, since it was less easy to be proved wrong. Very often, it was simply a question of selecting the best time for an enterprise. Even if the enterprise failed, it could always be argued that the time selected had been the best choice.

However, some enquiries did demand direct answers. There is an anecdote from the fifth century CE from a hostile Christian source which reveals how astrologers could hedge their bets in dealing with a straightforward question. The astrologer Leontius, who was consulted by all those who sought high office as prefects or functionaries, was once asked by a client about the sex of the child to which his wife would give birth:

> He replied, in giving him to believe that he calculated and conjectured from his silly notions, that she would have a boy. Then, going out of the house, he took the woman door-keeper on one side and said to her: 'The master of the house asked what his wife would have, and I said, a boy, not wanting to upset him in advance, since he wanted a boy. But to you I'm telling the truth (keep it quiet for the moment): the child to be born will certainly be a girl.' Thereupon he left. Later, his wife gave birth to a girl. His master was irritated that he had been

deceived and made Leontius come to him to convict him of lying. But the latter saved himself by the testimony of the door-keeper.

SUMMARY

The teller of the anecdote above has an axe to grind. But the tales of how individual diviners hoodwinked their gullible clients are not infrequent in our sources. Cicero recalled Cato's cynical remark, that he suspected that *haruspices* exchanged a secret smile whenever they met.[61] It would be too crude, however, to follow the isolated remarks of some ancient authors and proceed to dismiss all ancient astrologers as charlatans, from a position so far removed in time. To stop to ask how they managed the contradictory demands from them is not necessarily to question the astrologers' sincerity.

In the foregoing chapter we got a sense of the variety of roles astrology could play in the quotidian existence of a whole range of people. It is clear from the texts, though, that the imagined client is male, and at least of sufficient means to own slaves. Through the questions asked in the treatises we get a window on to common concerns. But in the first part of the chapter, we addressed the question of whether the texts' predictions offer a faithful reflection of the contemporary world. It became clear that the world of the astrologers is one of composite time and space, partly Hellenistic, partly Greco-Egyptian, partly Greco-Roman, partly Late Imperial (in the case of the later works), even partly Babylonian in the odd instance. Furthermore, it is a distorting mirror in some respects, since the *techne* reshapes the material it deals with, as was clear in looking at classifications of sexual behaviour and violent death.

7

REFLECTIONS AND RAMIFICATIONS

INTRODUCTION

In Chapter 1 we came across the links between attitudes towards astrology and different philosophical schools. In Chapter 5 the study of ideas about astral influence brought us into the realms of ancient physics as well as of ancient philosophy and religion. The way in which religion, philosophy and what we see as science overlapped became obvious. In this chapter, continuing the more synchronic investigation of the previous chapter, I am going to pursue some of the overlaps and links between astrology and other areas of knowledge, such as geography, meteorology, physiognomies, medicine, magic and cult theology.

The fact is that it is rather artificial to use such categorisations, especially as the Greek origins of the names of modern disciplines gives a misleading impression that we are talking of something similar to the educational curriculum today. In antiquity, theoretical knowledge was more of an amateur affair, being bound up with the elevated social status which guaranteed the leisure for study. In the ancient world there were none of the institutions which give definition and identity to different disciplines, so that there was more of a continuum of knowledge. The term *philosophia,* usually translated as philosophy, might cover just about all theoretical disciplines, including various types of religious knowledge.

CHOROGRAPHY: MUNDANE ASTROLOGY

Chorography was rather a sub-discipline of astrology than a discipline in its own right, though it could be seen to offer an over-arching framework of explanation which would dominate geography,

ethnography and even medicine as well as other parts of astrology. It corresponds to what is today called mundane astrology, being the study of the influence of the stars on cities or regions of the world. Ptolemy, who was the author of a treatise on geography, gives geographical astrology a prime role, devoting the whole of the second book to it:

> Since, then, prognostication by astronomical means is divided into two great and principal parts, and since the first and more universal is that which relates to whole races, countries and cities, which is called general *(catholicē)*,and the second and more specific is that which relates to individual men, which is called genethlialogical, we believe it fitting to treat first of the general division, because such matters are naturally swayed by greater and more powerful causes than the particular events. And since the particular always falls under the general, it would by all means be necessary for those who purpose an enquiry about a single individual long before to have comprehended the more general considerations.[1]

Ptolemy includes in this book on 'catholic' astrology, apart from the astrology of cities and regions, events which affect whole areas, whether they are disasters like war, famine, plague, earthquakes and floods, or normal meteorological variations and their effects on agriculture. Astro-meteorology is yet another sub-discipline, which could be seen as just a province of astronomy, which had investigated from the beginning the link between the stars and the seasons, and in particular the agricultural year. It is also one of the parts of astrology which became part of high literary culture from Aratus' poem onwards. There was however debate, as we have already seen in the writings of Geminus, (Chapter 2) about whether the stars were causes of meteorological events, or simply signs of the progress of the seasons, and thus of corresponding meteorological events.

Mundane astrology was in fact older than genethlialogy, as we saw in Chapter 1. In the earliest forms of astrology, predictions were made for different countries, and for kings as representatives of those countries. The early Greco-Roman divisions of areas of the world into zones with astral patrons were simple equivalents of older ideas about divine patrons. (Horoscopes of cities were however a later development, modelled on genethlialogy.) Manilius offers the oldest chorographic scheme to survive, which is a straightforward assignation of zodiac signs to zones. Here he refers to the worship of

signs by regions, and his justifications rely on myth or other analogical associations. Thus the legend of the Golden Fleece explains the area over which Aries presides. The golden ram carried Helle and Phrixus away to Colchis. The children's sacrifice had been demanded by the Delphic oracle, at the behest of their jealous stepmother Ino. Helle fell into the water and was drowned, and the Hellespont was named after her:

> The Ram, whose stars are allotted place in the middle of the firmament…in springtime halfway between the Crab and chilly Capricorn, claims for his influence the sea which he overcame himself, when after the girl had slipped off he bore her brother to the shore, and wept over the reduction of his burden and the relief to his back. He is also reverently worshipped by neighbouring Propontis, by the Syrian people, by loose-robed Persia, a nation hampered by its raiment, by the Nile, whose waters swell to reach the Crab, and by Egypt's land, then bidden to be flooded. The Bull holds the mountains of Scythia, powerful Asia, and the effeminate Arabs, whose realm is rich in woods. The Euxine sea, the shores of which curve in the shape of a Scythian bow, worships you, Phoebus [Apollo] in the person of the Twins.[2]

Gemini in Manilius has the Sun as its patron deity,[3] and Apollo is the Sun-god, as well as being the archer. There is clearly no established version, since Dorotheus not long afterwards comes up with a different list, and Paul of Alexandria from the Late Empire preserves a third system. They can be compared in the following table below (see Plate 12 for a map).

There were further subdivisions of the signs in later authors. Bardesanes, the Gnostic, mentions a division according to decans,[4] allowing a more detailed chorography. In Hephaestion of Thebes there is a division involving time as well as space. There are fortyeight different homes for eclipses, with the twelve hours of the day grouped into four lots of 3-hour units.[5] Each sign is matched with a different region for each 3-hour unit, perhaps following the Egyptian tradition of making the map of the sky, seen also as a giant clock, correspond to a map of the world.

Those ancient geographers and astronomers with no interest in mundane astrology estimated parallels of latitude corresponding to the length of the summer solstitial day, spaced at half-hourly intervals. Alternatively, the celestial divisions were mapped on to the Earth, so

	Manilius	*Dorotheus*	*Paul*
Aries	Hellespont, Propontis, Syria, Persia, Egypt	Babylon, Arabia	Persia
Taurus	Scythia, Asia, Arabia	Media, Arabia, Egypt	Babylonia
Gemini	Black Sea	Cappadocia, Perrhabia (?), Phoenicia	Cappadocia
Cancer	India, Ethiopia	Thrace, Ethiopia	Armenia
Leo	Phrygia, Bithynia, Cappadocia, Armenia, Macedonia	Greece, Phrygia, Pontus	Asia
Virgo	Rhodes, Caria, Doris, Ionia, Arcadia	Rhodes, Cyclades, Peloponnese	Greece, Ionia
Libra	Italy	Cyrene, Italy	Libya, Cyrenaica
Scorpio	Carthage, Libya, Cyrenaica, Sardinia, Mediterranean Isles	Carthage, Libya, Sicily	Italy
Sagittarius	Crete, Sicily	Gaul, Crete	Cilicia,Crete
Capricorn	Spain, Gaul, Germany	Cimmeria	Syria
Aquarius	Phoenicia, Cilicia, Lower Egypt	– –	Egypt
Pisces	Chaldaea, Mesopotamia, Parthia, Red Sea	–	Red Sea, India

that there were five or six zones, divided by the poles, the tropics and sometimes the equator, as in the case of the geographer Strabo. Astrologers divided the Earth into *climata,* according to the rising times. The work ascribed to Ptolemy, *On the Appearances of the Fixed Stars and a Collection of Prognostics,* has five *climata,* with the extremes at Syene to Berenice on the one hand, and Aquileia to Vienne on the other. Ptolemy's *Almagest* has seven, from southern Egypt to north of the Black Sea. There are a variety of ways of distributing the zones or *climata* between the planets.[6]

However, it was the system in Ptolemy's *Tetrabiblos* which triumphed. It was the most complicated, but it offered explanations of the physical appearance and customs of different peoples. In doing so it moved into the province of the ethnographers, those who described the peoples of the world in accounts they claimed were derived from first-hand experience. Racial stereotypes from such 'travel-writers' had passed into the common stock of knowledge. There was a history from the Hippocratic writers onwards of a

medical interest in climatological influence on the constitution, but it was the physiognomists above all who discussed the influence of the climate on customs and behaviour. These were the experts on judging the character from the physique.

Ptolemy's initial division corresponds to that of the most famous physiognomical treatise, written by Polemo of Laodicea in the first half of the second century CE. Unfortunately, only the Arabic translation of this has survived, so that some of the material has probably been altered in order to conform with the new geographical context. Nevertheless, comparison is possible. In Ptolemy's version,[7] those who live under the Southern parallels, from the equator to the Tropic of Capricorn, since they are burned by having the Sun overhead, have black skins and thick, woolly hair. They are shrunken in stature, hot by nature and have savage habits, because they are permanently oppressed by the heat. The animals and plants of this area are similarly the result of baking heat. The people are known generally as Ethiopians. In Polemo's treatise, under the heading 'On the southern type', he describes them as black, with black, curly hair, narrow ankles, leaden-coloured eyes, and thin flesh. Accordingly they are generous, quick-witted, with good memories, and they are pleasure-seeking, but they are continual liars, greedy and inclined to steal.[8]

In the *Tetrabiblos* those living under more northern parallels, with the Bears over their heads, as they are far from the zodiac and the Sun's heat, are subject to cold and moisture, whose nourishment is not dried up by heat. So they are fair-complexioned, straight-haired, tall and well-nourished, and rather cold by nature. Their habits are savage too, because the places where they live are continually cold. The plants there grow tall, and the animals are wild. The people are known generally as Scythians. Polemo tells us in his chapter 'On the northern type' that the people are tall, fair-complexioned, with red hair and grey-blue eyes. They are rough, with thick thighs, plump bodies, soft flesh and large stomachs. As to their characters, they are irascible, quick in argument, and impetuous. They are incapable of dissembling and not very quick on the uptake.

The point of this antithesis in both authors is of course to point up the golden mean. The temperate zone is where the best people come from, like themselves. In Ptolemy those in the zone between the summer tropics and the Bears enjoy equable air-temperature, which does not vary violently between hot and cold. This makes them of medium colouring and of moderate stature. Furthermore it

gives them an even temper, a tendency to group together (in cities), and makes them civilised in their habits. Polemo simply restates the logic: as the characteristics of North and South are opposite, the physiognomist should judge the characters of the people accordingly, and use the same principle regarding those in the middle. He proceeds to discuss East and West before coming to the pure Greek, a category sufficiently restricted to exclude the Argive or Corinthian. As he returns to the topic of bodily signs in general, he notes that a black skin indicates timidity and long trouble and sorrow, citing Abyssinians, Zingae (?) and Egyptians. In passing he notes that there is a region between Thrace and Constantinople where the natives' eyes roll and flicker. As for the pure Greek, he is:

> of moderate stature and upright, of attractive face, with a mixed red and white complexion, quite fleshy, with medium-sized hands and elbows. He is active, a quick learner, with a head neither big nor small, with thickness and fortitude in the neck, soft hair, even when curly, not woolly (?), a square face, thin lips, a straight moderately-sized nose, moist, very mobile and bright brown (?) eyes.[9]

Ptolemy too subdivides the peoples of the central region: those further south are shrewd, inventive and more versed in religious and astrological matters, because their zenith is closer to the planets, while those further east are more masculine, vigorous and open, because of the Sun's influence. The region is diurnal, masculine and right-handed. The west is associated with the Moon, and so the people are softer, more secretive and more feminine.[10] Of course there are further distinctions according to the particular situation, and there are individual exceptions. Polemo too admits that you can find sober Asiatics and quiet Scythians.[11]

But Ptolemy's system is far more complex. He starts anew after this first three-fold division, and divides the world into quarters, each ruled by a triplicity of zodiac signs.[12] The north-west quarter includes Celtic Gaul, bounded in the west by the Straits of Gibraltar, the south-east includes the southern part of Greater Asia, including India and Mesopotamia. The north-east is called Scythia, and reaches south-west Russia (Sauromatica) and China (Serica). The south-west is called Libya and covers North Africa. From here onwards, the discussion is mainly of ethnic characters. In some cases common stereotypes are operative: the Persians are portrayed as being luxurious and effeminate, the inhabitants of Judaea as atheists and

the Britons as fierce, headstrong and bestial, while the Greeks are noble, independent leaders, democratic freedom-lovers, highly cultured, articulate and learned. Ptolemy is creative in finding astrological justifications: the Amazons are explained by the influence of the Moon's oriental and masculine aspect.

ASTROLOGY AND MEDICINE

The theories of the physiognomists came partly within the province of physicians. Galen, the second-century CE doctor, whose version of ancient medical theory was to become the model from the Middle Ages onwards, offered a humoural model to explain the phenomena discussed by physiognomists and astrologers. In his treatise *On the Temperaments,* he discusses the different blends of the humours (the bodily fluids) in different parts of the body. He says that the physiognomists are taught to look at different parts for different signs: they know that if someone has a hairy chest he is spirited, or that if he has hairy legs he is lustful. However, they fail to explore the causes, saying only that these relationships exist because the lion (with its furry chest) is spirited or the goat (with its hairy legs) is lustful. The real reason, Galen explains, is that there is more heat in these areas, and the hair on them shows this.[13] In his work *On the Doctrines of Hippocrates and Plato,* he cites the observation that men and animals that are broad-chested are all by nature more given to anger, while those with wide hips, who are colder, are more cowardly, and refers to the role of climate in affecting the body.[14] The question of angry, rash types with hairy chests resurfaces in a work attributed to Galen (though it may well not be his)—*The Medical Art*—where heat is again used to explain the phenomenon.[15] In the treatise on astrological medicine, the *Prognostics from the [Time of the Patient's] taking to Bed,* the connections are made explicit:

> Astrology is the foreseeing part of their [i.e. the physicians'] art, and if not all, but at least most of them have accepted this part of astrology as part of medicine…Hippocrates said that [any physician's] mind strays into darkness, who has not used physiognomy. But the physiognomical part of astrology is its major part.[16]

This work is one of many of late date which must have drawn on earlier specialist treatises on astrological medicine, or iatromathematics, as it was known. But most astrological treatises

have at least one section devoted to the subject. Ptolemy, who uses medicine as a model to justify astrology, depicting them both as conjectural *technai,* also proudly claims that the Egyptians, who have most advanced the art of astrology, have entirely united medicine and astrological prediction.[17] We saw in Chapter 1 that the origins of the networks of correspondences between astrological entities, stones and plants may have been in Egyptian medicine, famed already in the age of Homer, and that they were probably elaborated in Hermetic writings.

Though the *Prognostic from [the Time of the Patient's] taking to Bed* is a late work, we find a chapter on the same subject in Dorotheus' fifth book on horary astrology, which is attributed to one Quitrinus, probably a Greek called Cedrenus, mentioned elsewhere as an astrological author:[18]

> Whoever desires to know the condition of the patient [at] the beginning of when he is ill, how long he will endure [it], let him look at the Ascendant and the Moon and the lord of the Ascendant and the lord of the Moon's house and the Moon's conjoining with a star…and the Moon's dodecatemory. If the lord of the Moon and the lord of the Ascendant are from among the benefics, or the benefics aspect the Ascendant and the Moon and the Moon's dodecatemory, or the Moon conjoins with the benefics, then if the patient became ill at that hour and it is the beginning of his illness, it indicates recovery from his illness.

Later, consideration is given to the sign in which the Moon or the Ascendant was at the beginning. If it is a tropical sign, recovery will come, but sometimes also a relapse. The Moon is clearly the chief actor here. It is according to the influences on the Moon that the patient's condition changes:

> The patient is released as long as the Moon remains in a place and term away from death, as, when it reaches the benefics or when they aspect it, his pain is lightened and he is helped from agony.

The days on which a crisis of the patient is best are according to the aspects of the Moon: after seven days from the New Moon, after nine days, after fourteen days, after eighteen, after twenty-one and after twenty-eight, with the next New Moon. If there are good influences on these days, then the patient will take a turn for the better, but if bad, then the pain will be worse. The really critical days

are when the Moon has moved 10 degrees or forty days from the day when the illness began.

Here the astrologers have come up with their own version of the doctrine of 'critical days' which had been important to medicine since at least the time of Hippocrates. Prognosis was one of the most important parts of ancient medicine, and much medical writing was devoted to the question of the days on which the disease would take a turn for the worse or for the better. For longer diseases there were also critical months and even years. Interestingly, Galen, who ridicules another writer for using 'the sacred herbs of the daemons and decans' in a different context,[19] recommends consideration of Moon-phases throughout the third book of his work *On Critical Days,* and also refers to Moon-phases in relation to the zodiac. He mentions the importance of the Moon's position at 'the beginning of anything', and speaks of benefic and malefic planets and their effects in relation to the influential planets at birth. He says that he is following 'Egyptian astrologers', and claims that he has found their observations on the Moon to be true.[20]

Galen takes care in this work to refute the application of numbersymbolism to judgement on the course of a disease.[21] Here he could be referring to two different methods found in the corpus of astrological medicine. The first is the theory of climacterics. These were hours, days, months and years regarded as particularly dangerous, usually multiples of seven or nine, in the most popular version. The emperor Augustus knew this theory, when he wrote to his grandson:

> Greetings, my dear Gaius, my dearest little donkey…especially on days like today my eyes are eager for my Gaius, and wherever you have been today, I hope you have celebrated my sixty-fourth birthday in health and happiness, For you see, I have passed the climacteric common to all old men, the sixtythird year.[22]

This idea was common enough not even to have specifically astrological associations. Astrologers soon produced a more sophisticated theory of climacterics, in which transits of important planets in the natal chart determined climacterics.[23] Thus they were individualised. Pliny the Younger, in a satirical portrait of an enemy from the early second century CE, presents him as a legacy-hunter making good use of the theory of climacterics. He speaks false words of comfort to the dying old lady: 'You will have a climacteric period,

but you'll come out of it. So that you are more convinced, I will go and consult a *haruspex* I have often put to the test.'

So he offers a sacrifice, assures her that the entrails are in accord with the indications of the stars, and gets his legacy.[24] We also hear of the use of climacterics in the case of an orator called Lampridius of fifth-century CE Gaul. According to his friend, the Bishop Sidonius Apollinaris, African astrologers told him the climacteric year, day and month. Their prediction of a bloody death was fulfilled when he was killed by his slaves.[25]

Obviously, there was a similarity to the doctors' critical days, and astrologers grafted the first on to the second eventually. However, climacterics threatened dangers of all types, not only relating to illness, as we saw in the case of Lampridius, and there were no climacterics which portended good, unlike critical days. Vettius Valens has series of climacterics relating to the body, the soul, fortune, enterprises and so on.[26]

The second kind of number-symbolism was found in systems based on the mystical properties of names converted into numbers. (Greek numbers were expressed by letters of the alphabet.) By this means divination of life or death could be made. For instance, in a letter purporting to be written by Pythagoras to Telauges, a calculation is made according to the idea that the sick person is engaged in a struggle against the first day of his illness. The day is given a number which is a sum of the letters in the word describing which number it is; the patient's name is dealt with in the same way. After various calculations, one of the remaining figures would win, according to whether both were odd or even, or one of each.[27] This is the purely arithmetical basis for systems developed by astrologers, in which the day in the lunar month was involved in the calculations, and where it was worked out on a diagram. The 'Sphere of Democritus' displayed a rectangular table of the days of the month arranged in three colours, mixed up in a particular order:

> Democritus' 'sphere': prognostic of life and death. Find out under which day of the Moon the sick man took to his bed. Add his name from birth to the day of the month and divide by thirty. Look up on the 'sphere' the quotient: if the number falls in the upper part, he will live. If in the lower part, he will die.[28]

There is another version ascribed to Petosiris, in which twenty-nine, presumably as a more accurate estimate of the mean lunar month, is

used as divisor rather than thirty.[29] In fact, it could be used for predicting the result of other contests, the issue of a battle, the result of a lawsuit, or of a gladiatorial contest. These systems, though they are attributed to founders of astrology, are probably quite late in origin.

Apart from climacterics there are good and bad days on which to undertake medical activity. Here we are simply in the province of normal horary astrology. Thus Dorotheus offers a chapter on when to take a medicine for diarrhoea:

> If you want to commence drinking the medicine for diarrhoea or something that eases the stomach, or an enema…then the commencement of it is best…when the Moon is in Libra or Scorpio as these places compress and are called the 'region of lowness', and it is the best…when the benefics aspect the Moon.[30]

There are also chapters on the times to avoid and the best times to bleed, or to treat by cupping, or to cut with a knife or scalpel, and to treat an eye infection.[31] Pliny the Elder, writing in the latter half of the first century CE, tells us about Crinas, a doctor from Marseilles, who observed the hours and gave food according to ephemerides giving the positions of the planets. This combination of astrology and medicine was obviously very popular for he left an immense fortune, having already spent a similar fortune on fortifying his own city and that of others.[32] We also find a doctor proclaiming his astrological ability on his tombstone.[33]

But none of these efforts to choose the right moment involved specifically astrological medicine. However, we do find astrological diagnosis as well as prognosis and timing of treatment. Taking Dorotheus' excerpts from Cedrenus, for instance:

> If the lord of the illness is Mars, then he got his illness from heat. From Saturn it indicates [that] the disease will remain a long time in its owner, and there has reached him from it consumption and coldness and swelling.[34]

Firmicus also documents the astrological causes of physical infirmities, particularly as regards the eyesight, in one chapter.[35] Diagnosis in a more general sense was provided by the various doctrines of *melothesia,* which assigned parts of the body to astrological entities. This idea was well enough known to be mentioned by Pliny. There was planetary *melothesia* in some

authors,[36] but perhaps the simplest was the form linking zodiac signs to parts, as in Manilius:

> The Ram, as chieftain of them all is allotted the head, and the Bull receives as of his estate the handsome neck; evenly bestowed, the arms to shoulders joined are accounted to the Twins; the breast is put down to the Crab, the realm of the sides and the shoulder-blades are the Lion's, the belly comes down to the Maid as her rightful lot; the Balance governs the loins, and Scorpion takes pleasure in the groin; the thighs hie to the Centaur, Capricorn is tyrant to both knees, while the pouring Waterman has the lordship of the shanks, and over the feet the Fishes claim jurisdiction.[37]

Firmicus remarks that Nechepso devoted much attention to finding the Place, probably meaning Lot, of afflictions and illnesses.[38] But he was not content with finding the astrological indications regarding illness; he also offered treatment.

> Nechepso…by means of the decans predicted all illnesses and afflictions; he knew which decan produced which illness and which decans were stronger than others. From their different nature and power he discovered the cure for all illnesses, because one nature is often overcome by another, and one god by another.[39]

We hear from a Hermetic text, probably of the first century CE, attributed to Thessalus in the Latin version and to Harpocration in the Greek, that Nechepso wrote about the treatment of the whole body, and of each illness, by sign, by means of stones and plants.[40] In this text we find a section on the plants linked to the zodiac signs, discussions of seven plants associated with the planets, and of the decanic plants and those associated with the fifteen fixed stars.[41] In Firmicus' account, at any rate, the model appears to be of astral influences causing illness and needing to be opposed by contrary powers. Thus stones, or plants, in sympathy with opposite astral influences, are presumably brought to bear. But in ancient medicine, the principle that opposites cure opposites is matched by another principle which suggests that like cures like. Thus in the case of astrological medicine, if it is Mars which is responsible for the disease, it is remedies based on materials sympathetic to Mars which are needed. In a Hermetic treatise, it is imagined that the star causes disease because it has suffered negative influences itself.[42] Thus it

would make sense to see the star as needing strengthening by sympathetic energy. In the *Sacred Book of Hermes Addressed to Asclepius,* the medical recipes clearly envisage strengthening the decan responsible for causing disease in a particular part of the body: it promises that the reader can gain the benevolence of each decan by engraving it on a stone with its name:

> Leo, first decan: its name is *Pepisoth* and it has the form of a woman holding in her right hand a thunderbolt, in her left a small bottle. It has wings from the middle of its body to his feet and a crown on its head. It rules the hands. Engrave it on the stone called heliotrope, and set the plant libanotis underneath. Fix it inside any piece of jewellery and wear it. Abstain from boar's flesh.[43]

One set of decan-figures is visible in Figure 23.

And there is a further role for astrology in determining the moment and the place to obtain the plant or stone used. A Hermetic text tells of the necessity of getting these right, giving the examples of hemlock, a plant sympathetic with Mars. That of Italy is poisonous, because Italy is under the patronage of Scorpio, the house of Mars, whereas in Crete, where the influence of Mars is attenuated by Sagittarius, it is food. (Socrates might not have agreed!) As for timing, it makes sense to gather a plant when its planetary patron is in its exaltation, on the day of the week and at the hour belonging to it.[44] Even Galen, who was so rude about another herbalist's use of Hermetic treatises, in one of his texts on herbs, mentions without objection his teacher's medicine against rabies, concocted 'after the rise of the Dogstar when the sun had moved into Leo and the Moon had reached its eighteenth day'.[45] There are a number of Hermetic texts concerning 'astro-botany' which are late but reflect older material.[46]

ASTROLOGY AND MAGIC

Already, with the pharmacopoeia, we are straying into the field of magic, which always lay close to medicine. In the magical papyri, mainly from the second century BCE to the fifth century CE, our chief primary sources for magic, we find reference to correspondences. For instance, the seven flowers of the planets, and seven precious stones representing the planets, are mentioned.[47] There are presumably other analogical procedures which determine timing.

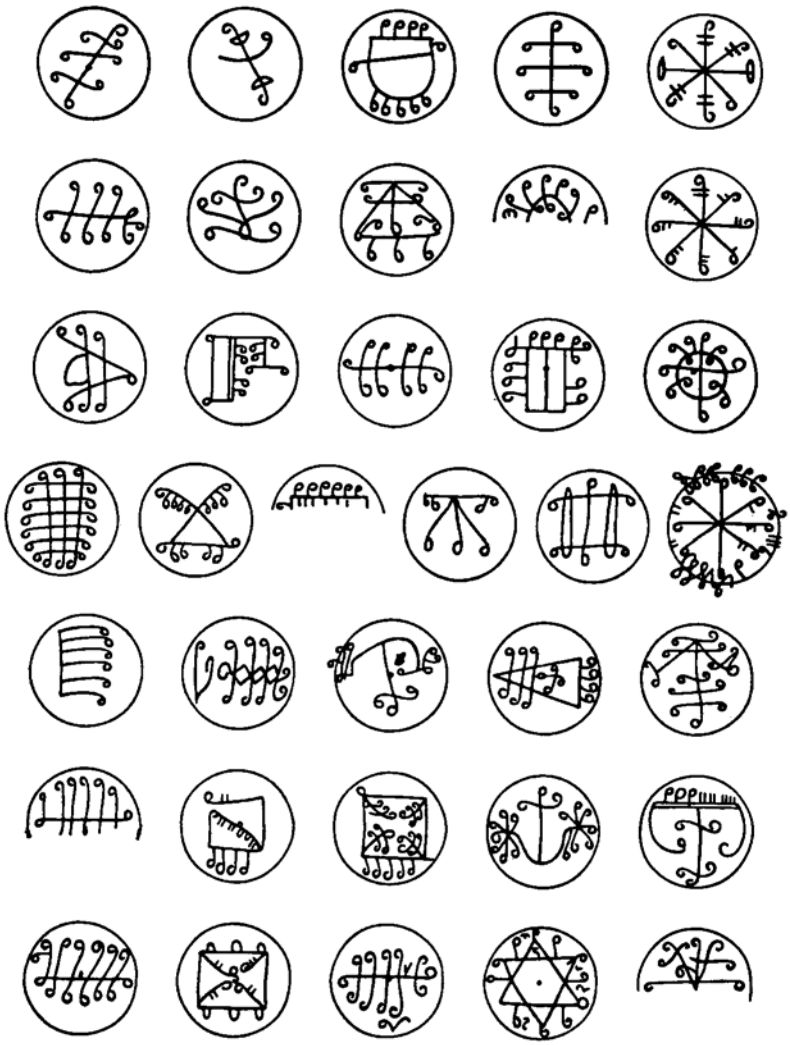

Figure 23 Figures of the thirty-six decans from a manuscript.

Here are the instructions for healing gout by a magical amulet, in a papyrus in the Egyptian vernacular Demotic:

> Another amulet for the foot of the gouty man: You should write these names on a strip of silver or tin. You should put it on a deerskin and bind it to the foot of the man named, on his two feet: 'THEMBARATHEM OUREMBRENOUTIPE / AIOXTHOU SEMMARATHEMOU NAIIOU, let NN whom NN bore, recover from every pain which is in his knees and two feet.' You do it when the Moon is in Leo.[48]

The precise way in which the analogy works is uncertain. Perhaps Leo controls the feet in the *melothesia* system of the writer. In the following recipe, more detailed requirements for timing have symbolic associations of obvious relevance.

> A contraceptive, the only one in the world: Take as many bittervetch seeds as you want for the number of years you want to remain sterile. Steep them in the menses of a menstruating woman. Let her steep them in her own genitals. And take a frog that is alive and throw the bittervetch seeds into its mouth so that the frog swallows them, and release the frog alive at the place where you captured him. And take a seed of henbane, steep it in mare's milk; and take the nasal mucus of an ox, with seeds of barley, put these into a [piece of] leather skin made from a fawn and on the outside bind it up with mulehide skin, /and attach it as an amulet during the waning of the Moon [which is] in a female sign of the zodiac on a day of Saturn or Mercury. Mix in with the barley grains cerumen from the ear of a mule.[49]

The waning of the Moon is associated with the decline of fertility, as we saw in Chapter 4, and the choice of a female sign of the zodiac can be accounted for on the grounds that we are dealing with gynaecology. Saturn's coldness and dryness, or indeed even his age, can be seen as opposed to fertility, and Mercury may simply be here as representing instability. In another Demotic spell to call up a god, it is stipulated that it should be done opposite the Great Bear (the Plough) on the third day of the lunar month.[50]

In such cases the astrology only enters into the timing of the making of the amulet. Gems are often found with a combination of magical words or symbols with astrological images, and it may be that here we are dealing with amulets, as instructions in the spells sometimes

stipulate engraving.[51] Where there is a single zodiac sign, we could see it as simply the birth sign of the wearer, worn as a lucky charm, but since some signs are commoner than others, it may be that these are worn for healing purposes, or as phylacteries, to ward off disease, chosen according to some system of *melothesia*. In the case of depictions of the Scorpion, clearly a common choice, it may be the association with the genitals in a common *melothesia* which provides the clue. A phylactery worn to protect the genitals aimed to ward off the evil eye, which was thought to threaten the penis in particular.[52] (Little attention was paid to the female genitals in this context.) On a yellow-brown jasper, there is found a ten-footed Scorpion, surrounded by the Ram and the Bull, the Balance, the Sun and the Moon. On the reverse are a palm and a sign for a chrism, and the legend, 'Keep away from the unjust man and fear will not come near you.' This could be a condensed horoscope (see Plate 13a).[53] Another jasper, red in this case, shows a woman's head with a crescent on it, turned to a Crab with ten feet, to the Crab's right five lines: ns/as/ne/iat/nn. It seems to be astrological, as Cancer is the Moon's house (see Plate 13b).[54] A grey agate has the inscriptions Barkaba and lao, the version of the Jewish name for God found often in the papyri together with seven stars and two arrows, perhaps referring to Sagittarius. On the reverse, the word Adone is between a star and a crescent, over two arrows, with the name Abrasas, a version of the solar magical deity whose name is 365 in numerical form (see Plate 13c).[55]

There are two versions of a magical papyrus which offer a simple horary astrological scheme, setting out the appropriate times for different sorts of spells:

> Orbit of the Moon: Moon/in Virgo: anything is rendered obtainable. In Libra: necromancy. In Scorpio: anything inflicting evil. In Sagittarius, an invocation or incantations/to the sun and moon. In Capricorn: say whatever you wish for best results. In Aquarius: for a love charm. Pisces: for foreknowledge. /In Aries: fire divination or love charm. In Taurus: incantation to a lamp. Gemini: spell for winning favour. In Cancer: phylacteries. Leo: rings or binding spells.[56]

But astrological entities recur as deities in the spells too. Most important are the Sun and Moon, which are frequently invoked. For instance, to summon the Moon, after keeping pure for three days, and waiting for the fifteenth day, you need to put on green and black

eye-paint, and stand on your roof, reciting a spell seven or nine times until she appears.[57] The decans are also often addressed by their names, which are Egyptian in origin.[58] Instructions are given to inscribe all the signs of the zodiac with cinnabar, together with their magical names, on each leaf of a laurel-branch, to be slept on as part of the procedure for divining from a dream.[59] One long initiation ritual contains two sets of instructions, supposedly from the 'eighth book of Moses', for finding which god—i.e. which of the seven planets—is ruler of the celestial pole. There is a simple table by which the planet ruling the day in the Greek reckoning can be matched to another planet in the list entitled 'The Seven-Zoned', which gives the answer. Here astrological methods seem to be bypassed in favour of magical ones, and this is also the case with instructions for calling up a god in order to cast an horary horoscope. Once the god has arrived:

> He speaks with you truthfully with his mouth opposite your mouth concerning anything you wish. When he has finished he will go away again. You place a tablet for reading the hours upon the bricks, and you place the stars upon it, and you write your business on a new roll of papyrus, and you place it on a papyrus. It sends your stars to you whether they are favourable for your business.[60]

We saw in Chapter 3 that by the time of the Christian Empire, divination and magic had been assimilated, and were treated as one and the same crime. It was the Christian Tertullian in the second century who said: 'We know that magic and astrology are closely related.'[61] In fact, magic cannibalised astrology in the same way as it cannibalised religions, including Christianity. But there were reasons for those interested in astrology to turn to magic if they were not inclined to accept the predictions offered. The claims that the individual destiny was decided at birth did not stop those who saw the stars which were authors of their fates as being manipulable. This is clearest in the instructions for calling up an unspecified god:

> Now when the god comes in do not stare at his face, but look at his feet while beseeching him, as written above, and giving thanks that he did not treat you contemptuously, but you were thought worthy of the things about to be said to you for the correction of your life. You, then, ask, 'Master, what is fated for me?' And he will tell you even about your star, and what kind of daemon you have, and your horoscope and where you

> may live and where you will die. And if you hear something bad, do not cry out or weep, but ask that he may wash it off or circumvent it, for this god can do everything. Therefore, when you begin questioning, thank him for having heard you and not overlooked you.[62]

Here we have exactly the opposite of the Stoical resignation held up as an ideal in Vettius Valens, for instance, where the message would be 'Do not cry out or weep, because you cannot change anything.' According to the account of Proclus, the fifth-century CE Neoplatonist, Petosiris was a model to astrologers in attempting to control the goddess Necessity.[63] But then Proclus had an interest in theurgy, a version of magic involving calling up the gods. Later on in the same text as the one cited above, the all-powerful god is commanded rather than being humbly worshipped. A whole cosmology is envisaged, in which astral forces are subject to this god, and thus ultimately to the magician:

> Come to me, you…ruler of all, who breathed spirit into men for life, whose is the hidden and unspeakable name…at whose name even the daemons, when hearing, are terrified, whose is the Sun…and the Moon…—they are unwearied eyes/ shining in the pupils of men's eyes—of whom heaven is head, ether body, earth feet, and the environment water, the *Agathos* (Good) *Daimōn*…Yours is the eternal processional way/in which your seven-lettered name is established for the harmony of the seven sounds [of the planets] which utter their voices according to the twenty-eight forms of the Moon…Yours are the beneficent effluxes of the stars, the daemons, and Fortunes and Fates, by whom is given wealth, good old age, good children, good luck, a good burial…Come into my mind and my understanding for all the time of my life and accomplish for me all the desires of my soul. For you are I, and I, you. Whatever I say must happen, for I have your name as a unique phylactery in my heart…Also be with me always for good…yourself immune to magic, giving me health no magic can harm, well-being, prosperity, glory, victory, power, sex appeal.

This is something like the Gnostic cosmos. However, instead of initiation into the true Gnosis, freeing the devotee from the negative influences of the stars, in this case the magician takes control of the divine power which controls all the positive influences of the stars,

in order to enjoy them. Magic, like Gnostic or Hermetic cosmologies, is yet another creative use of astrology. A few ingredients are stirred into a complex mixture, which includes an amalgam of Greek, Jewish and Egyptian religion. The elements change in the new context, so that the meaning they have in the astrological milieu is eclipsed. We find a lunar spell associated with the goddess Aphrodite-Ourania, Heavenly Venus in Greek, but in origin probably the Phoenician Astarte, and subsequently the Punic Tinnit, and finally the Dea Caelestis (heavenly goddess) in Rome. To add to the variety of associations, it is Aphrodite-Selene who is addressed, a being who combines the Greek names for Venus and the Moon, but in the Egyptian context is the goddess Hathor. Here she represents the constellation of the Bear. But she presides over the same matters as the astrological Venus or the Greco-Roman goddess, as the spell reveals:

> I call on you, Mistress of the entire world, ruler of the entire cosmic system, greatly powerful goddess, gracious [daemon], lady of night, who travel through the air, PHEROPHORE ANATHRA…OUTHRA. Heed your sacred symbols and give a whirring sound, [and] give a sacred angel or a holy assistant who serves/this very night, in this very hour, PROKYNE BAUBO PHOBEIOUS MEE, and order the angel to go off to her, NN, to draw her by the hair, by her feet; may she, in fear, seeing phantoms, sleepless because of her passion for me and her love for me, NN, come to my bedroom.[64]

ASTROLOGY AND CULT THEOLOGY: THE UNCONQUERED SUNS

Mithraism

The Great Magical Papyrus of Paris claims to write down the mysteries which the great god Helios (Sun) Mithras ordered to be revealed through his archangel.[65] Though it is clearly not a liturgy of the cult, it now seems likely that it does incorporate some ideas from Mithraic cult into the usual magical amalgam. It does offer some clues as to the cosmology of the cult, which was one of several cults centred on the Sun in antiquity. We have already seen the links between astrology and some religious sects. In this final section, I will be examining cults actually centred on the Sun, and, to a lesser

degree, on the Moon. As will become obvious, Mithraism was much more complicated than the various state cults of the Sun, and seems to share some cosmological features with Gnosticism and Neoplatonism. Recent scholarship has suggested that astrology and astronomy offer keys to the Mithraic mystery.

It is because Mithraism was a mystery-cult that we have no direct explication of its theology or liturgy. There are a few literary sources which give hints, usually from non-initiates, but the main sources of evidence are the archaeological remains of the temples, or Mithraea, which were subterranean buildings, and have therefore often preserved the sculptures, mosaics and paintings presenting the iconography of the cult (see Plate 14). There are also inscriptions which reveal the membership. The social milieux to which Mithraism appealed particularly included petty bureaucrats, slaves and exslaves, and especially the ranks of the army, centurions and others ranking just below them.[66] Women were excluded. Mithraea are clustered at the fringes of the Empire, but also in the centre.

The cult was seen as coming from the East originally, and the god Mithras takes his name from the Iranian god Mithra, but the current consensus is that the Western cult which became so popular under the Roman Empire is not to be explained by Eastern antecedents.

In the archaeological remains, astral symbolism is prominent, with the zodiac signs in a circle or in niches, the planets in the form of seven busts or as seven stars on Mithras' cloak, and the Sun and the Moon often personified. The winds and the seasons are also represented, and thus the most dismissive account of the role of the astral symbolism was that the zodiac and planets simply represented the calendar, as seems to be the case with non-Mithraic monuments representing the planets, such as the Pantheon, the various Septizonia, and the Athenian Tower of the Winds. However, there are literary sources which hint at more. The third-century Neoplatonist Porphyry commented that the Mithraea were made to look like caves because the cave 'conveys an image of the cosmos'. A dedication of one initiate draws attention to the expertise of his grandfather, the founder of the Mithraeum of San Silvestro in Capite, 'in the stars and the heavens'.[67] A further comment of Porphyry's suggests that astrology proper is involved: 'The equinoctial region they assigned to Mithras as an appropriate seat. And for this reason he bears the sword of Aries, the sign of Mars; he also rides on a bull, Taurus being assigned to Venus.'[68]

Aries is the house of Mars and Venus the house of Taurus in astrological theory. But we have to remember that Porphyry could be importing his own explanations here.

Let us first consider the evidence for a role of astrological theory in the cult ideology, as revealed in the visual evidence. St Jerome revealed the seven grades of initiation in Mithraism: from the bottom, Crow, Gryphon, Soldier, Lion, Persian, Sun-runner and Father.[69] From the evidence of the mosaic pavement of a Mithraeum in Ostia and grafitti from another Mithraeum at Santa Prisca, we can see that these grades each had a planet in association: respectively, Mercury, Venus, Mars, Jupiter, Moon, Sun and Saturn.[70] This Mithraic order was probably generated by conflating the order of the days of the week with the standard 'Chaldaean' order of the planets by distance.[71] Origen, the third-century church father, refers to the ladder with seven gates, with an eighth gate at the top, in the Mithraic mysteries. It seems likely that he refers to the grade-structure.[72] Unlike the seven gates or spheres of the Gnostics, what we have in Mithraism is not the ascent of the soul after death, but in life, as a result of the stages of initiation. The particular order selected in Mithraism represented a map for the initiates which drew on familiar categories but offered a new synthesis.[73]

Technical aspects of astrology were some of the elements in the new synthesis: according to one scholar there is evidence that decans, planetary houses and exaltations were involved.[74] In the relief from a Mithraeum of Danubian provenance, until recently in Bologna, we find the planets in the order of the days of the week.[75] They are set in an arc above the depiction of Mithras killing a bull (the tauroctony), a scene found in all Mithraea. The Sun and Moon are always set in the upper left- and right-hand corners of the tauroctony scene, and here the planets are ranged between them:

Sun Saturn Venus Jupiter Mercury Mars Moon

Thus, as days of the week, they must be read from left to right. Now if we consider the signs to which the central decan of each planet are allocated, we find that the signs from Scorpio to Taurus are represented:

Scorpio Libra Virgo Leo Cancer Gemini Taurus

This relief is not unique in placing a bull's head by one of the twin torchbearers always on either side of the tauroctony scene, and a

scorpion by the other. Here are Taurus and Scorpio again, and we shall return to the role of the half of the zodiac defined by them. At any rate here it seems that it is the decans which offer the means of deciphering the zodiac signs hidden behind the planets. Furthermore, it is only in the central planet that the Bologna relief corresponds to the grade order, with Jupiter. Now the central decan of Jupiter belongs to Leo, and the corresponding grade is the Lion. A further possibility of the Mithraic use of the decans concerns the lion-headed god, an important figure in Mithraic scenes. It has been interpreted as representing the first decan of Leo.[76]

While the planets reveal the signs to the astrological decoder in the Bologna relief, the signs can be shown to reveal the planets in the depiction of Mithras' birth from Housesteads, a site on Hadrian's Wall (see Plate 15). The signs are arranged in a horseshoe shape, and the top two are separated off by Mithras' sword and torch (Figure 24). Thus, schematically:

	Cancer	Leo
sword		torch
	Gemini	Virgo
	Taurus	Libra
	Aries	Scorpio
	Pisces	Sagittarius
	Aquarius	Capricorn

This is precisely the arrangement of the planetary houses, with the houses of the Moon and Sun at the top, and the nocturnal and diurnal houses arranged underneath accordingly. Here are the decoded planets:

Moon	Sun
Mercury	Mercury
Venus	Venus
Mars	Mars
Jupiter	Jupiter
Saturn	Saturn

As in the tauroctony scene, Sun and Moon are opposite each other at the top. Moreover, the placing of the planets in their houses recalls the *thema mundi,* the birthday of the universe, at least in a common version.

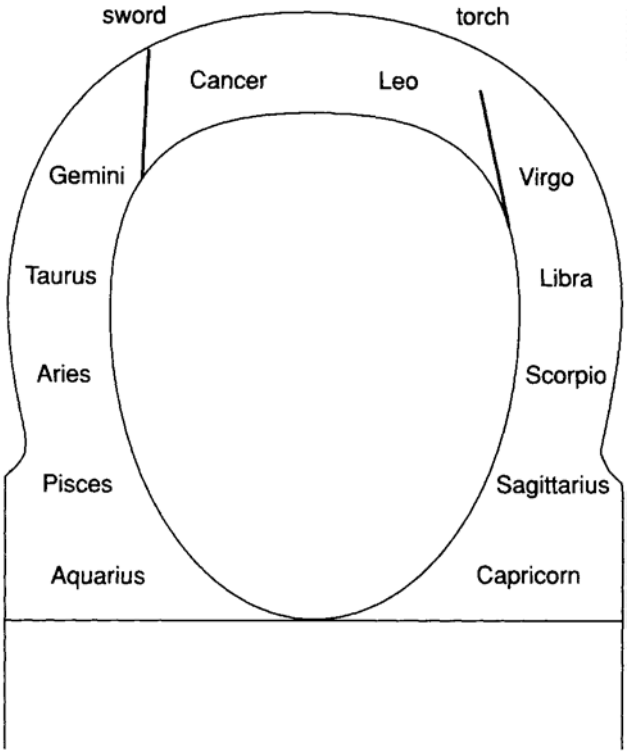

Figure 24 Housesteads: schema of Mithraic birth-scene. After Beck 1988.

There may also be allusions to the exaltations of the planets in the monuments. For instance, in a tauroctony from Sidon[77] the zodiac circle is placed so that Aries, the exaltation of the Sun, is shown jumping up at the bust of Sol, and Taurus, the exaltation of the Moon, jumping up at the bust of Luna. This pairing recurs in another relief, where the busts of the luminaries are put next to the animals, which are not part of a zodiac.[78] It is possible that there is a reference both to planetary exaltations and houses in two other reliefs, from Siscia and London.[79] In these, Taurus is next to Luna, and Leo, the Sun's house, next to Sol.

Several scholars have pointed to the astronomical interpretation of the figures visible in the tauroctony scene.[80] Apart from Mithras and the bull, a snake, a dog, a raven and a scorpion, and sometimes

a lion and a cup, are featured. These have been explained as constellations, Hydra, Canis Minor, Corvus, Scorpio, Leo major and Krater. Wheat ears have also been interpreted as Spica. Explanations for the choice of constellations vary, but the most comprehensive solution, albeit a controversial one, has been provided in a recent publication by David Ulansey, who alters the correspondences slightly.[81] He argues that the constellations are those which lie on the celestial equator at a time when the spring equinox is in Taurus, that is a time between roughly 4000 and 2000 years BCE, when precession brought the spring equinox to Aries (see Chapter 4). The torchbearers he interprets as representations of the spring equinox in Taurus and the autumn equinox in Scorpio. He suggests that the significance of this is that Mithras is seen as cosmocrator, ruler of the cosmos, whose dramatic power was exhibited when he shifted the entire cosmos round the poles so that the equinoxes moved. The god is represented killing the Bull because he brings the age of Taurus to an end. Ulansey attributes the origins of Western Mithraism to the Stoic philosophers of the region of Tarsus. The Stoics' interest in astronomy and astrology and in the theories of the Magi on the World-Ages, each ending with a conflagration, has been mentioned above. Mithraism is therefore seen to be based on the latest scientific discoveries and on the most contemporary philosophy in its origins.

Ulansey has certainly not exhausted the various meanings detectable in Mithraic iconography, where multivalence seems a key value. This survey has barely scratched the surface, in order to bring out some of the aspects relevant to astrology. Here we come finally to consider solar cult specifically, and before moving on to state cults of the Sun, we need to explicate briefly the solar aspect of Mithras. Greeks knew that Iranian Mithra had been identified with the Sun by the late first century BCE.[82] Mithras was titled Helios, as we have seen in the case of the magical papyrus, as well as *Sol Invictus,* the unconquered Sun. In the iconography Mithras both represents the Sun and is set against it. He appears banqueting with the Sun, shaking hands with him or crowning him, for instance. One plausible explanation of this is that he represents Saturn, the Star of the Sun to many ancient astrologers. In fact, Ptolemy mentions in the very passage discussed above that the Persians worship Saturn as Mithras Helios. Babylonian astrology seems to have seen Saturn as the Sun of the Night, as opposed to the Sun of the Day. This is why Mithras and the Sun can be seen as equivalent; however, since the top Mithraic

initiation-grade corresponds to Saturn, while the Sun comes second, it is clear that Mithras can be portrayed as superior to the Sun.

Solar cult

But the cult of the Sun in the guise of Sol Invictus Elagabal, which became the state religion of Rome in 218 CE when Elagabalus became emperor, also claimed the title of the Unconquered Sun. Mithraism reached its zenith of popularity in the third century, and the two cults undoubtedly fed off each other's success. They were quite different forms of cult, however, Mithraism being an unofficial cult, taking place in secret, underground, with small communities, while the cult of Sol was the state cult for the whole Empire, with its officials part of the imperial administration. Before Elagabalus, however, the cult was firmly locally-based, and it seems likely that the popularity of the cult of the Sun-god at Emesa among the soldiers stationed there was connected with the high standing of Mithraism in the army. Had it not been for the soldiers' support for the cult, the young high priest Elagabalus might never have become emperor. But even after the soldiers had won him victory over the man who had proclaimed himself Caracalla's successor, this distant relative of the imperial house would not have succeeded in keeping power if the solar cult had had no roots in Rome.

There had been local cults of the Sun and the Moon at Rome, almost always mentioned together, going back to at least the fourth century BCE, but they were minor figures in the Roman pantheon, like Helios in Greece.[83] There is little concrete evidence of these cults of Sol and Luna before coins of the late republic. One cult centre was on the Quirinal, maintained by the Aurelian family, and another in the Circus Maximus.[84] It may be no coincidence that the Sun-god comes to greater prominence at the same time as individual rule. Mark Antony had the god on his coins, and Augustus was to trump him with his dedication to Sol of two obelisks from Egypt. One obelisk, in the Campus Martius, was the shadow-caster of a meridian-instrument which measured the Sun's progress through the zodiac during the year, and this was the monument which celebrated Augustus' defeat of Antony and Cleopatra. Augustus also exploited links with Apollo, the Greco-Roman god associated with the Sun.[85] As for the Moon, we hear from Horace, in connection with Augustus' official celebration of the Saeculum, in 17 BCE, about Luna Noctiluca (night-light).[86] She had a precinct on the Palatine hill which was kept

alight at night, and was closely associated with the goddess Diana, patron of the Moon. There was another temple to Luna on the Aventine.

Scattered inscriptions record worship of Sol, often in conjunction with Luna, in Rome under the Early Empire, some referring to priests.[87] One Anicetus proclaims that he paid for the renovation of the gallery in the Sun's temple in 102 CE.[88] A freedman of Nero and his daughter dedicated an altar to Sol and Luna. Nero could have given him cause to dedicate to Sol, at least, for according to Tacitus he ordered thanks to be given to the Sun for uncovering a conspiracy against him.[89] It is in this passage that we learn that the Sun had an ancient temple in the Circus Maximus, which may have been connected with the notion of the Sun-god as controlling a chariot, a role commonly depicted in myth and also in Mithraic iconography. In fact, Nero himself was compared to the Sun-god as a charioteer.[90] The association of the Sun with the Circus encouraged the equation of the Circus with the cosmos which was already common in the second century, and became the basis for astrological techniques of predicting the winner, and magical techniques for destroying a rival charioteer.[91] Nero may have encouraged comparison of himself to the Sun with his commissioning of a Colossus, a statue 120 feet high with his own features surrounded by rays recalling the Sun, as a centrepiece of his Golden Palace. After Nero's death, Vespasian dedicated the Colossus to the Sun.

Records referring to the cult of Sol are mainly confined to Rome and Italy, but are also found in the province of Hispania Lusitania. But in the second century, the Eastern versions of solar cult became more widespread, both Mithraism and the cult of the Baal, known as Elagabal, the Syrian Sun-god. He was worshipped in the form of a black stone at Emesa. There was another cult of the Sun based in neighbouring Palmyra (see Plate 16). Solar cult was also widespread in neighbouring Dacia. The popularisation of these Eastern cults of the Sun at Rome probably began with the emperors Trajan and Hadrian.[92] In 158 we find a dedication of an altar to Sol Invictus from a member of the Emperor's elite equestrian corps.[93] Furthermore, the representation of the Sun on emperors' coins became increasingly common, culminating with Commodus, last of the Antonines. An inscription from his reign, in 189, suggests that a festival of the Sun took place.[94] Now that there were more Easterners represented in the Roman Senate the cult was also known at Rome. With the dynasty of Septimius Severus there were close connections with the imperial

family, as he married Julia Domna, a member of the family of the high priest at Emesa. On coins Severus called himself *Invictus*. A series of inscriptions from between 201 and 217 CE show the spread of the cult at Rome in the period. Severus built the most famous of the buildings known as Septizonia, which displayed the seven planets prominently. It has been suggested that the place of his statue in the middle of the building assimilated him to the Sun, since the Greek version of the term in Vettius Valens referred to an order of planets in which the Sun was in the middle.[95] But this is little more than speculation. Despite his family's solar focus, Caracalla, the son of Septimius and Julia Domna, seems to have cultivated the Moon in particular, as his birthday deity.[96]

Elagabalus brought his black stone to Rome. He seems to have made little attempt to adapt the cult to new circumstances, and to have insisted that it was to be the only state religion. However, when, after only four years he was deposed and suffered *damnatio memoriae* (official vilification), the cult did not die out as it would have done if it had been forced on Rome. At any rate the temples Elagabalus had built did stay, although his name was chiselled off inscriptions, and the stone was sent back to Emesa. Inscriptions suggest that worship continued at Rome.

It would not seem an auspicious beginning for an imperialsponsored solar cult, but the emperor Aurelian (270–5), a most dynamic and reforming emperor, promoted a different version of the cult of the Sun-god, now known as Deus Sol Invictus. Aurelian had won a decisive victory near Emesa, and in good imperial tradition recalled the occasion with due appreciation of the nearest god. In 274 he proclaimed the god the supreme god of the Roman state, built a new temple, instituted four-yearly Games of the Sun and organised a new college of priests. It was at the same time that he installed the goddess Dea Caelestis, from Carthage. The solar cult was more adapted to traditional Roman religion this time. Whether because of the cult's success, or simply because his successors followed his policies *in toto,* Aurelian's reformed cult held sway for the next half-century; coins, images and texts bear witness to the emperors' efforts to present themselves in association with Sol Invictus, as his divine representatives on Earth. This culminated with Constantine, but his sons abandoned the Sun in favour of the god of their father's victory. The population was not so quick to shift allegiance however, and there is testimony for centuries afterwards to Christians who pray to the Sun and Moon. It was doubtless with such people in

mind that the Church took over the festival of the Unconquered Sun on 25 December for their own god.

Some modern scholars have suggested that it was solar monotheism which prepared the way for Christianity's triumph. Even if this was the case, once the Church had secured state support it was hostile to its predecessor. Worship of the Sun, Moon or stars was heresy, and associated with the heresy of astrology. And the Church succeeded in driving both underground.

SUMMARY

In this chapter we looked at some of the areas of knowledge which were related to astrology in different ways. Physiognomies, geography, and ethnography were all potentially covered in the subdiscipline of astrology known as chorography, though specialists in these fields tended to ignore astrologers' explanations for the differences between different countries and their peoples. Even Ptolemy, who wrote a treatise on geography as well as one on astrology, seems to have kept the two quite separate, dividing up the world differently in each case. But if the writers on these disciplines were not willing to turn to astrology for answers, some medical authors co-opted astrology whole-heartedly, and many felt bound to refer to it in areas like pharmacology and prognosis of critical days of diseases. Astrologers, regardless of whether they had any medical training, seem to have felt qualified to pronounce on the astral causes of illness, and often to predict the way in which diseases would develop. In the field of horary astrology, medical matters played an important role– astrologers could offer advice on when to have surgery or when to take medication. Specialists, often drawing on Hermetic sources, wrote on drugs and the times to collect them.

Magicians drew on aspects of astrology in the same way as they drew on various religions. They brought astral powers on to their side, to join the *mélange* of deities and daemons and other entities in a chaotic and fluid cosmos on which they could call. They used them to assist in achieving the aims of their spells. Sometimes it is simply a matter of choosing the right ingredient, picked at the right moment, in order to conform to astral sympathies, but at others either astral entities or the gods who control them are invoked to perform the magician's wishes.

Mithraism too drew on the rich symbolic resources of astrology as one element of a complex amalgam. Like Gnostic and some magical

texts, it takes on the idea of seven planetary spheres or levels. In this case they are related to the grades of initiation. It seems to have invested its own meanings in the planets, the zodiac signs and the constellations, as well as drawing on arcane astrological doctrines in order to encode these meanings in the cult's iconography. It was also a form of solar cult, and illustrates the potential connections between star cult and astrology.

Quite different were the solar and lunar cults of Rome, and the cult of Sol Invictus, which had no complex theology as far as we can tell. Nevertheless, the solar cult is an important transformation of astrological beliefs, though it has nothing to do with the learned discipline. It doubtless contributed to popular receptivity to astrology. When the Sun became the primary deity of the Roman Empire, the wheel had in a sense turned full circle. For astrology had originated many centuries earlier out of the state-organised worship of the Sun and the other gods of the heavens.

CONCLUSION

The story of ancient astrology is one of continuity and of change. On the one hand there is a remarkable inertia often revealed in astrological writings. At the extreme, you can find a text of the sixth century, such as that of John the Lydian, containing passages about celestial omens which could have been copied from the cuneiform tablets of the first millennium BCE. As for the texts in the *Catalogue of Manuscripts of Greek Astrologers,* it is hard to tell from the state of the theoretical development whether a work is late Byzantine or preserves the earliest Hellenistic writings to survive. Who could say for certain, if it were not for the sources mentioned, whether an extract came from Tiberius' astrologer Thrasyllus, one of the first to bring Hermetic astrology to Rome, or from the fourteenth-century collection of Eleutherius Eleus?

There is continuity too in the world reflected in the predictions of astrological texts. Here we find an amalgam in which the sharp lines distinguishing Hellenistic culture from Greco-Egyptian, from Roman and from the turbulent times of the Late Empire, are blurred. This is partly a reflection of the way in which some aspects of quotidian existence did not change very dramatically over this long period. The questions of clients remained concentrated on similar concerns, on health, wealth, social status and the family, and the answers did not need to differ much in successive eras. People could always ask questions about the kinds of diseases they might suffer, whether they would be richer than their parents and how they would make a living, and what kind of marriages they would have, and receive similar answers. The predictions preserved a certain vagueness which allowed them to travel through time without needing much alteration. Even in the case of predictions tied to a particular geopolitical situation, as in the case of those attached to eclipseomens in Hephaestion,

reinterpretation was always possible. This is a rare case where the original chronological and geographical context is approximately identifiable (as Hellenistic Greece or Egypt). But on the whole it is a composite world, much of it passed on from astrologer to astrologer in the literary tradition.

On the other hand, despite the respect for tradition, there is a striking spirit of creativity in astrologers. Each stamps the mark of his individuality on his writing. Who could have guessed, on the basis of existing texts, that a papyrus published in 1927 would contain a version of astrology in which the portions of the heavens allotted to the planets would be based on the size of their epicycles?[1] This is only a particularly striking example of a tendency to create individual versions. Normally, the astrologer would just shake the kaleidoscope of constituent elements slightly to reveal a new arrangement.

We should not expect the kind of development of theory on an agreed core which would result from institutionalisation of teaching and practice. At most there may have been schools loosely attached to particular teachers of astrology, and public lectures. It makes sense to see the astrologers' endless variations on themes as the result of the context created by these existing fora for intellectual activities. For astrology, in the form in which we meet it in the treatises, was one of a number of intellectual disciplines, and could claim a place alongside medicine or philosophy. In both the teaching of pupils and public displays of knowledge, there were pressures to innovate. Because an important model for teaching was initiation into the mysteries, there was encouragement to add extra levels of knowledge. And the public displays of knowledge were made in a highly competitive context. We know that in the parallel case of dreaminterpretation, a debater would add more subtle distinctions and new techniques for the purpose of impressing the crowd. Learned astrologers were public performers, and aspired to improvise on the standard themes of astrology like jazz virtuosi.

In addition, it would be false to say that the astrologers entirely failed to innovate by adapting predictions to suit the contemporary world. We can discern some shifts, in the ranks of the administration mentioned, for instance, or the countries covered in chorography. But on the whole it is difficult to tell where changes have been made. To the reader of today, these subtle variations are elided owing to the overriding impression of the difference between the ancient and the modern world, which is neatly illustrated by the incongruities in the predictions for Prince Charles. No one would predict for

somebody living in the modern developed world now that he could have twenty children, but that many would die, that he would become a slave, or consort with magicians. These are minor points in themselves, but they are part of a scenario in which life is played out quite differently. The focus of interest in the predictions is completely at odds with modern expectations. Character is merely an aspect of the question of social status, or a reflection of positive or negative moral judgement, rather than the equivalent of the modern personality, so important to contemporary natal astrology.

But a major difference between the place of astrology in the ancient world and the modern, highlighted by the choice of Prince Charles, is the political importance of astrology. Of course, a prince in a system of constitutional monarchy does not have equivalent political power to an emperor. Nevertheless, even if we look to those in positions of real power, despite the occasional rumour, a personal astrologer is no longer the *sine qua non,* and is hardly to be taken seriously. Astrology in the ancient world was taken very seriously– there were few who expressed scepticism about the effects of the stars on human life, though there were plenty who expressed cynicism about astrologers.

In the ancient world, astrology was closely implicated in the monarchical regime. When the political system of the Roman Republic, in which power was vested in the Senate, collapsed into monarchy, the old forms of divination, which were tightly supervised by the Senate, gave way to astrology. Astrology had advantages for monarchs: it seemed the most sophisticated form of divination, being based on the latest scientific, philosophical and religious developments, it was tailored to the individual, and it allowed private consultation. It was also a rich symbolic system which could be exploited in creating the public image of the monarch. But the problem was that astrologers were not controllable in the way that the old state diviners had been. Astrologers were freelance: even if court astrologers had to be tactful, others could attach themselves to rivals, or they could publish unwelcome predictions. They had access to knowledge which afforded them political importance. Furthermore, it was linked to magic, and the emperors, like everyone else, were afraid of magic's being used against them. In short, astrology was dangerous. It could not be seen as trivial.

Astrology was also seen as dangerous by the Church. It offered a real threat to the Church's monopoly of knowledge. It is no wonder that it is connected with heresy, which also challenged the Church's

version of the truth. If punishments of astrologers who could be suspected of offering predictions about the imperial family were harsh in the pre-Christian empire, the Christian empire and the Church proclaimed much tougher chastisements for any sort of astrology at all. Of course, the laws, like other laws, were only enforced sporadically, but the change in symbolic pronouncements is significant in itself. Astrology's *curiositas,* or urge to know what was forbidden, was unacceptable. The Church fathers seem to have retained a fascination with astrology, and often conceded a surprising amount of truth to it, but they branded it the work of evil powers and drove it underground. However, despite centuries in which astrologers had to keep a low profile, it re-emerges in our sources in the early tenth century in Byzantium as if it had never left the court. Dangerous it might be, but for the emperors it was irresistible. Which ruler could deny himself the inscription of his imperial destiny in the cosmos?

GLOSSARY

Antiscia: relation between signs equidistant from the Midheaven or IC.

Aphetic place, *aphetes:* starting-point on the chart for calculation relying on prorogation (looking ahead to see where the planets cross particular points in the future).

Ascendant: the degree or sign of the zodiac rising over the eastern horizon at a given moment, *horoscopos* in Greek: the First Place.

Aspects: specific angular relationships between planets and other astrological entities. The aspects are conjunction, opposition, square, trine, and sextile (see Figures 18–21).

Benefic: planets, signs or relationships which are especially lucky.

Cardines, Cardinal Points: the Ascendant, the Midheaven (MC), the Descendant and the IC.

Chorography: sub-discipline of astrology relating geographical areas to planetary and zodiacal influences.

Clima: a zone of latitude, fixed according to the maximum day-length. Rising-times were normally listed for seven *climata*.

Climacteric: time of particular danger.

Conjunction: when two or more planets occupy the same approximate longitude, or sign.

Decans: three-fold divisions of the zodiac signs, normally allotted to different planets, adapted from Egyptian system of time-keeping (see Figure 15).

Descendant: point opposite the Ascendant: the entire Seventh Place.

Dodecatemories: twelfth-parts, originally referring to the twelve-fold division of the zodiac, but then to twelfth-parts within the signs, or smaller parts assigned to planets. Planetary dodecatemories are found in a common method by multiplying by twelve the

number of the degree in which the planet is found; there are also dodecatemories of cardines and other astrological entities.

Ecliptic: the apparent path of the Sun round the Earth (see Figures 2–5).

Epagomenal: extra (days in the calendar); in the Alexandrian calendar year there were five epagomenal days after the twelve months of thirty days.

Ephemerides: tables listing the positions of the planets.

Epicycle: small circle moving round the circumference of a larger one; the idea of epicycles as additional to the main concentric circles of the planets' motions was developed in order to explain how the planets' irregular motions (as seen from Earth) could be circular.

Equinoxes: the two days of the year in which the Sun crosses the equator, so that the duration of day and night is equal all over the world.

Genethlialogy: natal astrology.

Heliacal rising: first rising of a star after its period of invisibility due to conjunction with the Sun.

Heliacal setting: last setting of a star before its period of invisibility due to conjunction with the Sun.

Hemerology: art of divination on the basis of auspicious or inauspicious days.

Hermetic: part of the corpus of works attributed to Hermes Trismegistus (thrice-great), probably from a Greco-Egyptian milieu. They include religious/philosophical, magical and astrological texts. From the Renaissance, Hermetic referred to any occult art.

Horary astrology: a branch of astrology involving reading the chart for a particular moment in order to determine the outcome of an enterprise beginning at that time; the astrology of initiatives.

Houses: in contrast to modern astrology (see Mundane Houses), refers to the zodiacal houses of the planets: the signs which they rule.

IC ***(Imum Caelum):*** the nadir, at the bottom of the chart, opposite Midheaven: the Fourth Place.

Longitude (celestial): astrological, the number of degrees of arc from the beginning of Aries (see Figure 4).

Lots ***(kleroi):*** points on the birth chart representing particular areas of life. The major Lot, the model for the rest, is the Lot of Fortune.

Malefic: planets, signs or relationships which are especially unlucky.

Matutine: rising before the Sun.

Melothesia: rulership of astrological entities over parts of the body.
Midheaven (MC): the culmination point above the head of the observer: the Tenth Place.
Monomoiriai: single degrees of the 360-degree circle of the zodiac.
Mundane astrology: see Chorography.
Mundane Houses: see Places.
Myriogenesis: in Firmicus Maternus' usage, an astrological technique based on examination of units smaller than individual degrees.
Native: the subject of the birth chart (nativity).
Paranatellonta: stars which rise and set at the same time as the sections of the ecliptic, but north or south of them.
Places *(topoi, loci):* one of a set of divisions of the zodiac which are stationary, through which the signs rotate. There is an Eight place system *(octatopos),* but the norm is twelve Places. Each represents a different aspect of life. Equivalent to the modern Mundane Houses. (See Figure 16.)
Precession: the phenomenon of the retrogression of the equinoctial points when seen against the constellations, which has meant that the First point of Aries is actually to be seen in Pisces today.
Rising times: the rising time of a given sign is the number of degrees of the equator which cross the horizon at a given locality at the same time as the sign.
Sect: refers to planet's affiliation to day or night.
Solstices: the two days of the year in which the Sun is at its maximum angle of declination to the equator (23 1/2 degrees).
Synodic: pertaining to conjunctions of planets; *synodic period:* period between successive conjunctions.
Terms: divisions of the zodiac, of which there were normally five of unequal size in each sign. See the outer circle of Figure 22.
Time-Lords (rulers of time): planets designated as having the strongest influence over the native during certain periods.
Triplicity: groupings of three zodiac signs.
Vespertine: setting after the Sun.
Void of course: moving towards nothing. Not coming into aspect.
Zones: see *Clima*.

NOTES

INTRODUCTION

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11 Ammianus Marcellinus 29.2.27.
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23 1 Enoch 8.3; *Sibylline Oracles* 220–36; *Jubilees* 12.16–18.
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42 *Sermon* 7.4. 7.331.12–15B.
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4 Dorotheus, *Pentateuch* 1.8.7; Firmicus, *Mathesis* 2.13; Manilius, *Astronomica* 2.738–8.
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7 Pliny, *Natural History* 2.109; Soranus, *Gynaecology* 1.41,28, 25ff.
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9 *On the Face in the Moon (Moralia)* 928C.
10 *Tetrabiblos* 1.2.
11 Ibid.
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14 *On Mixture and Growth* 11.225.27ff. ed. and tr. R.B.Todd. Cf. *Commentary on Aristotle's Meteorology* 339a, 21–35:6.9.20; On *Fate* 6.5.
15 *Question* 23, 49.33ff.
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30 *Timaeus* 41d8ff.
31 Ibid. 42d5–el; 69c3–72d8.
32 Macrobius, *Commentary on the Dream of Scipio* 1.14.8; 17.8–11.
33 *Generation of Animals* 736b33–737a7.
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37 Servius, *Commentary on the Georgics* 1.34.
38 Iamblichus, *On the* Soul, in Stobaeus' excerpts 1.455, 1f. (Wachsmuth); Plutarch, *On Socrates'Personal Spirit* 591C; John Lydus, On *the Months* 4.149.
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41 Bara l989:40.

5 ASTROLOGICAL PRACTICE: CASTING A HOROSCOPE

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3 Ibid. 2.25.
4 I have used Rhys Bram's translation in what follows.
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10 Ibid. 3.13.8.
11 Ibid. 4.2.2.
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13 Ibid. 4.9.3.
14 Ibid. 4.19.2.
15 Ibid. 4.19.13–16.
16 Ibid. 4.21.10
17 Ibid. 4.22.

18 Ibid. 4.23.
19 Ibid. 5.1.13.
20 Ibid. 5.1.14
21 Ibid. 5.1.11.
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25 Ibid. 5.3.23–4.
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31 Ibid. 6.2.2.
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33 Ibid. 6.3.5–6.
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36 Ibid. 6.3.12.
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38 Ibid. 6.23.
39 Ibid. 6.32.
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49 Ibid. 1.7; 1.9.
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57 Ibid. 2.33.11.
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61 Ibid. 1.10.24ff.; 35.
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81 Ibid. 2.22.6; 2.24.2.
82 Ibid. 1.23.7.
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118 Ibid. 2.30.
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126 Bloch l968.
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128 *Mathesis* 5.3.1.
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130 *Pentateuch* 1.21.21.

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9 Cumont 1937:29ff.
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11 *Mathesis* 3.3.1. Cumont 1937:70 vs. Macmullen 1971.
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16 *Mathesis* 4.14.2.
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19 *Pentateuch* 1.10; 1.11.
20 Paul, *Opinions* 5.21.
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42 Ibid. 5.6, p. 220, 12–19.
43 Ibid. 5.1, p. 200, 3–11.
44 Ibid. 7.4, p. 263, 5–18.
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49 *Anthologies* 2.22, p. 82, 26–83, 2.
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15 *Medical Art,* vol. 1, pp. 332, 2–334, 11 (Kühn).
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18 *Pentateuch* 5.41, p. 316.
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24 Pliny, letter 2.20.
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33 *Corpus Inscriptionum Latinarum* 10.1497. Nutton 1979:171.
34 *Pentateuch* 5.41, tr. Pingree.
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CONCLUSION

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