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SCIENCE AND POLITICS
IN THE
ANCIENT WORLD

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CHAPTER ONE

INTRODUCTORY
A MODERN ILLUSTRATION

Haeckel, by stressing the application to Man of Darwin’s theory of the Origin of Species, finds that he has transformed himself from a pure scientist to a politician.

This is a book about the obstacles to the spread of a scientific outlook in the ancient world. Of these obstacles the chief is generally characterized as Popular Superstition. The purpose of this study is to raise the question how far popular superstition means superstition originated by the people or imposed upon the people. Plutarch, in his brilliant essay On Superstition, says of the victims of this disease that “they despise Philosophers and Grave Personages of State and Government, who do teach and show that the Majesty of God is accompanied with bounty, magnanimity, love and careful regard of our good.”¹ But we shall find much evidence to show that philosophers and grave personages of State and Government inculcated also less comfortable doctrines of acknowledged falsity. Ancient writers will inform us of the nature of these doctrines and the motive for their dissemination. Their testimony will help us to distinguish between the two sources of ancient superstition, popular ignorance and deliberate deceit. To the writer it seems that the keeping of this elementary distinction results in a shifting of the perspective in which the history of science in antiquity is seen and in the clarifying of several issues that were previously obscure. Above all,
it throws light on the history of Epicureanism, and on the strange figure of the Latin poet Lucretius, in whose work the war against superstition reached its highest expression in the ancient world.

In the later chapters of this book we shall be concerned to trace the interactions between Natural Philosophy and Political Philosophy in the world of Classical Antiquity. In our view the development of Natural Philosophy was violently interfered with by considerations that arose in a field extraneous to it, namely politics. The invasion of the domain of Natural Philosophy by political ideas is most evident in Plato. The last determined endeavour to rescue Natural Philosophy from politics was made by Lucretius. Our enquiry, therefore, though it will start before Plato and continue after Lucretius, will centre mainly round these two great figures. But since it may not be immediately apparent that Natural Philosophy and Politics can and do interact, it may be well to give first an example from modern times of such interaction.

Among the advocates of the biological theory of evolution which produced such a ferment, not only in scientific circles but in society in general, in the closing decades of the nineteenth century one of the most prominent and most zealous was Ernst Haeckel. Round his head broke the most violent storms of controversy. Haeckel was a member of the upper classes with no particular interest in social problems. Only experience revealed to him, and the revelation puzzled him somewhat to his dying day, that an uncompromising public championship of his scientific views was a form of political action which roused the sharpest controversy and made him a hero to one political party and an object of suspicion to another.

Darwin, when he published his *Origin of Species* in 1859, soft-pedalled its application to the origin of man. He provided his book with a theistic conclusion, and merely suggested *en passant*, as among the probable results of his theory of Natural Selection, that “light will be thrown on the origin and history of humanity.” His German translator, Bronn, whose version appeared in 1860, still more timid than Darwin, thought it better not to render the passage at all. He simply omitted the dangerous sentence. But at a scientific congress at Stettin in 1863 Haeckel, who was the first speaker, vigorously underlined the implications for the natural history of man that must logically be developed from Darwin’s theory. He had the general approval of his colleagues, Virchow among them. But Virchow had a sense for the social implications of science that Haeckel in his innocence did not yet possess. At a later stage of the same congress he proceeded to limit the field of action of science in a sense the full significance of which did not become clear for many years. It was the business of the scientist, said Virchow, to establish facts, but not to go on to philosophize about them. In the domain of fact science is supreme. If it be established as a fact that man is descended from the ape, no tradition in the world will be able to suppress the fact. And the supremacy of science in the domain of fact must be respected even beyond its frontiers. Church and State must both bow to science in the realm of fact. “The far-seeing Government and the open-minded Church will always assimilate these advancing and developing ideas and make them fruitful.” But at the same time, said Virchow, science must not seek to trespass beyond its frontiers. And in the drawing of those mysterious frontiers Virchow showed a wish to compromise with the claims of the far-seeing Government and the open-minded Church which was later to produce the sharpest divergence between him and Haeckel.
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At the Stettin congress Virchow did not indicate the nature of the compromise he sought with Government. His concession was to the Church, and very curious was the line he drew between the spheres of Science and the Church. Consciousness, said Virchow, and above all those facts of consciousness that dominate our whole higher life, can never be the concern of science. “That is, I think,” he said, “the point where science makes its compromise with the Churches, recognizing that this is a province that each can survey as he will, either putting his own interpretation on it or accepting the traditional ideas; and it must be sacred to others.”

Virchow’s position was anything but completely clear, but enough of it was clear to be unacceptable to Haeckel. The scientist might gather facts but he must not draw conclusions, at least in the sphere of consciousness. To impose such a compromise on Haeckel would have been to forbid him to think. He was to be free to trace the evolution of the physical structure of living things from the moneron to man, but not free to associate therewith any conclusions on the evolution of the psychic activities that depend on the physical structure. Vesalius had already muttered under such restrictions three hundred years before. Haeckel continued to enquire, to speculate, and to publish. Virchow, now openly setting expediency above truth, moved into full opposition. At the congress of 1877, it was no longer with the open-minded Church (its power had declined in the meantime in Germany) that he sought to establish a compromise, but with the far-seeing Government, which for the moment was the more powerful of the two. This time, not the Deposit of the Faith, but Interests of State, were to define the limits of the scientist’s activities. Darwinism was now opposed on the ground that the Social Democrats had taken to it. Science was to be restricted because the people were becoming interested in its conclusions. Not truth but political expediency was to be the controlling factor in the growth of science.

Haeckel now felt himself crushed between the upper and the nether mill-stone. He had always dreaded the ignorance of the multitude; now he began to fear that his worst enemy was the alliance of the Church with the reactionary political party in Germany. Ignorance, he reflected, may be cured; the appeal to interest is always addressed to deaf ears. He had always concerned himself with publishing his conclusions to the educated non-specialist; now he would seek a wider public still. He would, if he could, enlighten the multitude. That way at least lay hope for the future of mankind. Haeckel had turned politician, but not by abandoning science; he had merely found that to be a consistent and courageous scientist was politics in the highest degree. With the composition of The Riddle of the Universe he addressed himself to the man in the street. The book, translated into fourteen languages, sold in its hundreds of thousands. The Jena professor, whose weak voice could hardly be heard in the lecture-room, had spoken to the world. His determination not only to enquire but to publish the results of his enquiries had transformed the very nature of his activities. His opinions ceased to be a matter of merely academic concern; they, and his right to express them, had become the symbol of a struggle of the people for emancipation. To his bewilderment, and possibly not altogether to his satisfaction, he was exalted to the rank of a prophet by the democracies of the world.

Such were the repercussions in Church and State of one man’s advocacy of Darwinism at the end of the nineteenth century. If it was observed with alarm that he was being
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read by factory-workers and fishermen; if it was discovered in his own country that his works were “a flesh of shame on the escutcheon of Germany,” “an attack on the foundations of religion and morality”; and in Glasgow that the impeccable author himself was “a man of notoriously licentious life,” these phenomena have, as we shall see, their analogy in the history of science in the ancient world.\(^2\)

1 Plutarch’s *de Superstitione*, chap. 6. Translation by Philemon Holland.  
2 The source for the account of Ernst Haeckel given in this chapter is *Haeckel, His Life and Work*; by Wilhelm Bolsche; translated by Joseph McCabe, Fisher Unwin, 1906.

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CHAPTER TWO

A FIRST GLANCE AT OUR PROBLEM

FROM ANAXIMANDER TO COSMAS INDICOPLEUSTES

Anaximander, in the sixth century B.C., teaches a theory of evolution based on observation. Cosmas, in the sixth century A.D., teaches a theory based on the Bible, that the universe is made on the model of the Tabernacle of Moses.

Attention has often been directed to the “miraculous” rise of Greek science in sixth-century Ionia. Equally marvellous is the state of its decline in the sixth century of our own era after more than a thousand years of civilization. This being the phenomenon we hope to explain in some measure, it will be well to take a preliminary survey of it.

In the sixth century in Ionia, within the compass of the lifetime of two men, Thales and Anaximander, science achieved an astonishing development. It is a fact, which anyone can confirm who cares to take the trouble, that the kind of things that Anaximander was saying in his book *On Nature* were the same kind of things that an up-to-date writer puts forward to-day in a scientific handbook of the universe. Thus, Anaximander was already maintaining that the sun, moon, and stars, the earth, and the sea, were all made of one fundamental substance; that they came to occupy their present positions in the universe as a natural result of the motion with which the primary
matter is endowed; that this motion tended to send the hot and fiery element to the outside of the universe, the cold and earthy to the centre, while water and mist lay between; that the earth was still undergoing a great process of change, owing to the fact that the encircling heat continually dried up the moisture from the sea and the surface of the earth, a process plainly proved by the observed phenomenon of raised beaches; that living things had been produced in the course of the natural process thus described and were under the necessity of adapting themselves to their environment or perishing; that "the first animals were produced in moisture, and were covered with a spiny tegument; in course of time they reached land; when the integument burst they quickly modified their mode of life"; and that "living creatures were born from the moist element when it had been evaporated by the sun; man, in the beginning resembled another animal, to wit, a fish." These were the kind of things Anaximander was writing. And he was further aware that he had arrived at these conclusions by looking at the universe about him and thinking about what he saw. He realized that the kind of things he was led by observation and reflection to believe about the universe constituted a new kind of knowledge not the same as that taught by poets and priests; but he thought that it could be trusted to make its way by itself with intelligent people and would be found useful to humanity. He himself began to apply his knowledge to the practical purpose of making a map of the known world.

People have been rightly astonished at the progress in science that was made in a generation in Ionia in the sixth century. But is it not even more astonishing that this promising beginning should in due time have completely failed? In the sixth century of our own era a writer called

Cosmas Indicopleustes, whose work has survived while only the smallest fragments of Anaximander's remain, set out to prove, in his Christian Topography, that the earth is a flat plain with high walls enclosing it on each of its four sides. He was led to this opinion not primarily by the examination of the world, but by a conviction that the world was made on the model of the tabernacle of Moses described in Holy Writ. With this supernatural guidance to aid him he knew that the sky was a semi-cylindrical lid which rested on the four walls and thus formed a cover for the plain. Other knowledge also he possessed. It had been a defect of Greek science that it had failed to develop a theory of energy, and much nonsense was believed and written by Greek philosophers on the question of the power that moved the heavenly bodies. But Cosmas had a solution for this problem also. According to him the motive power for the heavenly bodies was supplied by angels. It was angels who produced the phenomena of night and day, and other phenomena of the sort, by carrying the heavenly bodies round a high mountain that lay to the north of the plain. The defect of Greek science was thus made good. The foolish Greeks had hesitated on the threshold of a theory of energy; angels rushed in where fools had feared to tread. But the most significant thing of all is that Cosmas had parted with the idea that the universe is evidence of its own nature. This evidence is now to be derived not from study of nature but from study of a book; and this book is not believed because it is new, but because it is old; and not simply because it is old, but because it is supernatural. What causes had operated to produce the change from the world of Anaximander to the world of Cosmas Indicopleustes? This is the question with which we shall be concerned.

It may be objected that in contrasting Anaximander with
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Cosmas we are contrasting one of the greatest of Greek thinkers with a Christian writer of no very great intellectual pretensions. But this objection is not valid, for the comparison is intended not between the individual thinkers, but between the two men as representative of their times, and both Anaximander and Cosmas are representative figures. If it had been a question of finding a better scientist than Cosmas in the sixth century of the Christian era, Joannes Philoponus, the distinguished commentator on Aristotle's *Physics*, who was converted from Neo-Platonism to Christianity about A.D. 520, would serve our turn. But Philoponus is not a typical figure. In so far as he was a scientist he represents the survival of a dying tradition. It was the opinion of Cosmas, namely, that in the Bible we have the key to the understanding of the nature of things, that was to be characteristic of the coming age.¹

The problem, then, is to find an adequate cause for the decline of the scientific activity of the ancient world, the disappearance of the spirit of enquiry into the nature of things. Many answers have been suggested. Christianity has been blamed. But this is no answer to our problem; for, in so far as Christianity was incompatible with science, we have still to ask why the ancients abandoned their science for Christianity.

The inroads of the barbarian peoples on the frontiers of the Roman Empire are credited with the destruction of the tradition of civilization. But this raises the enormous question why the civilized portion of the world should have declined in power and the uncivilized portion increased, until the disproportion became so great that the barbarians overran the Empire. If science had been doing what science can do for mankind the Empire would never have fallen before the attack of the rude invaders.
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practice that follows from the institution of slavery a reason for the development of the speculative and abstract side of science and the failure of its concrete applications.

To the present writer the line of explanation opened up by those who approach the problem of the failure of ancient science from the point of view of the social structure of ancient society seems the true one. The problem is complex, and in this essay only one aspect of it will be stressed. Many writers have shown a lively sympathy with the view that science is the creation of an élite and is endangered if it be entrusted to the ignorant mob. It is not so common to find any corresponding sense of the responsibility of governments for the existence of such ignorance; still less of the active part played by governments in the promotion of ignorance.

Salomon Reinach\(^3\) accounts for the retrogressions towards animism and magic, whether in nineteenth-century France or fourth-century Greece, by "the admixture of minds emancipated, but few in number, with the ignorant and superstitious multitude." But though he does utter a reproach against the "cultivated rationalistic classes, which cared nothing for enlightening the poor folk," he shows no true sense of the issues involved. He is unaware of the resistance offered by oligarchies to the spread of knowledge among the people. This is another aspect of the truth, without which the halting progress of enlightenment cannot be understood either in the ancient or in the modern world.

Readers of Collet's History of the Taxes on Knowledge\(^4\) will understand the problem as it existed in England in the nineteenth century, and will be able to set in its historical context the famous inscription on the Examiner newspaper in the 1830's: "Paper and print 3d., Taxes on Knowledge 3½d., Price 7d." Then, "learning that the State," in the phrase of George Jacob Holyoake, "was for a hundred and forty-three years the active and determined frustrator of public information," they will turn back to the study of the oligarchical policies of Greece and Rome with a sharpened comprehension. In the view of the present writer, the problem of government in the class-divided societies of classical antiquity reveals its acuteness not only in the descriptions of open stasis, or class-warfare, in which the records of the ancient historians abound, but in the systematic efforts on the part of governments, priesthoods, and leaders of thought in various fields of human achievement, to provide the mass of their people not with true ideas but with "wholesome" ones.

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\(^1\) For Joannes Philoponus see Brunet et Miel, Histoire des Sciences Antiquité, Paris, 1935, pp. 963 ff. It may be noted that the opinion of these two authorities is wholly against the out-moded view that Christianity killed Greek science. According to them it died of internal decay. Elle aurait eu le même sort, croyons-nous, sans l'intervention de l'église chrétienne (p. 978).

\(^2\) See Seignobos, in his recent Essai d'une Histoire Comparée des Peuples de l'Europe (Rieder, Paris, 1938), p. 29: Les Grecs, opérant sur les connaissances accumulées en Orient créèrent une méthode de pensée si nouvelle qu'elle a été appelée "le miracle grec" et attribuée à un génie propre à la race hellénique. En fait, elle fut l'œuvre d'un petit nombre d'individus, savants, philosophes, écrivains, venus des points les plus éloignés, la plupart même de pays dont la population n'était d'origine hellénique.

\(^3\) See Salomon Reinach's Orpheus, English translation, Routledge, 1911, pp. 24 and 95.

\(^4\) Collet's History of the Taxes on Knowledge, Watts (Thinker's Library), Intro. pp. x and xi.
CHAPTER THREE

A SECOND GLANCE AT OUR PROBLEM

THE GEOMETER-GOD

In this chapter it appears that arithmetic is democratic, geometry oligarchic, and that God prefers the latter.

Science, as has been implied in our last chapter, can advance or retreat along two roads. There is first the advance that consists in the actual progress of knowledge and refinement of ideas, irrespective of the numbers of those who share in the advance. In the second place there is the progress of the dissemination of scientific ideas among the general mass of the people.

In our modern world, where the practical applications of science have transformed and continue to transform society, the question of the dissemination of scientific knowledge among the people at large assumes a different aspect from that which it presented in antiquity. Pure science, in our western democracies, may still to some extent be the preserve of an oligarchy, but without a wide dissemination of technical knowledge modern society is unworkable. The problem that presents itself to societies of oligarchical complexion is how to combine political ignorance with technical efficiency.

These considerations reveal to us the further fact that there is a connection between the character of science and its dissemination. In this matter our democracies are at the cross-roads. Either our science must transform itself by the recognition that the history of its development is unintelligible without an understanding of its social origins; that men cannot be adequately trained in applied science without instruction in its social function; and that the obstacles to the progress of science can be external to it, in the sense that they rise out of the structure of society as well as out of theoretical errors; either this transformation must take place or science must retreat. The future of science is now plainly a political question. Either we must base our civilization more thoroughly on scientific foundations, or we must destroy science itself. Both processes are taking place in the world to-day.

But in the world of Classical Antiquity, though there was an analogous situation, it had recognizable differences. The machine age had not come. At the basis of the social pile lay man himself, not man and the machine. There was therefore no problem to be solved of combining technical training with political incompetence. The problem was the simpler one of disseminating such ideas as would make the unjust distribution of the rewards and toils of life seem a necessary part of the eternal constitution of things, and of suppressing such ideas as might lead to criticism of this view of the universe. That the extent to which this political principle operated seriously conditioned the history of science, and was, in fact, a major cause of that degeneration of science which took place between Anaximander and Cosmas Indicopleustes, it is the object of this essay to prove.

There will be those who will deny that any such considerations affected the judgments of leaders of thought and opinion in Classical Antiquity. There will be many more, who though they will admit that there is some evidence
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for this contention, will think that it is of little or no moment. This must be so, otherwise it is difficult to account for the fact that they make so little mention of it in their books. The usual practice is to affirm, or to assume without affirming, that the opinions of all ancient thinkers are innocent of any other consideration than devotion to Truth. It will be well therefore to give an example of what is meant by the contention that both the character of ancient science and the problem of its dissemination were affected by political considerations.

In the Eighth Book of Plutarch's Dinner-table Discussions, the second topic raised is Plato's meaning in saying, if he did say, that God is always busy with geometry. Diogenianus raises the question, and after a preliminary assent has been given to Plutarch's view that the saying, though not to be found in any of the writings of Plato, is certainly conformable to the spirit and style of the man, the discussion begins. The first speaker, Tyndares, is not disposed to see any special difficulty in the saying. Are we to suppose, he asks, that Plato meant anything more unusual or subtle than his oft-repeated opinion that the function of geometry is to draw us away from the sensible and the perishable to the intelligible and the eternal? For the contemplation of the eternal is the end of philosophy, as the contemplation of the mysteries is the end of initiation. We must remember, he says, that it was for this reason that Plato found fault with the attempts of Eudoxus, Archytas, and Menaechmus to find solutions for geometrical problems by instrumental and mechanical devices. For these bring us down to material things again, and away from the eternal and bodiless Forms with which God, being God, is always occupied.

(So spoke Tyndares. And I think we may take it that it is generally, if still not universally, admitted that this shrink-

ing of Platonic science from contact with material things is not unconnected with the aristocratic contempt for manual labour. If further evidence should be wanted on this point, it can be found in those chapters of his Life of Marcellus in which Plutarch records with approval the contempt felt by the great engineer Archimedes for his own mechanical achievements.)

But the second speaker, Florus, was far from being content with this simple explanation. He thinks there may be something more particular implied. With pointed reference to the fact that Tyndares was a Lacedaemonian, he reminds the company that Plato was wont to link the name of his master Socrates with that of Lycurgus the law-giver of Sparta; indeed that he looked upon the founder of the Spartan constitution as being as important an influence on Socrates as the mathematician Pythagoras himself. He then offers the following remarkable interpretation of Plato's conception of the geometer-God. "Lycurgus is said to have banished the study of arithmetic from Sparta, as being democratic and popular in its effect, and to have introduced geometry, as being better suited to a sober oligarchy and constitutional monarchy. For arithmetic, by its employment of number, distributes things equally; geometry, by the employment of proportion, distributes things according to merit. Geometry is therefore not a source of confusion in the State, but has in it a notable principle of distinction between good men and bad, who are awarded their portions not by weight or lot, but by the difference between vice and virtue. This, the geometrical, is the system of proportion which God applies to affairs. This it is, my dear Tyndares, which is called by the names of Dike and Nemesis, and which teaches us that we ought to regard justice as equality, but not equality as justice. For what the many aim at is the
greatest of all injustices, and God has removed it out of the world as being unattainable; but he protects and maintains the distribution of things according to merit, determining it geometrically, that is in accordance with proportion and law.”

(The equation between Spartan oligarchy, geometry, and the law of God, may seem surprising to some. We shall unhappily be familiar enough with such thoughts before we have finished our enquiry.—Cf. Plato, Laws IV, p. 757.)

The third speaker, Autobulus, was not quite satisfied with what Florus had said. To him it seemed that Plato had intended something less political and more cosmic in significance. What Plato intended to convey is that Matter is a principle of disorder and discord on which geometry imposes order and harmony. For “when number and proportion are put into Matter, then the indeterminate is bound and circumscribed, first by lines, next by surfaces and depths, and so furnishes the first forms and different bodily shapes which serve as the foundation and base, as it were, for the coming into being of air and earth, of water and fire.”

When Plutarch himself, who spoke last, was asked to make his contribution, he expressed himself as of the opinion that there was something in what each of them had said. He rejected neither the ethical view that the function of geometry is to lift up our minds from things earthly to things heavenly; nor the political view that geometry is oligarchic, and arithmetic democratic; nor the cosmic view, that an understanding of the principles of geometry is the key to the understanding of the universe, the view that exalts a priori mathematics above observational physics; he rejected none of these views but rather summed them all up in a religious interpretation of his own.

God, according to Plutarch’s interpretation of Plato’s meaning, being the supreme geometer, had set himself, in the act of creation, the supreme geometrical problem. This is not, as might be supposed, the demonstration that the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides; rather was it that altogether choicer problem, on finding the solution to which Pythagoras had felt moved to sacrifice to God. This was: Given any two figures, construct a third similar to one and the same size as the other. The universe, Plutarch explained, owed its origin to three things, God, Matter, and Form. Matter is of all subject things the most disorderly; Form is of all patterns the fairest; God is of all causes the best. God, therefore, set Himself the problem to make a third thing like Form and coextensive with Matter. The result was the Kosmos, in which Form is imposed on all Matter.

So ends this particular Dinner-table Discussion. It is obvious that it comes out of a rich culture. And when we remember that some five hundred years separate Plutarch from Plato we are reminded of the vitality of that culture. The Academy which Plato had founded was still alive and was not to be closed for another four hundred years. We cannot but be impressed with the tenacity as well as the intellectual content of the Platonic tradition. But, equally, nobody can pretend that the system has not got a political side to it. It is the philosophy of an oligarch. The ethics, the science, the religion are quite consciously held as part of the creed of an oligarch. Or, if one prefers to put it the other way, the political theory of oligarchy is held to be the necessary consequence of the ethical, scientific, and religious views.

Furthermore, one cannot but be struck with the emphasis
upon mathematical, and the neglect of physical, science. Again, even within the domain of mathematics it is possible for one branch of the subject to be felt to be oligarchical and another democratic. And not only is arithmetic condemned as having egalitarian tendencies; mechanics are rejected as a danger to the soul. Amidst prejudices so violent as these, is it not possible, or even probable, that the neglect of physics is a further example of the influence of politics on science? That this is indeed so we shall attempt to show in the sequel. And the consequences of its neglect were neither slight nor soon mended. They were, in a famous phrase with which we shall be concerned later, "wounds of life," the occasion of groaning and tears to many generations of men.

CHAPTER FOUR

A THIRD GLANCE AT OUR PROBLEM

FROM EMPEDOCLES TO PRUDENTIUS

In the fifth century B.C. the pagan poet Empedocles preaches the need for a knowledge of the Nature of Things. In the fifth century A.D., the Christian poet Prudentius rejects the knowledge of the Nature of Things.

In discussing the history of science even in modern times it is far from easy to be certain how far the dissemination of ideas among the public has kept pace with the progress of knowledge in itself. This information is still more difficult to acquire with regard to ancient times. And in speaking of the high level of scientific knowledge attained by Anaximander in Miletus in the middle of the sixth century we intended no guarantee that his ideas had permeated society widely and deeply.

Nevertheless, there is much evidence in support of the view that the Ionian renaissance was in a very real sense a popular movement of enlightenment. Thus in a medical treatise on The Nature of Man, which dates from the second half of the fifth century, we have evidence of a wide interest in the science of the day. The writer opens with the remark: "He who is in the habit of listening to speakers who discuss the nature of man in a way that goes beyond its connexion with the science of medicine will find nothing to interest him in the present account." Then, after a few acid com-
as well as Solon, were legislators. Unless the minds of these great men were so constructed that their different mental activities took place in water-tight compartments, they must, already in the sixth century, have pondered much on the bearing of the new view of the world on the question of the organization of the city-state. Aeschylus was handling an old theme. (For the political activities of the Ionian scientists, see F. Enriques et G. de Santillana, Histoire de la Pensée Scientifique, I, Les Ioniens et La Nature des Choses, Paris, 1956, p. 26, note.) Protagoras too was a legislator.

CHAPTER EIGHT

PLATO AND THE RELIGION OF THE CITY-STATE


Plato was born in the year in which Anaxagoras is supposed to have died. In the interval which separated the two men the attitude of Athens to Ionian science had become more clearly defined and the antagonism had deepened. It was not only that Socrates had begun his powerful movement of revolt against Ionian materialism; the technique of government through religion was also better understood as well as the threat to this technique inherent in the spread of Ionian rationalism.

The political self-consciousness of Athens was a thing of very rapid growth. It corresponded to the equally rapid growth of Athenian democracy. “In less than one hundred and fifty years Athens passed from the domination of the Eupatrids to the full expansion of the democratic regime.”

The emancipation of the people from the political control of the nobles had not been effected without a challenge to the religion of the nobility, and this challenge sharpened in the nobility the understanding of the political function of religion. Two familiar texts reveal this understanding. They are too important to the argument to be omitted here.
PLATO AND THE RELIGION OF THE CITY-STATE

We shall first consider a fragment from a drama by the oligarch Critias, the disciple of Socrates and relative of Plato, in which he expounds the theory of the political origin of religion very commonly held in the eighteenth century of our own era. I quote Whittaker's version (op. cit., p. 77):

"There was a time when the life of men was unordered and brutish and subjected to main force; when there was no reward for the good and no punishment came to the bad. And then, I think, men appointed laws as chastisers, that justice should be ruler and keep wanton insolence in bondage: and if one transgressed, he was punished. Thereafter, when the laws hindered indeed wrongful works done by open violence, but men continued to do them by stealth, some shrewd and wise-thought man found an object of awe for mortals, that there might be some object of dread to the wicked even if they do or say or think anything in secret. Whence he brought in the divinity (ῥ θεόν), telling them that there is a Deity (ὁς ἐστι διάμον), vigorous with imperishable life, hearing and seeing with the mind, with sure thought attending to these things, and clothed with a divine nature, who will hear all that is said among mortals and will have power to see all that is done. And if in silence thou plan a wicked deed, this shall not escape the gods: for in them is careful thought. By this discourse he introduced the most welcome of teachings, hiding the truth with a false story (μεν ου γράφει τήν ἀλήθειαν λόγω). And there, where he could most astound the senses of men by saying that the gods dwell, there he placed them: in the vault of heaven above, whence, he knew, are the terrors that descend upon mortals and the benefits that help their toilsome life. There he saw that the

lightnings were, and the dire strokes of the thunder, and the star-eyed body of the sky, the fair-wrought broderie of Time, the wise artist; whence rises the glowing mass of the day-star and moist showers are poured down to earth. Such lines of fear he set around men, and fairly constituted the Deity by his fiction and in a fitting place, and quelled lawlessness with laws. . . . Thus, in my opinion, some one first persuaded mortals to think that there is a race of deities."

As a contribution to the philosophical understanding of religion the passage is immature. Critias was wrong in supposing (if indeed he did suppose; it is not fair to judge a man by an isolated fragment of a dramatic composition) that in disclosing the political function of religion, he had discovered its genesis. But that such a clear and cynical analysis of the political function of religion should have been made, and published, at this time is significant of the preoccupation of statesmen with such problems. The false religion is the work of a law-giver, "a shrewd and wise-thought man." In the opinion of another public man of the time, the rhetorician and educationist, Isocrates, the political function of religion could be as well, or better, discharged by a degraded polytheism as by the refined invention of an invisible god in the sky. In his amusing composition Busiris he thus interprets for his Athenian public the intentions of the religious legislator of the Egyptians:

"The pious practices which he introduced were many and various; for he established by law that they should reverence and honour animals that are despised among us, not because he was under any misapprehension as to the power of these creatures, but for two other reasons. The
first was that he thought it proper to accustom the mob to obeying any commands that were given to them by their superiors; the second, that he wished to test, by their attention to these public observances, the sentiments his subjects might entertain on matters more difficult to observe. For he thought that men who despised these little observances might very well also feel contempt for more important things, while he could rely on those who displayed their piety to be equally law-abiding in every other particular."

The tone is light, but the passage is none the less revealing on that account. It is the kind of evidence that most helps one who endeavours to recreate the temper of a distant society. It assures him that he is not introducing into his period a range of ideas wholly foreign to it. That these ideas were not foreign to fourth-century Athens a consideration of Plato will make clear. There are moments when one could wish that his treatment were equally light-hearted.

The view has been expressed that "philosophy is perhaps less influenced by outward circumstances than most branches of human thought and literature." This would hardly seem to be true of the one who to many is the philosopher par excellence, Plato. In his famous Seventh Epistle he himself tells of the connexion between his own philosophy and the politics of the day:

"The more I thought about the sort of men who were active in politics, the more I examined laws and customs, and the more I advanced in years, the harder it appeared to me to govern correctly. For one thing, nothing could be done without friends and loyal companions, and such men were not easy to find ready to hand, since our city was no longer administered according to the standards and practices of our fathers. Neither could such men be created afresh with any facility. What is more, the written laws and customs were being corrupted at an astounding rate. The result was that I, who had been full of eagerness for a public career, as I gazed upon the whirlpool of public life and saw the incessant movement of shifting currents, at last became dizzy; and, while I did not cease to consider means of improving the situation and indeed reforming the whole constitution, yet, in regard to action I kept waiting for favourable moments, and finally saw clearly in regard to all States now existing that without exception their system of government is bad. Their constitutions are almost beyond redemption except through some miraculous plan assisted by good luck. Hence I was forced to the conclusion that only the true philosophy can enable us to discern in all cases what is good for communities and individuals; and that accordingly the human race will not see better days until either the stock of those who rightly and genuinely follow philosophy acquire political power, or else the class who have political control be lead by some dispensation of providence to become real philosophers."

Such were the outward circumstances that determined that the great work of Plato’s first period should be the ten books of the Republic and the great work of his old age should be the twelve books of the Laws. The whole philosophy of Plato was a political philosophy, and the controlling purpose of his long life, which gathered clarity as he proceeded with his task, was the construction of a system of belief and a system of education which, being imposed by the governing authority, would guarantee the well-being of the State. Preoccupation with the polis was
as definitely the mainspring of the Platonic movement as preoccupation with nature had been the mainspring of the Ionian movement.

It is the startling opinion of A. E. Taylor that it was the heart of Plato's thought that "there can be no difference in spirit between the laws of public and of private morality." "Whoever holds," he continues, "that what would be 'morally' reprehensible for the individual person may be 'politically' admirable when done by the official representatives of the State, has broken with the whole view of the reasons for civic loyalty and political subjection characteristic of both Plato and Aristotle." But one would have thought that Plato's own words put it beyond question that the melancholy discovery of the difference in relation to Truth between the individual and the State was the keystone of his political philosophy. Let us quote:

"Truth should be highly valued; if, as we were saying, a lie is useless to the gods, and useful only as a medicine to men, then the use of such medicines should be restricted to physicians; private individuals have no business with them."

"Certainly not."

"Then if any one at all is to have the privilege of lying, the rulers of the State should be the persons; and they, in their dealings either with enemies or with their own citizens, may be allowed to lie for the public good. But nobody else should meddle with anything of the kind; and although the rulers have this privilege, for a private man to lie to them in return is to be deemed a more heinous fault than for the patient or the pupil of a gymnasium not to speak truth about his own bodily illnesses to the physician or to the trainer, or for a sailor not to tell the captain what is happening about the ship and the rest of the crew, and how things are going with himself or his fellow sailors."

"Most true."

"If, then, the ruler catches anybody beside himself lying in the State, Any of the craftsmen, whether he be priest or physician or carpenter (Od. XVII, 383), he will punish him for introducing a practice which is equally subversive and destructive of ship or State."

"Most certainly, if our idea of the State is ever carried out."

Republic, iii, 389.

Now one may like or dislike this, defend or attack it, but how can one, in face of it, maintain that Plato's view was that there should be no difference in spirit between the laws of public and private morality? Except, indeed, in this sense, that it was Plato's notion that the governmental "lie" should be so skilfully adapted to its purpose, and so thoroughly inculcated by training, that it should become second nature, and that there should be no possibility that the subjects should ever in thought or act question the truth of the governors. To them it should appear that truth reigned throughout the State.

Plato's intention was, of course, that the governmental lie should be a medicinal doctrine that should ensure the health of the individual and of society. But why was it that he feared the truth? On the title-page of this book I have printed the proud words of Epicurus, who carried on the tradition of Ionian science. "The study of nature turns out a type of man not prone to boasting or words nor to the display of that culture so desired by the many, but
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spirited and self-sufficient, basing his pride on his personal qualities not on external goods.” This type of man, and this type of education, had found favour with the leaders of the enlightenment and of democracy, who had believed that it was the common prerogative of all men to be capable of understanding and appreciating justice and therefore capable of full participation in the life of the State. Such, for instance, had been the teaching of the Sophist Protagoras, and such, we shall see, was the Epicurean view. Plato was incapable of this belief. He had so little faith in human nature that democracy was to him a mere chimera. It was to banish for ever the possibility of popular revolts and to establish a class-divided society on a secure basis that he sought to call in the aid of the governmental lie, and so to stamp it upon the soul of the people that they should be for ever incapable of questioning its truth. Who with any sense of the human tragedy of the twenty-three centuries that separate us from Plato can read his proposals without a sense of horror? I quote again from the Republic:

“How then may we devise one of those needful falsehoods of which we lately spoke—just one royal lie which may deceive the rulers, if that be possible, and at any rate the rest of the city?”
“What sort of lie?”
“Nothing new; only an old Phoenician tale of what has often occurred before now in other places, as the poets say, and have made the world believe, though not in our time, and I do not know whether such a thing could ever happen again, or that people could now be made to believe it if it did.”
“How your words seem to hesitate on your lips!”

“Vous will not wonder at my hesitation when you have heard.”
“Speak and fear not.”
“Well then I will speak, although I really know not how to look you in the face, or in what words to utter the audacious fiction, which I propose to communicate gradually, first to the rulers, then to the soldiers, and lastly to the people. They are to be told that their youth was a dream, and the education and training which they received from us, an appearance only; in reality during all that time they were being formed and fed in the womb of the earth, where they themselves and their arms and appurtenances were manufactured; when they were completed, the earth, their mother, sent them up; and so, their country being their mother and their nurse, they are bound to advise for her good, and to defend her against attacks, and her citizens they are to regard as children of earth and their own brothers.”
“You had good reason to be ashamed of the lie you were going to tell.”
“True, but there is more coming; I have only told you half. Citizens, we shall say to them in our tale, you are brothers, yet God has framed you differently. Some of you have the power of command, and in the composition of these he has mingled gold, wherefore also they have the greatest honour; others he has made of silver, to be auxiliaries; others again who are to be husbandmen and craftsmen he has composed of brass and iron; and the species will generally be preserved in the children. But as all are of the same original stock, a golden parent will sometimes have a silver son, or a silver parent a golden son. And God proclaims as a first principle to the rulers, and above all else, that there is nothing which they should so anxiously
consider, or of which they are to be such good guardians, as of the purity of the race. They should observe what elements mingle in their offspring; for if the son of a golden or silver father has an admixture of brass or iron, then nature orders a transposition of ranks; and the eye of the ruler must not be pitiful towards the child because he has to descend in the scale and become a husbandman or artisan, just as there may be sons of artisans who having an admixture of gold or silver in them are raised to honour, and become guardians or auxiliaries. For an oracle says that when a man of brass or iron guards the State, it will be destroyed. Such is the tale; is there any possibility of making our citizens believe it?"

"Not in the present generation; there is no way of accomplishing this; but their sons may be made to believe in the tale, and their sons' sons, and posterity after them."

"I see the difficulty; yet the fostering of such a belief will make them care more for the city and for one another. Enough, however, of the fiction, which may now fly abroad upon the wings of rumour, while we arm our earth-born heroes, and lead them forth under the command of their rulers. Let them look round and select a spot whence they can best suppress insurrection, if any prove refractory within, and also defend themselves against enemies, who like wolves may come down on the fold from without; there let them encamp, and when they have encamped, let them sacrifice to the proper gods and prepare their dwellings."

\Republic, iii, 414.\n
Before relating this passage to our general thesis there is one point in it that needs elucidation. An unwary reader might suppose that Plato envisages a free movement of individuals between the various classes, and that thus,

though he believes in the maintenance of a class-divided State, he supposes that by some fortunate automatism every individual will find his rightful place in it. In fact he was much too realistic to admit any such dangerous freedom into his ideal of the State. A little later on (par. 434) he expressly excludes the interpretation that any large migration from the lower classes to the upper is intended. "Any meddlesome interchange between the three classes would be most mischievous to the State and could properly be described as the height of villainy."

To return to the general discussion of the passage. It belongs to the same historical context as the passages already quoted from Critias and Isocrates. But it is to be taken more seriously. Critias and Isocrates say what they suppose old lawgivers to have done; Plato announces what he would do himself if he could. And it is to be remembered that this is Plato now in his fifth decade, the Plato who has returned from his travels and begun the organization of what was to be his life's work, the Plato who has just opened the Academy. To Plato it comes naturally, and leaves no bad taste in his mouth, to use the name of God to lend authority to his fiction, to support his fiction by oracles, and to enjoin that the victims of the lie should be strict in the performance of their religious duties. If any citizen should mistake the import of the instruction that all the citizens are brothers and imagine it to conflict with the class division of society, he must be told that "God has framed you differently." If any ruler should be careless in maintaining the class-system, he is to be told that "God proclaims it as a first principle that it should be maintained, and that there is an oracle, etc." And when the citizens, at the word of command, have run off to select the spot whence they can best suppress insurrection, if any
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prove refractory within, they are to sacrifice to the proper Gods.

Even in antiquity there were people who could not breathe this air. Epicurus, who did not like Plato, called him, with obvious allusion to this famous fiction, “The Golden Man.” And in our times, summing up his criticism of the Republic, J. M. Robertson writes (A Short History of Free Thought, 3rd ed., p. 175): “In that brilliant performance Plato objects to the scandalous tales in the poets concerning the Gods and the sons of Gods; but he does not object to them as being untrue. His position is that they are unedifying. For his own part he proposes that his ideal rulers frame new myths which shall edify the young; in his Utopia it is part of the business of the legislator to choose the right fictions; and the systematic imposition of an edifying body of pious fable on the general intelligence is part of his scheme for the regeneration of society. Honesty is to be built up by fraud, and reason by delusion. What the Hebrew Bible-makers did, Plato proposed to do.”

In the Laws, the work of Plato’s extreme old age (completed in point of subject-matter though lacking revision in point of style when he died in his eighty-first year), the effect produced by this policy of public deception is the more painful inasmuch as the verve and brilliance of the earlier work, which help to carry off the more paradoxical opinions, are lacking, and their place has been taken by a weariness of spirit and torment of the soul. It contains, indeed, early in the fifth book, a solemn tribute to the importance of truth. “Truth is the beginning of every good thing, both to Gods and men; and he who was blessed and happy, should be from the first a partaker of the truth, that he may live a true man as long as possible, for then he can be trusted; but that man is not to be trusted who loves voluntary falsehood, and he who loves involuntary falsehood is a fool. Neither condition is enviable; for the untrustworthy or the ignorant man has no friend, and as time goes on his character becomes known, and he lays up in store for himself isolation in crabbed age when life is on the wane; with the result that, whether his children and friends are alive or dead, he is equally solitary.” But that Plato did not regard the “pious fiction” as a derogation from the truth the rest of the work makes clear.

Thus, in the second book, after a severe criticism of the popular taste in art, Plato observes that, in the matter of ethics, there is nothing to surprise us in the fact that only the highest and most philosophical minds can grasp the fundamental truth that Virtue is Happiness. Yet this truth must be the basis of our education; for only a State in which the inhabitants are utterly and irrevocably impressed with the truth of this judgment can hope to be law-abiding and happy. “And even if it were not true,” he goes on to say, “still no lawgiver, if he ventured on a lie, could invent a more useful lie than this, nor one which would have better effect in making the citizens do what is right, not under compulsion but voluntarily.”

What is distressing in this passage is not simply the approval of the lie. It is, rather, the identification of virtue with obedience to the law. The purpose of Plato was the complete absorption of the individual in the citizen. He demands a perfect loyalty from every citizen to the constitution; but since the lots of the citizens under the constitution are not going to be equally fortunate (and everywhere both in the Republic and in the Laws he is haunted by the question of internal revolution) he can only secure this unquestioning obedience by the imposition of
the belief that the constitution is the law of God, and that obedience to it is synonymous with virtue. From the Platonic point of view the Antigone contained the most dangerous doctrine, and it was precisely such teaching (and not, as some have imagined, a debased type of drama that has disappeared) which necessitated Plato's opposition to the poets.

Having raised again the question of the useful lie, Plato proceeds with one of his most cynical observations. The general belief in myths, he points out, is a proof that you can make people believe anything if you have a mind to. Accordingly what the legislator has to do is to reflect what belief will be of the greatest public advantage, and then use all his efforts to make the community utter one and the same theme in all their songs and tales and discourses all their life long, with a view to impressing it indelibly on their minds. Of course Plato meant to benefit the community as a whole and individually. But does this intention make his policy any the wiser? Incidentally it may be observed that one consequence of such a policy, the complete suppression of all originality in art, was envisaged by Plato and received his hearty approval. The Egyptians, he triumphantly points out, have stereotyped their art. Why cannot we?

Plato, while approving the use of the pious fiction, was above all things anxious to avoid "the lie in the soul." But whether the habitual employment of the one does not carry with it the nemesis of the other is a question that may well be raised when we come to ask what, of all the religious institutions Plato proposed to establish in the Laws, he really and sincerely believed himself. Others must answer this question for themselves; for myself I avow that I can put no kinder interpretation on the religious legislation of the Laws than this, that Plato sincerely meant to prescribe what would benefit his fellow-men in this world and the next, but that by the end of his life the employment of the pious fiction had become so much a second-nature with him that he himself could not say what, if any, of it he believed, or what belief meant as distinct from a feeling that the credo would be socially useful.

The religious beliefs and practices recommended in the Laws fall into two main categories: first, a reactionary reimposition of a mass of traditional cults; second, the imposition of a startlingly new and intellectually defended body of theological dogmas. Failure to conform to either category of belief is to be punished with imprisonment for a first offence, then death.

Although in his second book Plato had sarcastically referred to the general belief in myths as proof that you could get the people to believe anything, he does not scruple in the fourth book to recommend the maintenance of all the traditional beliefs on no better foundation than that of "ancient report" (παλαιὸς λόγος, iv, 715e). God, he says, not man, as Protagoras maintained, is the measure of all things. For the good man to offer sacrifice to the gods, and hold converse with them by means of prayers and offerings and every kind of service, is the noblest of all things, and also the most conducive to a happy life. First in honour are to be held the Olympian gods, then the gods of the underworld; then demi-gods, heroes, and private ancestral gods; and lastly comes the honour of parents living or dead.

In the tenth book he returns to the subject with violence, upbraiding the young atheists of the day, who did not find in "ancient report" sufficient foundation for belief:

/ "Who can be calm when he is called upon to prove the existence of the gods? Who can avoid hating and abhorring
the men who are and have been the cause of this argument. I speak of those who will not believe the words which they have heard as babes and sucklings from their mothers and nurses, repeated by them both in jest and earnest like charms; who have heard also and seen their parents offering up sacrifices and prayers—sights and sounds delightful to children—sacrificing, I say, in the most earnest manner on behalf of them and of themselves, and with eager interest talking to the gods and beseeching them as though they were firmly convinced of their existence; who likewise see and hear the genuflexions and prostrations which are made by Hellenes and barbarians to the rising and setting sun and moon, in all the various turns of good and evil fortune, not as if they thought that there were no gods, but as if there could be no doubt of their existence, and no suspicion of their non-existence; when men, knowing all these things, despise them on no real grounds, as would be admitted by all who have any particle of intelligence, and when they force us to say what we are now saying, how can any one in gentle terms remonstrate with the like of them, when he has to begin by proving to them the very existence of the gods?"

*Laws, x, 887–888.*

Plato himself was obviously not convinced by this torrent of angry nonsense; for though it would be natural to suppose that the question with which the passage above concludes was a mere rhetorical question to which no answer was required, Plato at once proceeds, "Yet the attempt must be made." But the astounding thing is that when the attempt is made it consists not at all of a justification of the traditional cults of Olympian deities, gods of the underworld, demi-gods, heroes, and private and ancestral gods. These cults are left without a further word of justification, but in addition to them there is now introduced, by an elaborate and dubious argument, a new type of god, the astral deities of the East.

Plato couples his demonstration of the divinity of the heavenly bodies with an examination of the materialist philosophy of Ionia, and a statement of his own position in face of it, which is among the most interesting and important passages in his writings. A full examination of it would only be in place here if our intention were to proceed to a similarly full examination of the physical theories of Epicurus and Lucretius. But its importance for the purpose of our study is that it reveals to us the fact that in leaving the established cults without rational justification, and turning to the rational justification of a new type of religion, worship of the astral deities, Plato's action is determined by the necessity to find an answer to the "atheism" of the Ionian philosophers. Here, as elsewhere, they are the object of attack. The specific type of atheism found among the physical philosophers was either the belief that there are no gods at all, or the belief that they take no interest in human affairs. This latter is the belief that later came to be accepted as the characteristic view of Epicureanism. It could more precisely be defined as the dissociation of the gods from any control of the universe we inhabit; the belief that earth, sun, moon, and stars, are purely natural bodies whose motions are all to be explained in terms of natural law. This scientific view Plato found wholly incompatible with the political religion he proposed to establish.

Plato's argument for the divinity of the astral bodies is a curiosity. There are, he tells us, ten different kinds of motion in the universe. The first nine, which need not be
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and moon are made of fire and earth. Yet though every man sees the body of the sun, no man sees its soul. But it is the soul of the sun, the principle of motion in it, that is the sun-god, and in this sense the ancients have been right to worship sun and moon, and we must still continue the old wise ways.

One feels in the movement of the sentences that Plato had some feeling of triumph as he came to the end of this demonstration. But he had despaired of human nature. He therefore did not deceive himself as to the likelihood of there still being persons who would both fail to be convinced of the desirability of worshipping the stars, or who, if they accepted these strange gods, might still fail to see how the successful demonstration of the new theology carried with it the necessity of rendering unquestioned conformity to the old worship of the Olympian gods, the gods of the under-world, the demi-gods, the heroes, and the rest. Plato, therefore, had to provide for them. He established a court of inquisition, the Nocturnal Council, to deal with heretics, which was to allot five years’ imprisonment for a first offence, death for a second. Thus the advocacy of persecution for opinion made its first entry on the European scene. But there were already men in Plato’s day capable of seeing that verbal logic about “motion that moves itself” was no substitute for a mechanical interpretation of the movements of the heavenly bodies; that the identification of a “motion that moves itself” with the life principle (psyche) was an empty phrase; that an analysis that identified the motion of the heavenly bodies with the motion of a living animal was so superficial as to be beneath contempt; that the ascribing to the “motion that moves itself” all the rich connotations of the Greek word psyche was a gross logical error springing from a total failure to

enumerated, are all of external origin, communicated motions, capable of passing on their motion to other bodies, but always in the last resort dependent on the initial impulse received from outside. The tenth kind of motion, which differs from all the rest, is that which is capable of moving both others and itself. It is an original, spontaneous source of motion, the true principle of motion and change in all that is.

If this power of self-moving be found in any material substance, simple or compound, whether it be earthy, watery, fiery, airy, or a mixture of two or more of these, we say that the thing is alive; and we call the self-moving power in it the life. This life, or self-moving power, is the soul. The soul may be defined as a motion that moves itself.

The principle of motion, the motion that moves itself, having been identified as soul, is now made to carry with it all the connotations of the Greek word Psyche. To enumerate some of them: the motion that moves itself, the source of all life in the universe, is identical with wishes, reasonings, opinions true and false, attention, deliberation, joy and sorrow, confidence, fear, hatred, love. It is such motions as these, then, that control the secondary, derivative motions of corporeal substances, such as earth, sun, moon, and stars.

That the soul that moves the world is a good soul, a principle of wisdom and virtue, is shown by the regularity of the motions it initiates. Above all, the absolute regularity of the motions of the sun, moon, planets, and the heaven of the fixed stars is proof of the goodness of the souls that move them. We may surrender then, says Plato, to the physical philosophers the body of the sun and moon, and accept in that sense the truth of their assertions that sun
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understand the historical development of language and its symbolic function; and that the consequences of all this disastrous logic were fatal to the cause of human progress through knowledge of nature.

1 A Croiset, Les démocraties antiques, p. 20.
2 A. E. Taylor, Platonism, pp. 67, 68.

Supplementary Note.

The opinion of Milton on Plato's legislative proposals is worth quoting. "Plato, a man of high authority indeed, but least of all for his Commonwealth, in the book of his Laws, which no City ever yet received, fed his fancie with making many edicts to his ayrie Burgomasters, which they who otherwise admire him wish had bin rather buried and excused in the genial cups of an Academick night-sitting."

Areopagitica.

CHAPTER NINE

THE REVOLT FROM THE RELIGION OF THE CITY-STATE

Why Plato provided for two types of religion, (1) the traditional anthropomorphic gods, (2) new astral deities. Aristotle's explanation. The attitude to the City-State of Cynics, Stoics, and Epicureans.

As we have seen, in the Laws Plato provides for the establishment of two types of religion. First, he re-enacts all the traditional cults of the City-State; secondly, he introduces a new astral religion. In connection with the latter he attempts a formal theological proof of his creed and thus became the founder of natural theology. Why did he wish to establish two types of religion? Why did the latter only receive formal proof?

In a learned discussion of Plato's religious legislation Dr. Friedrich Solmsen writes:

"It seems certain that what Plato aims at in this book (Laws, x) is a restoration of the gods to their old position and dignity. He wishes them to become once again πολιοίχου or θεοὶ πολίται as in the old city-state. . . . The difficulty which is involved in this attempt and which makes it look slightly paradoxical, is that the gods whom he seeks to put in the traditional place are no longer Father Zeus or Pallas Athene, who, from their nature, might well indeed be πολιοίχου, but a wholly new kind of religious beings, namely, astral deities. In the course of a very elaborate