

SOME REMARKS ON THE EARTH IN PLATO'S *PHAEDO*

INTRODUCTION: THE SPHERICITY OF THE EARTH IN THE *PHAEDO*

In Plato's *Phaedo* we have the earliest known exposition of the sphericity of the earth. However, this does not mean that he wanted to propose a completely new conception. Close reading of the relevant texts of the *Phaedo* reveals that the sphericity of the earth is not treated there as a new knowledge, but rather as an accepted fact. The text of 108 e 4–5 reads as follows:

πέπεισμαι τοίνυν, ἦ δ' ὄζ, ἐγὼ ὡς πρῶτον μὲν, εἰ ἔστιν ἐν μέσῳ τῷ οὐρανῷ περιφερῆς οὔσα (sc. ἡ γῆ)

I am convinced', he said, 'in the first place that, if the earth is spherical (...).

Harold Cherniss has pointed to the fact that here the sphericity of the earth "is expressed in a subordinate clause as the accepted fact on which depends the notion of equilibrium at the center".¹ If Plato had wanted Socrates to introduce the sphericity of the earth as a completely new theory, he would have let him say something like: "I am convinced that the earth is spherical". But already earlier, at 97 d, when Socrates wonders if Anaxagoras could have told him whether the earth is flat or round (meaning spherical), this obviously presupposes an already ongoing discussion between these two theories, both of which had their defenders, and with both of which Anaxagoras was acquainted.² Moreover, if Plato really had wanted to put forward the spherical earth as an entirely new theory, he could not have dispensed with some sort of proof. This is, however, completely absent in the *Phaedo*, as it is elsewhere in Plato's oeuvre. The same holds for an answer to the question – which is not even posed in the *Phaedo* – why we (or at least our antipodes) do not fall off the spherical earth.

Who was the first Greek to teach the sphericity of the earth is a much discussed question. Since ancient times, the ambiguity of the word στρογγύλος plays a certain part in this debate. When Socrates, at *Phaedo* 97 d–e,

¹ H. Cherniss, *Aristotle's Criticism of Presocratic Philosophy* (New York 1964) 395. See also: L. Tarán, *Parmenides* (Princeton etc. 1965) 296–297.

² D. Panchenko ("Anaxagoras' Argument Against the Sphericity of the Earth", *Hyperboreus* 3 [1997]: 1, 175–178) has convincingly shown that Anaxagoras was familiar with the idea of the sphericity of the earth and argued against it.

wonders what the shape of the earth is, Plato uses the word *στρογγύλος*. It is precisely the ambiguity of this word that made some scholars deny that Plato was advocating here the sphericity of the earth.³ We do not have to repeat in detail the refutations of this interpretation.⁴ The main arguments are: (1) in 97 d–e, *στρογγύλη* ('round') opposed to *πλατεῖα* ('flat') must mean 'spherical', not 'disk-like'.⁵ (2) Plato's assertion that, seen from above, the earth looks like a twelve-paneled sphere (*ὡσπερ αἱ δωδεκάσκυτοι σφαῖραι*, 110 b 6–7) by itself should be enough to discount the theory that Plato adhered to the Ionian view of the earth as a disk.⁶ (3) Socrates' argument, at 108 e–109 a, that the earth needs nothing to support it than its 'equiformity' (*ὁμοιότης*) and 'equilibrium' (*ἰσορροπία*) presupposes its sphericity.⁷ (4) In an unequivocal context (and it is argued in 1–3 that this is the case), the normal Greek word for 'spherical' is *στρογγύλος* ('round'). In English too the earth is commonly called 'round', rather than 'spherical'. (5) Finally, the whole dramatic and serious context – Socrates' last words on his dying-bed – involves that Socrates would not have uttered something trivial like the earth being flat and round, as it is conceived already in Homer.

Anaximander and the shape of the earth

The ambiguity of the word *στρογγύλος* has obscured the discussion of the earth's shape almost from the beginning. Most scholars agree that Anaximander conceived the earth like a column-drum.⁸ Diogenes Laërtius, how-

³ T. G. Rosenmeyer, "*Phaedo* 111 c 4 ff.," *CIQ* 6 (1956) 193–197. J. S. Morrison, "The Shape of the Earth in Plato's *Phaedo*," *Phronesis* 4 (1959) 101–119. D. Fehling, "Das Problem der Geschichte des griechischen Weltmodells vor Aristoteles," *RhM* 128 (1985) 195–231.

⁴ See e. g. W. M. Calder III, "The Spherical Earth in Plato's *Phaedo*," *Phronesis* 3 (1958) 121–125; W. J. Verdenius, "Notes on Plato's *Phaedo*," *Mnemosyne* 11 (1958) 192–243; D. R. Dicks, *Early Greek Astronomy to Aristotle* (Ithaca – New York 1970) 98–99.

⁵ Cf.: Ch. H. Kahn, *Anaximander and the Origins of Greek Cosmology* (New York 1960) 118.

⁶ Cf. Dicks (n. 4) 98.

⁷ Why Ebert holds that also a cylinder or a cone would answer the description, I do not understand. See: Th. Ebert, *Platon. Phaidon. Übersetzung und Kommentar* (Göttingen 2004) 435: "Was Sokrates hier sagt, trifft nicht nur auf kugelförmige Gegenstände zu. Auch ein Zylinder oder ein Kegel würde dieser Beschreibung entsprechen".

⁸ Actually, this interpretation is the combination of three rather corrupted texts. In two of them, the shape of the earth is said to be like a column of stone, and in the third

ever, ascribes the sphericity of the earth to Anaximander, calling it σφαιροειδής (D. L., 2. 1 = DK 12 A 1). It is generally accepted that he was confused here. Recently, I have argued that Diogenes must have been victim of the fallacy of anachronism, as he simply was not able to imagine that anyone could believe the earth to be something other than a sphere.⁹ In reaction to this, Daniel Graham suggested, that Diogenes was confused between Anaximander and Anaxagoras.¹⁰ This suggestion does not help, however, as Anaxagoras did not teach the sphericity of the earth either.¹¹

As an alternative explanation I would like to recall to a suggestion, made by Erich Frank as early as 1923: perhaps Diogenes was misled by the ambiguity of the word στρογγύλος, which, as we have seen, may mean both ‘circular’ and ‘spherical’. After having shown how Theophrastus’ indication of Parmenides’ earth by the word στρογγύλος has been mistaken by a later doxographer to mean ‘spherical’, Frank writes: “Durch dasselbe Mißverständnis kommt wahrscheinlich auch Anaximander zu dieser unverdienten Ehre”.¹² The shape of the earth according to Anaximander is described by Hippolytus, in a text that goes also back to Theophrastus,¹³ by the word στρογγύλος (DK 12 A 11 [3]). Frank’s denial of the sphericity of the earth as a doctrine taught by Parmenides has been contested.¹⁴ However this may be, we may imagine how Diogenes, reading the same word for Anaximander’s earth as was used by Theophrastus in the case of Parmenides (στρογγύλος), must have thought that ‘spherical’ was meant. So he replaced it wrongly by σφαιροειδής.

it is said to be cylindrical, its height being three times its diameter. See DK 12 A 11, 25, and 10.

⁹ D. L. Couprie e. a., *Anaximander in Context* (Albany 2003) 174.

¹⁰ D. W. Graham, “Review of ‘Anaximander in Context’”, *Ancient Philosophy* 24 (2004) 453.

¹¹ See DK 59 A 42 (5). Jørgen Mejer, to whom Graham refers, does not include the sphericity of the earth into his suggestion of a confusion between Anaximander and Anaxagoras. He confines it to the next lines (put between brackets in DK 12 A 1), which are on the light of the moon and the size of the sun, and which certainly belong to Anaxagoras. See: J. Mejer, *Diogenes Laërtius and his Hellenistic Background* (Wiesbaden 1978) 22 and 26.

¹² Cf. E. Frank, *Plato und die sogenannten Pythagoreer. Ein Kapitel aus der Geschichte des griechischen Geistes* (Halle 1923) 200. See also: Kahn (n. 5) 56.

¹³ Cf. Kahn (n. 5) 15: “All of the information which this author (sc. Hippolytus) gives us concerning Anaximander (...) comes from Theophrastus and from no other source”.

¹⁴ See, e. g., Cherniss (n. 1) 395, and W. Burkert, *Weisheit und Wissenschaft. Studien zu Pythagoras, Philolaos und Platon* (Nürnberg 1962) 283–284.

As a matter of fact, it was neither Anaximander nor, according to most scholars, Parmenides who was the originator of the concept of a spherical earth. Frank's thorough investigation into Plato and the so-called Pythagoreans pointed to Archytas as the most likely candidate, although his conclusions, as already said, have been challenged.¹⁵ However, I will not speculate further about who was the first to hold the earth to be spherical, but return to the *Phaedo*.

Socrates' proof of the stability of the earth

Socrates explicitly refrains from what he had asked from Anaxagoras at 97 d–e, to wit the answer to the question why it is better for the earth to be spherical. At 108 d he gives as a reason for this that it would take more time than he had left before he had to drink the poisoned cup. We may understand his problem when we see how Aristotle, in his *De caelo*, still has difficulties in fighting some empirical arguments for a flat earth, which he overcomes at last by means of a metaphysical argument: the sphere is the natural shape for a body that, consisting of the heaviest element, is amassed at its natural place, which is below, and in a spherical universe this means: at the center of that universe (Arist. *De caelo* 2. 13–14). This typically Aristotelian argument Socrates of course did not know. So one can imagine that to counterargue the defenders of a flat earth would have taken more time than the few hours that were left before his death.

Socrates does offer a solution, however, to the other question he had expected Anaxagoras to answer, viz. why it is better for the earth to be at the center of the universe (at 108 e–109 a). This question has become urgent since Anaximander had proclaimed that the earth floats unsupported in space. As is clear from Aristotle's discussion in *De caelo*, this question is equivalent to: why does the earth not fall.¹⁶ In conformity with his demands for a really philosophical answer, the solution offered by Socrates is, that the earth, being at the center of the universe, has no reason to go elsewhere. This answer clearly is meant to be opposed to solutions in physical terms, such as that the earth does not fall because it is supported by air or kept in its place by a vortex. With his solution, Socrates wants to prove that "mind is the king of heaven and earth", as Plato expresses it later, at *Philebus* 28 c 7–8. It is almost tragical, however, that the argument, put into the mouth of the

¹⁵ See note 14.

¹⁶ Cf. Fehling (n. 3) 224: "...daß es Aristoteles in *De caelo* gar nicht um die Weltbau geht, sondern nur um die Frage, warum die Erde nicht fällt".

dying Socrates, is fallacious, for the simple reason that the earth is not at the center of the universe. Aristotle, who ascribes the argument to Anaximander but is evidently arguing with the text of the *Phaedo*, ridicules it by saying that for the same reason a hair, on which was pulled from all sides with equal strength, would not break (Arist. *De caelo* 295 b 31). Ironically, however, his own argument why the earth rests at the center of the universe was equally false, and for the same reason.

The dodecahedron-shaped earth

After having stated, at 108 e 4–5, that the earth is spherical (περιφερής), at 110 b 6–7 Plato compares it with a multi-colored ball, made of twelve pieces of leather. Although he does not mention the shape of those pieces, it is commonly accepted that he has in mind the dodecahedron, which is the fifth of the so-called Platonic bodies, consisting of twelve regular pentagons, as can be seen on the picture below.¹⁷

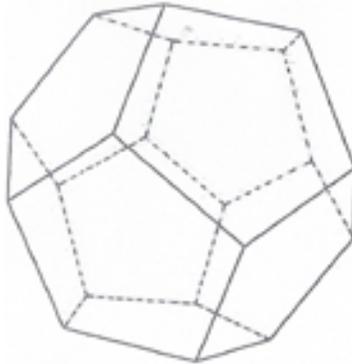


Figure 1: a dodecahedron

A leather dodecahedron, stuffed like the balls that Socrates mentions, or inflated like the one that lies on my desk, makes a rather perfect sphere. This is how Theodor Ebert understands the comparison, when he says that the

¹⁷ In the *Timaeus* 55 c, the dodecahedron is reserved for the shape of the universe as a whole, whereas the other regular bodies (tetrahedron, octahedron, icosahedron, cube) make up the elements (fire, air, water, and earth respectively). One may wonder, by the way, why Plato did not designate the cubical shape to the earth, which consists predominantly of the element earth.

pentagons which build the faces of this dodecahedron must not be thought of as flat, but as curved.¹⁸ And this is obviously also how most commentaries tacitly understand it, without paying further attention to it.¹⁹ The illustration below may elucidate this interpretation, which I believe to be only partially right, as will be explained hereafter.



Figure 2: a dodecahedron blown up onto a sphere (front view)

Scholars like Baensch, Fehling, Frank, and Friedländer, who have tried to visualize Plato's earth, completely ignore the image of the dodecahedron.²⁰ It seems to me, however, that Plato's comparison of the earth with a dodecahedron is not just incidental. From the *Timaeus* it is clear, that to Plato the regular bodies are very special mathematical objects. When he uses the dodecahedron, then, for his description of the shape of the earth, he must have done so intentionally. Moreover, he must have realized that a dodecahedron is the regular polyhedron that comes closest to a sphere, but that, of course, it *is not* a sphere. The dodecahedron is, so to speak, a sphere with excavated or cut out dents or hollows. This is exactly the way Plato, just before introducing the comparison of the ball of twelve pieces, describes the earth: "all over the world, there are

¹⁸ Ebert (n. 7) 438.

¹⁹ Just a few examples: J. Burnet, *Plato's Phaedo* (Oxford 1956 [1911]) 109 note at 110 b 6; Dicks (n. 4) 232 n. 122; H. Tredennick, *Plato. The Last Days of Socrates* (London 1953) 168 n. 54; L. Robin (ed.), *Platon. Oeuvres Complètes IV, 1 Phédon* (Paris 1963) 89 n. 3.

²⁰ O. Baensch, "Die Schilderung der Unterwelt in Platons *Phaidon*". *Archiv für Geschichte der Philosophie* 16 (1903) 190; Fehling (n. 3) 197; Frank (n. 12) 24; P. Friedländer, "Die Anfänge der Kugelgeographie", *JDAI* 29 (1914) 99 and 104.

many hollows” (109 b 5). As far as I know, nobody has drawn the simple consequence that those hollows must be the twelve pentagonal faces of the dodecahedron.²¹

Perhaps one reason why this has remained unnoticed is, that Plato speaks of “many hollows”, whereas a dodecahedron has only twelve faces. One must remember, however, that at 109 b 5 Plato is introducing the notion of hollows or cavities and has not yet spoken of the shape of the earth as a dodecahedron, which is only introduced at 110 b. Therefore, at 109 b 5, he still speaks rather vaguely of “many” hollows. Another reason why nobody has identified Plato’s hollows in the earth with the dents that make the difference between a dodecahedron and a sphere, might be that the sentence just quoted is followed by the words: “... of all sorts of shape and size”. And elsewhere (111 c 5 – d 2): “... and in the earth, in the cavities all over its surface, are many regions, some deeper and wider than that in which we live, others deeper but with a narrower opening than ours, while others again are shallower than this and broader”. This seems hardly applicable to a dodecahedron, which consists of identical regular pentagons. I think, however, that we have to read these words keeping in mind the description of our part of the earth – one of those hollows – which is given at 109 a 9 – b 4: “... it (sc. the earth) is very big ... and ... we who live between the Phasis river and the pillars of Hercules inhabit only a small part of it, living round the coast of the sea like ants or frogs by a pond, while many others live elsewhere, in many similar regions”. Of course, the other regions are not all shaped like the lands around the Mediterranean Sea, but they are, so to speak, “filled up” in different ways by lands and seas. In that sense, they will show “different shapes and sizes”, some being “deeper and wider”, others “shallower and broader”.

We might say that Plato, as the discussion on the shape of the earth is concerned, uses the image of the dodecahedron in order to illustrate the combined ideas of a flat earth (any face of the dodecahedron) and that of a spherical earth (the entire dodecahedron).²² The dodecahedron however, as

²¹ One might object that κοῖλος usually means something concave, whereas the surfaces of the pentagons of the dodecahedron are flat. My guess is, however, that in this context the word indicates the twelve pentagonal excavations cut out of the circumscribed sphere (cf. Figure 3 p. 9 below). Moreover, the flatness of these surfaces has not to be taken too literally. Just as in the case of a spherical surface of the earth, an irregular surface with mountains, valleys, and seas is meant.

²² A dodecahedron with circular openings in the pentagons, dated ca. 200 BC, which is preserved in the Rheinisches Landesmuseum in Bonn, unintentionally illus-

said before, is not a perfect sphere. My guess is that the dodecahedron represents the shape of the empirical or apparent earth, whereas the sphere represents the shape of what Plato calls the real earth. How these two shapes are interrelated will become clearer soon, after we have discussed another textual problem.

The one who lives at the bottom of the sea

The shape of the earth is also at stake at the description of the apparent and the real earth at 109 b ff. Let us first look at the strange passage where Plato compares us – the dwellers of the hollow that is formed by the basin of the Mediterranean Sea – with “someone who lives in the middle of the bottom of the sea (who) would believe to live upon the surface of the sea” (109 c 5–6). As far as I know, nobody has noticed that something is wrong with this text. First of all, how do we have to imagine someone who lives under water to think that he lives at the surface of the water (οἷοιτό τε ἐπὶ τῆς θαλάττης οἰκεῖν)? Secondly, the comparison does not fit. Plato compares us, who live at the bottom of the air-sea, with a man who lives at the bottom of the water-sea. We believe that the air is the sky, just as the sea-dweller believes that the sea is the sky. He does not notice that the sky, in which the celestial bodies move, is above the surface of the sea. In the same way we have no idea that the real sky is above the surface of what we call the sky, but which is only the air. So far so good. We do not believe, however, that we live at the surface of our air-sea, as the parallel with the sea-dweller would require, but we assume that we live at the surface of the earth (οἷεσθαι ἄνω ἐπὶ τῆς γῆς οἰκεῖν). Something has gone wrong here.

Rather than thinking that Plato had a black-out, I would suggest to omit the clause οἷοιτό τε ἐπὶ τῆς θαλάττης οἰκεῖν καὶ at 109 c 5–6, which looks to me as the insertion of a copyist, who unsuccessfully tried to improve the text. This would also do with the somewhat awkward repetition of words: πελάγους – θαλάττης – ὕδατος – θάλατταν, and also οἷοιτο – ἦγοῖτο. What remains makes perfect sense and contains the comparison Plato must have thought of. The passage in question, then, will read like this: “We do not realize that we are living in the earth’s hollows, and suppose that we are living up above the top of the earth, just as if someone

trates Plato’s image very nicely. See: M. Emmer (ed.), *The Visual Mind. Art and Mathematics* (Cambridge, Mass. 1993) 216.

living in the middle of the sea, noticing the sun and the stars through the water, were to imagine that the sea was the sky”.

Dodecahedron and sphere

The consequence of the simile used by Socrates is that what we call the sky must have a surface itself, separating the air and the ether (109 b 9), just like the sea, as we know, has a surface, which separates the sea and the air, although the dweller at the bottom of the sea is unaware of it. The intention of the comparison is that what we think to be the sky is only the air, and not the real sky, which is the ether (αἰθήρ) in which the celestial bodies move. If someone could climb out of our cavity and pop his head above the surface of the air (above the surface of our air-sea, so to speak), he would watch the real sky and the real earth (ἡ ὡς ἀληθῶς γῆ, cf. 110 a 1). What would this real earth look like? Let us return to the image of the dodecahedron. If I am right that the cavities of which Plato speaks are the twelve pentagonal faces of the dodecahedron, then the easiest way to outline the surface of the air which separates it from the heavens, is the sphere that can be circumscribed around the dodecahedron. The picture below may illustrate this. Every pentagon, that is: every cavity of the earth, would have its own curved cover of air, as is easiest seen at the pentagon on top of figure 3.²³

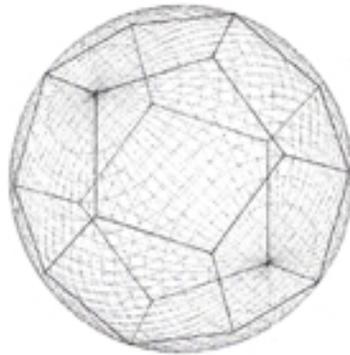


Figure 3: A dodecahedron-shaped earth with a spherical cover of air

²³ I am very much indebted to Ton Lecluse, who made this picture according to my instructions.

The real earth, then, will look like a sphere, on which, so to speak, the seams of the pentagonal panels are visible, just as is the case with the balls of which Plato speaks. The dwellers on the real earth, then, live around our air-sea and around that of the other hollows, just as we live like frogs around the sea (109 b 3). We may even imagine that some live more inland, where the seams between the pentagonal panels are rather broad. How we have to imagine the “islands encompassed by air near the mainland” (111 a 6–7), where some people live on the real earth, has been visualized very nicely by Friedländer.²⁴

The faces of the dodecahedron will also show some different colors, as Plato describes in 110 c. Apparently, we have to imagine looking at the real earth (ἡ ὧς ἀληθῶς γῆ) from above. Our eye, as it were, penetrates the air above the several cavities of the earth. Some of the hollows to the north of our region will show a bright whiteness, as they are covered with snow and ice, whereas those to the south, which are burnt by the sun will look purple and golden. The result might be, as Burnet suggests at 110 b 7: “Each of the twelve pentagons has its own color”.²⁵ Thus, the whole looks like a multi-colored ball.

The cavities in the earth and the allegory of the cave

Many authors have noticed the resemblance of Plato's description of the cavities in the earth with the allegory of the cave in his *Republic* 514 a ff. Few, however, have tried to work out this correspondence. Perceval Frutiger has printed both allegories in two columns next to each other.²⁶ As such, however, this does not say very much. The main difficulty is, that the allegory of the cave is a parable from the beginning to the end. It is, so to speak, the tale of a spiritual journey. The story of the earth-dwellers in the *Phaedo*, on the contrary, is, at least partially, meant as the empirical truth about the earth. This ambiguity is the main source of the differences between the two similes.

Some authors seem to believe that the parallels between the two stories consist of the description of three analogous levels. In the allegory of the cave we have the men who are chained and look at the wall, then the people who carry puppets behind their backs, and finally the people out-

²⁴ Friedländer (n. 20) 99 Abb. 2.

²⁵ J. Burnet (n. 19) 132. See also Calder (n. 4) 123.

²⁶ P. Frutiger, *Les mythes de Platon. Étude philosophique et littéraire* (Paris 1928) 64–65.

side the cave. Correspondingly, they say, in the exposition of the cavities of the earth we have the person at the bottom of the sea, then the people above the sea at the bottom of their cavity, and finally the people above the air on the real earth.²⁷

I think this rendering is a misunderstanding of Plato's intention in the *Phaedo*. The alleged person at the bottom of the sea is introduced by Plato not as a separate level of existence, but as nothing else than a comparison to make clear the position of our own existence within one of the hollows of the earth. In a similar way, the ants and frogs that live around a pound are introduced at 109 b in order to explain how we live around the shores of the Mediterranean Sea, and not as a separate level of existence. Moreover, in this interpretation the inhabitants of the other cavities do not play a separate role, whereas at 109 b they are introduced as an important part of the description of the earth.

Let us look at both stories somewhat more precisely. The starting point of the allegory of the cave in the *Republic* is the people that are chained and look at the wall. They obviously correspond to the people in the *Phaedo* that live in the cavity which is formed by the Mediterranean basin. The second step is, that we have to learn that our hollow is just one of many cavities on the earth, in other words, that we are not alone. This corresponds to the discovery of the prisoners in the cave who see, when they are unchained, that they are not alone, but that behind their backs other people live, who throw the images on the wall that was before them. The people they meet behind the wall live in the cave as well. The other people in the *Phaedo* also live in cavities, just like we, albeit this time in other cavities, behind the mountains that surround our cavity. The final step in the *Phaedo* is that we have to realize that the real earth is beyond the air, which we would see if we were able to climb to the air's surface or to grow wings. This parallels the real earth which is seen by the one who, in the allegory of the cave, manages to climb out of the cave. Perhaps a little diagram may elucidate the correspondences:

²⁷ So e. g. J.-F. Pradeau, "Le monde terrestre. Le modèle cosmologique du mythe final du 'Phédon'", *Revue Philosophique de la France et de l'Étranger* 121 (1996) 84: "C'est le sens de la comparaison tripartite (la partie pure de la terre, notre partie, celle, marine, des poissons; où chacun habite le ciel et de celui qui lui succède ...". Another example is D. Clay, "The Art of Glaukos (Plato's *Phaedo* 108 d 4–9), *AJPh* 106 (1985) 230: "We are to the region that lies above us as fish (!) are to humans dwelling above the sea". See also M. G. J. Beets, *From Time to Eternity. A Companion to Plato's Phaedo* (Baarn, 2003) 256.

the apparent and the real earth in the <i>Phaedo</i>	the allegory of the cave in the <i>Republic</i>
the people that live in one of the cavities of the earth	the chained people in the cave
the people that live elsewhere in other cavities	the people elsewhere in the cave, behind the wall
the people that live above the air of the cavities, on the surface of the real earth	the people outside the cave that live on the surface of the earth

The apparent and the real earth

One may differ in opinion as to the question, where in the *Phaedo* the description of the empirical earth ends and the mythical story begins. There is, after all, a general agreement that the description of the subterranean rivers and of the Tartarus at 111 d ff. is no longer meant as an empirical description of the earth. Plato ends this discussion with the words: "No man of sense should affirm decisively that all this is exactly as I have described it" (114 d 1–2). But how much of this judgment also bears upon the foregoing description of the earth is unclear. According to Detlev Fehling, the whole description of the shape of the earth in the *Phaedo* is mythological.²⁸ And also Perceval Frutiger holds that the passage 108 c – 113 c as a whole is mythical.²⁹

I think that the most natural way to read the text is to acknowledge that it is embedded in an eschatological context (107 d 5–108 c 5 and 113 d 1–114 c 9), concerning the fate of the soul after death and its journey into Hades and from there to its appropriate place. Within this context it is evident that the 'real earth', above the air-see, belongs to the mythical part of the story. It is said with so many words, that this place is also the destination of the souls of those who have lived exceptionally good lives (114 b). I maintain, however, that the description of the cavity in which we live, the other cavities in which other people live, as well as the shape of the earth as expressed by the image of the dodecahedron, are meant as a description of what we would call the empirical earth. Plato's point is, however, that the empirical earth, which people are inclined to call the real earth, is only the apparent earth. His description of the empirical earth is subordinated to the

²⁸ See Fehling (n. 3) 196: "Die 'Erde' Platos ist also nicht nur in der Form eines Mythos dargestellt, sie ist auch etwas rein Mythisches, ja Jenseitiges".

²⁹ Frutiger (n. 26) 61 ff.

mythical story about the soul's journey after death, in which also the description of the 'real' earth above the air takes its place. This 'real' earth, which we would rather call 'mythical', is Plato's spherical earth.

One may wonder why Socrates in his last hours, after the discussion has been on such a highly relevant subject as the immortality of the soul, wants to explain his vision of the earth's shape. I think that Plato had at least two reasons to put these words into Socrates' mouth on this solemn occasion. The first is, that he makes explicit by his argument why the earth is at the center of the universe, that "mind is the king of heaven and earth" (*Phileb.* 28 c 7–8). The second reason is, that Plato, as an homage to his teacher Socrates, makes him pronounce at his death-bed the first version of the famous allegory that constitutes the very core of his own philosophy. The dramatic setting of the *Phaedo* excludes that the tale about the earth is just a facetious previous stage ("eine humoristische Vorstufe") of the allegory of the cave, as Kurt von Fritz holds.³⁰

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Платон в "Федоне" использует образ двенадцатигранника, объясняя форму Земли. Обычно этот пассаж встречает недопонимание и недооценку. В статье доказывается, что слова о Земле в форме двенадцатигранника надо понимать буквально. Каждая из его пятиугольных поверхностей может рассматриваться как впадина в Земле, покрытая воздухом; одна из них – бассейн Средиземного моря. Каждая такая впадина, согласно Платону, представляет собой единственно видимую ее обитателями часть Земли. Сферическая поверхность истинной Земли складывается из всех таких впадин с их воздушным покрытием.

Жителей впадины Платон сравнивает с обитателями морского дна. В статье предлагается эмендация пассажа 109 с 5–6 (атетеза слов οἰοῦτό τε ἐπὶ τῆς θαλάττης οἰκεῖν καὶ), в результате которой текст становится яснее.

Пассаж об истинной и видимой Земле имеет нечто общее с аллегорическим рассказом о пещере в "Государстве". Для лучшего понимания текста следует учитывать, что люди из других впадин в "Федоне" аналогичны людям за спиной у пленников в рассказе о пещере.

³⁰ K. von Fritz, *Grundprobleme der Geschichte der antiken Wissenschaft* (Berlin – New York 1971) 150.