

## Thales

1.  
Some say that [the earth] rests on water. This in fact is the oldest view that has been transmitted to us, and they say that it was advanced by Thales of Miletus who thought that the earth rests because it can float like a log or something else of that sort (for none of these things can rest on air, but they can rest on water) — as though the same must not hold of the water supporting the earth as holds of the earth itself.

(Aristotle, *On the Heavens* 294a28)

2.  
Most of the first philosophers thought that principles in the form of matter were the only principles of all things. For they say that the element and first principle of the things that exist is that from which they all are and from which they first come into being and into which they are finally destroyed, its substance remaining and its properties changing... There must be some nature — either one or more than one — from which the other things come into being, it being preserved. But as to the number and form of this sort of principle, they do not all agree. Thales, the founder of this kind of philosophy, says that it is water (that is why he declares that the earth rests on water). He perhaps came to acquire this belief from seeing that the nourishment of everything is moist and that heat itself comes from this and lives by this (for that from which anything comes into being is its first principle) - he came to his belief both for this reason and because the seeds of everything have a moist nature, and water is the natural principle of moist things.

(Aristotle, *Metaphysics* 983b6)

3.  
Some say that [soul] is mixed in the whole universe. Perhaps that is why Thales thought that everything was full of gods.

(Aristotle, *On the Soul* 411a7)

4.  
Thales, judging by what they report, seems to have believed that the soul was something which produces motion, inasmuch as he said that the magnet has a soul because it moves iron.

(Aristotle, *On the Soul* 405a19)

## Anaximander

1.

Anaximander was a pupil of Thales - Anaximander, son of Praxiades, a Milesian. He said that a certain infinite nature is first principle of the things that exist. From it come the heavens and the worlds in them. It is eternal and ageless, and it contains all the worlds. He speaks of time, since generation and existence and destruction are determinate.

Anaximander said that the infinite is principle and element of the things that exist, being the first to call it by the name of principle. In addition, there is an eternal motion in which the heavens come into being.

The earth is aloft, not supported by anything but resting where it is because of its equal distance from everything. Its shape is rounded, circular, like a stone pillar. Of its surfaces, we stand on one while the other is opposite. The heavenly bodies come into being as a circle of fire, separated off from the fire in the world and enclosed by air. There are certain tubular channels or breathing-holes through which the heavenly bodies appear; hence eclipses occur when the breathing-holes are blocked, and the moon appears sometimes waxing and sometimes waning according to whether the channels are blocked or open. The circle of the sun is twenty-seven times greater <than the earth and the circle> of the moon <is eighteen times greater>. The sun is highest, the circles of the fixed stars lowest.

Animals come into being <from moisture> evaporated by the sun. Humans originally resembled another type of animal, namely fish.

Winds come into being when the finest vapors of air are separated off, collect together and move. Rain comes from vapor sent up by the things beneath the sun. Lightning occurs when wind breaks out and parts the clouds.

He [Anaximander] was born in the third year of the forty-second Olympiad [610/609 BCE].

(Hippolytus, *Refutation of all Heresies* I vi 1-7)

2.

Of those who hold that the first principle is one, moving, and infinite, Anaximander, son of Praxiades, a Milesian, who was a successor and pupil of Thales, said that the infinite is principle and element of the things that exist. He was the first to introduce this word 'principle' <??>. He says that it is neither water nor any other of the so-called elements but some different infinite nature, from which all the heavens and the worlds in them come into being. And the things from which existing things come into being are also the things into which they are destroyed, in accordance with what must be. *For they give justice and reparation to one another for their injustice in accordance with the arrangement of time* [12 B 1] (he speaks of them in this way in somewhat poetical words). It is clear that he observed the change of the four elements into one another and was unwilling to make any one of them the underlying stuff but rather chose something else apart from them. He accounts for coming into being not by the alteration of the element, but by the separating off of the opposites by the eternal motion.

(Simplicius, *Commentary on the Physics*, 24.13)

## Heraclitus

1.

They say that Euripides gave [Socrates] a copy of Heraclitus' book and asked him what he thought of it. He replied: 'What I understand is splendid; and I think that what I don't understand is so too - but it would talk a Delian to get to the bottom of it.'

(Diogenes Laertius, *Lives of the Philosophers* II 22)

2.

At the beginning of his writings on nature, and pointing in some way at the environment, [Heraclitus] says:

*Of this account which holds forever men prove uncomprehending, both before hearing it and when first they have heard it. For although all things come about in accordance with this account, they are like tyros as they try the words and the deeds which I expound as I divide up each thing according to its nature and say how it is. Other men fail to notice what they do when they are awake, just as they forget what they do when asleep.* [B 1]

Having thus explicitly established that everything we do or think depends upon participation in the divine account, he continues and a little later on adds:

*For that reason you must follow what is common (i.e. what is universal - for 'common' means 'universal'). But although the account is common, most men live as though they had an understanding of their own.* [B 2]

(Sextus Empiricus, *Against the Mathematicians* VII 132)

3.

On the subject of the soul, Cleanthes sets out the doctrines of Zeno [the Stoic] in order to compare them to those of the other natural scientists. He says that Zeno, like Heraclitus, holds the soul to be a per-

ceptible exhalation. For, wanting to show that souls as they are exhaled always become new, he likened them to rivers, saying: *On those who enter the same rivers, ever different waters flow - and souls are exhaled from the moist things.* [B 12]

Now Zeno, like Heraclitus, says that the soul is an exhalation; but he holds that it is perceptible...

(Arius Didymus, fragment 39 Diels, quoted by Eusebius, *Preparation for the Gospel* XV xx 2)

4.

Heraclitus the Obscure theologizes the natural world as something unclear and to be conjectured about through symbols. He says: *Gods are mortal, humans immortal, living their death, dying their life.* [B 62]

And again:

*We step and do not step into the same rivers, we are and we are not.* [B 49a]

Everything he says about nature is enigmatic and allegorized.

(Heraclitus, *Homeric Questions* 24.3-5)

5.

For it is not possible to step twice into the same river, according to Heraclitus, nor to touch mortal substance twice in any condition: by the swiftness and speed of its change, it scatters and collects itself again - or rather, it is not again and later but simultaneously that it comes together and departs, approaches and retires. [B 91]

(Plutarch, *On the E at Delphi* 392B)

6.

Heraclitus says that the universe is divisible and indivisible, generated and ungenerated, mortal and immortal, Word and Eternity, Father and Son, God and Justice.

*Listening not to me but to the account, it is wise to agree that all things are one,* [B 50]

says Heraclitus. That everyone is ignorant of this and does not agree he states as follows:

*They do not comprehend how, in differing, it agrees with itself - a backward-turning connection, like that of a bow and a lyre.* [B 51]

That an account exists always, being the universe and eternal, he says in this way:

*Of this account which holds forever men prove uncomprehending, before before hearing it and when first they have heard it. For although all things come about in accordance with this account, they are like tyros as they try the words and the deeds which I expound as I divide up each thing according to its nature and say how it is.* [B 1]

That the universe is a child and an eternal king of all things for all eternity he states as follows:

*Eternity is a child at play, playing draughts: the kingdom is a child's.* [B 52]

That the father of everything that has come about is generated and ungenerated, creature and creator, we hear him saying:

*War is the father of all, king of all: some it shows as gods, some as men' some it makes slaves, others free.* [B 53]

... That God is unapparent, unseen, unknown to men, he says in these words:

*Unapparent connection is better than apparent.* [B 54]

He praises and admires the unknown and unseen part of his power above the known part. That he is visible to men and not undiscoverable he says in the following words:

*I honor more those things which are learned by sight and hearing,* [B 55]

he says - i.e. the visible more than the invisible. <The same> is learned from such words of his as these:

*Men have been deceived, he says, as to their knowledge of what is apparent in the same way that Homer was - and he was the wisest of all the Greeks. For some children who were killing lice deceived him*

*by saying: "What we saw and caught we leave behind, what we neither saw nor caught we take with us."* [B 56]

... Heraclitus says that dark and light, bad and good, are not different but one and the same. For example, he reproaches Hesiod for not knowing day and night - for day and night, he says, are one, expressing it thus:

*A teacher of most is Hesiod: they are sure he knows most who did not recognize day and night - for they are one.* [B 57]

... He says that the polluted and the pure are one and the same, and that the drinkable and the undrinkable are one and the same:

*The sea, he says, is most pure and most polluted water: for fish, drinkable and life-preserving; for men, undrinkable and death-dealing.* [B 61]

And he explicitly says that the immortal is mortal and the mortal immortal in the following words:

*Immortals are mortal, mortals immortals: living their death, dying their life.* [B 62]

He also speaks of a resurrection of this visible flesh in which we are born, and he is aware that god is the cause of this resurrection - he says:

*There they are said to rise up and to become wakeful guardians of the living and the dead.* [B 63]

And he says that a judgment of the world and of everything in it comes about through fire; for

Fire will come and judge and convict all things. [B 66]

He says that this fire is intelligent and the cause of the management of the universe, expressing it thus:

*The thunderbolt steers all things* [B 64]

(i.e. directs everything) - by 'the thunderbolt' he means the eternal fire, and he calls it need and satiety.[B 65] (The establishment of the world according to him being need and the conflagration satiety).

In the following passage he has set down all his own thought - and at the same time that of the sect of Noetus, whom I have briefly shown

to be a disciple not of Christ but of Heraclitus. For he says that the created universe is itself the maker and creator of itself:

*God is day and night, winter and summer, war and peace, satiety and famine; but he changes like olive oil which, when it is mixed with perfumes, gets its name from the scent of each.* [B 67]

(Hippolytus, *Refutation of All Heresies* IX ix 1-x 9)

7.

*Of those whose accounts I have heard, no-one has come so far as to recognize that the wise is set apart from all things.* [B 108]

*It is better to hide folly than to make it public.* [B 109]

*It is not good for me to get all they want.* [B 110]

*Sickness makes health sweet and good, hunger plenty, weariness rest.* [B 111]

*To be temperate is the greatest excellence. And wisdom is speaking the truth and acting with knowledge in accordance with nature.* [B 112]

*Thinking is common to all.* [B 113]

*Speaking with sense one should rely on what is common to all, as a city on its law and with yet greater reliance. For all human laws are nourished by the one divine; for it is as powerful as it wishes, and it suffices for all, and it prevails.* [B 114]

*Soul has a self-increasing account.* [B 115]

*All men can know themselves and be temperate.* [B 116]

*A man when he is drunk is led by a boy, stumbling, not knowing where he goes, his soul moist.* [B 117]

*A dry soul is wisest and best.* [B 118]

(Stobaeus, *Anthology* III i 174-180, v 6-8)

8.

Surely nature longs for the opposites and effects her harmony from them... That was also said by Heraclitus the Obscure:

*Combinations - wholes and not wholes, concurring differing, concordant discordant, from all things one and from one all things.* [B 10]

In this way the structure of the universe - I mean, of the heavens and earth and the whole world - was arranged by harmony through the blending of the most opposite principles.

([Aristotle], *On the World* 396b7-8, 20-25)

## Parmenides

(fragments from *The Way of Truth*)

*Never will this prevail, that what is not is:  
restrain your thought from this road of inquiry.  
And do not let custom, based on much experience, force you along  
this road,  
directing unobservant eye and echoing ear  
and tongue; but judge by reason the battle-hardened proof  
which I have spoken. Only one story, one road, now is left:  
That it is. And on this there are signs  
in plenty that, being, it is ungenerated and indestructible,  
whole, of one kind and unwavering, and complete.  
Nor was it, nor will it be, since now it is, all together,  
one, continuous. For what generation will you seek for it?  
How, whence, did it grow? That it came from what is not I shall not  
allow  
you to say or think - for it is not sayable or thinkable  
that it is not. And what need would have impelled it,  
later or earlier, to grow - if it began from nothing?  
Thus it must either altogether be or not be.  
Nor from what is will the strength of trust permit it  
to come to be anything apart from itself. For that reason  
Justice has not relaxed her fetters and let it come into being or per-  
ish,  
but she holds it. Decision in these matters lies in this:  
it is or it is not. But it has been decided, as is necessary,  
to leave the one road unthought and unnamed (for it is not a true  
road), and to take the other as being and being genuine.  
How might what is then perish? How might it come into being?  
For if it came into being it is not, nor is it if it is ever going to be.  
Thus generation is quenched and perishing unheard of.  
Nor is it divided, since it all alike is -  
neither more here (which would prevent it from cohering)  
nor less; but it is all full of what is.*

*Hence it is all continuous; for what is approaches what is.  
And unmoving in the limits of great chains it is beginningless  
and ceaseless, since generation and destruction  
have wandered far away, and true trust has thrust them off.  
The same and remaining in the same state, it lies by itself,  
and thus remains fixed there. For powerful necessity  
holds it enchained in a limit which hems it around,  
because it is right that what is should be not incomplete.  
For it is not lacking - if it were it would lack everything.  
The same thing are thinking and a thought that it is.  
For without what is, in which it has been expressed,  
you will not find thinking. For nothing either is or will be  
other than what is, since fate has fettered it  
to be whole and unmoving. Hence all things are a name  
which mortals lay down and trust to be true -  
coming into being and perishing, being and not being,  
and changing place and altering bright colour.  
And since there is a last limit, it is completed  
on all sides, like the bulk of a well-rounded ball,  
equal in every way from the middle. For it must not be at all greater  
or smaller here or there.  
For neither is there anything which is not, which might stop it from  
reaching  
its like, nor anything which is in such a way that it might be  
more here or less there than what is, since it all is, inviolate.  
Therefore, equal to itself on all sides, it lies uniformly in its limits.  
Here I cease for you my trustworthy argument and thought  
about the truth. Henceforward learn mortal opinions,  
listening to the deceitful arrangement of my words.*

(Compiled from texts by Plato, Sextus Empiricus, and Simplicius)

## Zeno

1.

Alexander says that the second argument, from the dichotomy, is Zeno's and that he claims that if what exists has magnitude and is divided, then it will be many and no longer one, thus proving that the one does not exist... Alexander seems to have taken his opinion that Zeno does away with the one from Eudemus's writings. For in his Physics Eudemus says:

Then does this not exist although some one thing does exist? That was the puzzle. They report that Zeno said that he would be able to talk about what exists if only someone would explain to him what on earth the one was. He was puzzled, it seems, because each perceptible item is called many things both by way of predication and by being divisible into parts, whereas points are nothing at all (for he thought that what neither increases when added nor decreases when subtracted was not an existent thing).

Now it is indeed likely that Zeno argued on both sides, by way of intellectual exercise (that is why he is called 'two-tongued') and that he actually published arguments of this sort to raise puzzles about the one. But in his treatise, which contains many arguments, he shows in each case that anyone who says that several things exist falls into inconsistencies.

There is one argument in which he shows that if several things exist they are both large and small - so large as to be infinite in magnitude, so small as to have no magnitude at all. Here he shows that what has no magnitude, no mass, and no bulk, does not even exist. For, he says,

*if it were added to anything else, it would not make it larger. For if it is of no magnitude but is added, [the other thing] cannot increase at all in magnitude. Thus what is added will therefore be nothing. And if when it is subtracted the other thing is no smaller - and will not increase when it is added again - then clearly what was added and subtracted was nothing.* [29 B 2]

Zeno says this not to do away with the one but in order to show that the several things each possess a magnitude - a magnitude which is actually infinite by virtue of the fact that, because of infinite divisibility, there is always something in front of whatever is taken. And he shows this having first shown that they possess no magnitude from the fact that each of the several things is the same as itself and one. (Themistius actually says that Zeno's argument established that what exists is one from the fact that it is continuous and indivisible; 'for if it were divided,' he says, 'it would not strictly speaking be one because of the infinite divisibility of bodies.' But Zeno seems rather to say that there do not exist several things.)

Porphyry holds that the argument from dichotomy belonged to Parmenides who attempted to show by it that what exists is one. He writes as follows:

Parmenides had another argument, the one based on dichotomy, which purports to show that what exists is one thing only and, moreover, partless and indivisible. For were it divisible, he says, let it have been cut in two - and then each of its parts in two. Since this goes on for ever, it is clear, he says, that either some final magnitudes will remain which are minimal and atomic and infinite in number, so that the whole thing will be constituted from infinitely many minima; or else it will disappear and be dissolved into nothing, and so be constituted from nothing. But these consequences are absurd. Therefore it will not be divided but will remain one. Again, since it is everywhere alike, if it is really divisible it will be divisible everywhere alike, and not divisible in one place and not another. Then let it have been divided everywhere. It is clear, again, that nothing will remain but that it will disappear; and if it is constituted at all, it will again be constituted from nothing. For if anything remains, it will not yet have been divided everywhere. Thus from these considerations too it is evident, he says, that what exists will be indivisible and partless and one...

Porphyry is right here to refer to the argument from dichotomy as introducing the indivisible one by way of the absurdity consequent upon division; but it is worth asking whether the argument is really Parmenides; rather than Zeno's, as Alexander thinks. For nothing of the sort is stated in the Parmenidian writings, and most scholars as-

cribe the argument from dichotomy to Zeno - indeed it is mentioned as Zeno's in Aristotle's work *On Motion* [i.e. *Physics* 239b9]. And why say more when it is actually found in Zeno's own treatise? For, showing that if several things exist the same things are finite and infinite, Zeno writes in the following words:

*If several things exist, it is necessary for them to be as many as they are, and neither more nor fewer. But if they are as many as they are, they will be finite. If several things exist, the things that exist are infinite. For there are always others between the things that exist, and again others between them. And in this way the things that exist are infinite.* [B 3]

And in this way he has proved infinity in quantity from the dichotomy. As for infinity in magnitude, he proved that earlier in the same argument. For having first proved that if what exists had no magnitude it would not even exist, he continues:

*But if it exists, it is necessary for each thing to have some bulk and magnitude, and for one part of it to be at a distance from the other. And the same argument applies to the protruding part. For that too will have a magnitude, and a part of it will protrude. Now it is all one to say this once and to say it for ever. For it will have no last part of such a sort that there is no longer one part in front of another. IN this way if there exist several things it is necessary for them to be both small and large - so small as not to have a magnitude, so large as to be infinite.* [B 1]

Perhaps, then, the argument from dichotomy is Zeno's, as Alexander holds, but he is not doing away with the one but rather with the many (by showing that those who hypothesize them are committed to inconsistencies) and is thus confirming Parmenides' argument that what exists is one.

(Simplicius, *Commentary on the Physics*  
138.3-6, 138.29-140.6, 140.18-141.11)

2.

Zeno argues fallaciously. For if, he says, everything is always at rest when it is in a space equal to itself, and if what is traveling is always

in such a space at any instant, then the traveling arrow is motionless. That is false; for time is not composed of indivisible instants - nor is any other magnitude.

Zeno's arguments about motion which provide trouble for those who try to resolve them are four in number.

The first maintains that nothing moves because what is traveling must first reach the half-way point before it reaches the end. We have discussed this earlier.

The second is the so-called Achilles. This maintains that the slower thing will never be caught when running by the fastest. For the pursuer must first reach the point from which the pursued set out, so that the slower must always be ahead of it. This is the same argument as the dichotomy, but it differs in that the additional magnitudes are not divided in half. Now it follows from the argument that the slower is not caught, and the same error is committed as in the dichotomy (in both arguments it follows that you do not reach the end if the magnitude is divided in a certain way - but here there is the additional point that not even the fastest runner in fiction will reach his goal when he pursues the slowest); hence the solution must also be the same. And it is false to claim that the one ahead is not caught: it is not caught while it is ahead, but nonetheless it is caught (provided you grant that they can cover a finite distance).

Those, then, are two of the arguments. The third is the one we have just stated, to the effect that the traveling arrow stands still. It depends on the assumption that time is composed of instants; for it that is not granted the inference will not go through.

The fourth is the argument about the bodies moving in the stadium from opposite directions, an equal number past an equal number; the one group starts from the end of the stadium, the other from the middle; and they move at equal speed. He thinks it follows that half the time is equal to its double. The fallacy consists in claiming that equal magnitudes moving at equal speeds, the one past a moving object and the other past a stationary object, travel for an equal length of time. But this is false.

For example, let the stationary equal bodies be AA; let BB be those beginning from the middle, equal in number and in magnitude to



them; and let CC be those beginning from the end, equal in number and in magnitude to them and equal in speed to the Bs. It follows that, as they move past one another, the first B and the first C are at the end at the same time. And it follows that the C has traveled past all of them but the B past half of them. Hence the time is half for each of the two is alongside each for an equal time. At the same time it follows that the first B has traveled past all the Cs; for the first C and the first B will be at opposite ends at the same time (being, as he says, alongside each of the Bs for a time equal to that for which it is alongside each of the As) - because both are alongside the As for an equal time. That is the argument, and it rests upon the falsity we have mentioned.

(Aristotle, *Physics* 239b5-240a18)

3. Zeno's argument assumes that it is impossible to traverse an infinite number of things, or to touch an infinite number of things individually, in a finite time. But this is false. For both lengths and times - and indeed all continua - are said to be infinite in two ways: either by division or in respect of their extremities. Now it is not possible to touch a quantitatively infinite number of things in a finite time, but it is possible so to touch things infinite by division. For time itself is infinite in this way. Hence it follows that what is infinite is traversed in an infinite and not in a finite time, and that the infinite things are touched at infinitely not at finitely many instants.

(Aristotle, *Physics* 233a21-31)

## Empedocles

1. According to Satyrus, Gorgias says that he himself was present when Empedocles performed magical deeds, and Empedocles himself professes as much - and much else beside - in his poems where he says:

*What drugs there are for ills and what help against old age  
you will learn, since for you alone shall I accomplish all this.  
And you will stop the power of the tireless winds which sweep over  
the earth*

*and destroy the crops with their breath,  
and again, if you wish, you will bring on compensating breezes.  
And after black rain you will produce a seasonable drought  
for men, and after the summer drought you will produce  
tree-nurturing streams which live in the ether.  
And you lead from Hades the power of dead men. [B 111]*

(Diogenes Laertius, *Lives of the Philosophers* VIII 60)

2. Such according to Empedocles is the generation and destruction of our world and its composition from good and evil. He says that there is also a third intelligible power which again can be made from these. He writes:

*For if you press them into your throbbing mind  
and watch over them in kindly fashion with pure attentions,  
these will indeed all remain with you throughout your life,  
and you will gain many others from them; for they themselves will  
increase  
each into its character as is the nature of each.  
But should you reach out for things of a different kind which among  
men  
are numberless and trifling and blunt their thoughts,  
they will leave you at once as time revolves,  
desiring to come to their own dear kind;*

*for know that they all have thought and a share of mind.* [B 110]

(Hippolytus, *Refutation of All Heresies* VII xxix 25-26)

3.

In the first book of his *Physics* Empedocles talks about the one and the finitely many and the periodic creation and generation and destruction by association and dissociation in the following way:

*I will tell a two-fold story. At one time they grew to be one alone from being many, and at another they grew apart again to be many from being one.*

*Double is the generation of mortal things, double their passing away: one is born and destroyed by the congregation of everything, the other is nurtured and flies apart as they grow apart again.*

*And these never cease their continual change, now coming together by Love all into one, now again all being carried apart by the hatred of Strife.*

*<Thus insofar as they have learned to become one from many> and again become many as the one grows apart, to that extent they come into being and have no lasting life;*

*but insofar as they never cease their continual change, to that extent they exist forever, unmoving in a circle.*

*But come, hear my words; for learning enlarges the mind.*

*As I said before when I revealed the limits of my words,*

*I will tell a two-fold story. At one time they grew to be one alone from being many, and at another they grew apart again to be many from being one -*

*fire and water and earth and the endless height of air, and cursed Strife apart from them, balanced in every way, and Love among them, equal in length and breadth.*

*Her you must regard with your mind: do not sit staring with your eyes.*

*She is thought to be innate also in the limbs of mortals, by whom they think thoughts of love and perform deeds of union, calling her Joy by name and Aphrodite,*

*whom no-one has seen whirling among them -*

*no mortal man. Listen to the course of my argument, which does not deceive:*

*these are all equal and of the same age, but they hold different offices and each has its own character; and in turn they come to power as time revolves.*

*And in addition to them nothing comes into being or ceases.*

*For if they were continually being destroyed they would no longer exist.*

*And what could increase this universe? and whence might it come?*

*And where indeed might it perish, since nothing is empty of them?*

*But these themselves exist, and passing through one another they become different at different times - and are ever and always the same.* [B 17]

Here he says that that which comes from many - from the four elements - is one, and he shows that it exists sometimes when Love is dominant and sometimes when Strife is. For that neither of these completely passes away, is shown by the fact that they are all equal and of the same age and that nothing comes into being in addition to them or ceases. The many from which the one derives are plural - for Love is not the one, since Strife too brings them into unity.

(Simplicius, *Commentary on the Physics* 31-32)

## Archelaus

1.  
Archelaus came from Athens or Miletus. His father was Apollodorus or, according to some, Midon. He was a pupil of Anaxagoras and a teacher of Socrates. He was the first to bring natural philosophy from Ionia to Athens, and he was called a natural philosopher - indeed natural philosophy actually ended with him, when Socrates introduced the subject of ethics. But he too seems to have touched upon ethics; for he philosophized about laws and about the noble and the just. (Socrates took this over from him and was supposed to have invented the subject because he developed it to its height.)  
He said that there are two causes of generation, hot and cold, and that animals were generated from the mud. And that things are just or ignoble not by nature but by convention.

(Diogenes Laertius, *Lives of the Philosophers* II 16)

## Democritus

1.  
I came to Athens and no one knew me.

(Diogenes Laertius, *Lives of the Philosophers* IX 36)

2.  
If the same atoms endure, being impassive, it is clear that [the Democriteans] too will say that the worlds are altered rather than destroyed - just as Empedocles and Heraclitus seem to think. An extract from Aristotle's work *On Democritus* will show what the view of these men was:

Democritus thinks that the nature of eternal things consists in small substances, infinite in quantity, and for them he posits a place, distinct from them and infinite in extent. He calls place by the names 'void', 'nothing', and 'infinite'; and each of the substances he calls 'thing', 'solid' and 'being'. He thinks that the substances are so small that they escape our senses, and that they possess all sorts of forms and all sorts of shapes and differences in magnitude. From them, as from elements, he was able to generate and compound visible and perceptible bodies. The atoms struggle and are carried about in the void because of their dissimilarities and the other differences mentioned, and as they are carried about they collide and are bounded together in a binding which makes them touch and be contiguous with one another but which does not genuinely produce any other single nature whatever from them; for it is utterly silly to think that two or more things could ever become one. He explains how the substances remain together in terms of the ways in which the bodies entangle with and grasp hold of one another; for some of them are uneven, some hooked, some concave, some convex, and others have innumerable other differences. So he thinks that they hold on to one another and remain together up to the time when some stronger force reaches them from their environment and shakes them and scatters them apart. He speaks of generation and of its contrary, dissolution,

not only in connection with animals but also in connection with plants and worlds - and in general with all perceptible bodies. [Aristotle, fragment 208]

(Simplicius, *Commentary on On the Heavens* 294.30-295.22)

3.

Democritus sometimes does away with what appears to the senses and says that nothing of this sort appears in truth but only in opinion, truth among the things that exist lying in the fact that there are atoms and void. For he says:

*By convention sweet and by convention bitter, by convention hot, by convention cold, by convention colour: in reality atoms and void.* [B 125]

That is to say, objects of perception are thought and believed to exist but they do not exist in truth - only atoms and void do.

In his *Buttresses*, although he undertakes to ascribe reliable power to the senses, he is found nonetheless condemning them. For he says:

*We in reality know nothing firmly but only as it changes in accordance with the condition of the body and of the things which enter it and of the things which resist it.* [B 9]

And again he says:

*That in reality we do not know how each thing is or is not has been shown in many ways.* [B 10]

And in *On Ideas* he says:

*And a man must recognize by this rule that he is removed from reality;* [B 6]

and again:

*This argument too shows that in reality we know nothing about anything, but our belief in each case is a changing of shape;* [B 7]

and again:

*Yet it will be clear that to know how each thing is in reality is a puzzle.* [B 8]

Now in these passages he does away in effect with all knowledge, even if it is only the senses which he explicitly attacks. But in the *Rules* he says that there are two forms of knowledge, one by way of the senses and the other by way of the understanding. The one by way of the understanding he calls genuine, ascribing reliability to it with regard to the discrimination of truth; the one by way of the senses he names dark, denying that it is unerring with regard to the discernment of what is true. These are his words:

*There are two forms of knowledge, one genuine and the other dark. To the dark belong all these: sight, hearing, smell, taste, touch. The dark, separated from this <...>.* [B 11a]

Then, setting the genuine above the dark, he continues thus:

*When the dark can no longer see more finely or hear or smell or taste or perceive by touch, \*but something finer\* <...>* [B 11b]

So according to Democritus, reason, which he calls genuine knowledge, is the standard of truth.

But Diotimus said that he supposed three standards: for the apprehension of what is unclear the standard is the apparent (for what appears is the sight of what is unclear, as Anaxagoras says - and Democritus praised him for this); for investigation, it is the concept ('for in every case, my friend, one principle is to know what the investigation is about' [Plato, *Phaedrus* 273B]); of course and avoidance, it is the passions - for that which we find congenial is to be chosen and that which we find alien is to be avoided.

(Sextus Empiricus, *Against the Mathematicians* VII 135-140)

4.

You cannot say that every impression is true, because of the reversal - as Democritus and Plato showed in their reply to Protagoras. For if every impression is true, then it will also be true that not every impression is true (since that is an impression), and thus it will be false that every impression is true.

(Sextus Empiricus, *Against the Mathematicians* VII 389-390)

5.

The dispute between body and soul over the passions seems to be an old one. Democritus, ascribing unhappiness to the soul, says:

*If the body were to take the soul to court for the pains and sufferings it had endured throughout its life, then if he were to be the jury for the case he would gladly cast his vote against the soul inasmuch as it had destroyed some parts of the body by negligence or dissipated them by drunkenness, and had ruined and ravaged other parts by its pursuits - just as he would blame the careless user if a tool or utensil were in a bad condition. [B 159]*

(Plutarch, *On Desire and Grief*)