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Edited by Graziano Ranocchia Christoph Helmig Christoph Horn

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Abbreviations

This list contains the abbreviations used in this volume to refer to ancient authors and their works, and to collections of fragments. In the case of authors of a single work references, as a rule, are by author's name only.

Achilles			
	Isag.	Introductio in Aratum	
Aët.	Aëtius		
Anon.			
	In Cat.	Anonymi in Aristotelis Categorias commentarium	
Ar. Did.	Arius Didymus		
Arist.	Aristoteles		
	An. Post.	Analytica posteriora	
	Cael.	De caelo	
	Cat.	Categoriae	
	de An.	De anima	
	GA	De generatione animalium	
	GC	De generatione et corruptione	
	Metaph.	Metaphysica	
	Meteor.	Meteorologica	
	Phys.	Physica	
	Resp.	De respiratione	
	Тор.	Торіса	
[Arist.]	Pseudo-Aristoteles		
	Mund.	De mundo	
	MXG	De Melisso Xenophane et Gorgia	
Arr.	G. Arrighetti (ed.), <i>Epicuro. Opere</i> , Torino (1973 ²).		
Aug.	Augustinus		
	CD	De civitate Dei	
CAG	Commentaria in Aristotelem Graeca, Prussian Academy series,		
	(1882–)		
CAR	E. Maass (ed.), Commentariorum in Aratum reliquiae, Berlin (1898)		
Cat.	Catullus		
Cicero			
	Ac.	Academica	
	De orat.	De oratore	
	Fat.	De fato	
	Fin.	De finibus	

	Inv.	De inventione		
	Mur.	Pro Murena		
	ND	De natura deorum		
	Тор.	Торіса		
Cleom.	Cleomedes			
	Cael.	De motu circulari corporum caelestium		
DG	H. Diels (ed.), Doxographi Graeci, Berlin (1879).			
DK.	H. Diels / W. Kranz (eds.) , Die Fragmente der Vorsokratiker, 3			
	vols., Berlin (1951–1952 ⁶)			
D.L.	Diogenes Laërtius			
Demetr. Lac.	Demetrius Lacon			
EK.	L. Edelstein / I.G. Kidd (eds.), Posidonius, vol. 1: The Fragments,			
	Cambridge (1989 ²)			
Epic.	Epicurus			
	Ep. Hdt.	Epistula ad Herodotum		
	Ep. Pyth.	Epistula ad Pythoclem		
	KD	Kyriai doxai		
	Nat.	De natura		
Eus.	Eusebius			
	PE	Praeparatio evangelica		
FDS	KH. Hülser (ed.), Die Fragmente zur Dialektik der Stoiker, 4 vols.,			
	Stuttgart (1987–1988)			
FHSG	W.W. Fortenbaugh / P.M. Huby / R.W. Sharples / D. Gutas (eds.),			
	Theophrastus of Eresus. Sources for his Life, Writings, Thought			
	and Influence, 2 vols., Leiden (1992)			
Gal.	Galenus			
	Loc. aff.	De locis affectis		
	Pecc. dig.	De cuiuslibet animi peccatorum dignotione et cura-		
		tione		
	PHP	De placitis Hippocratis et Platonis		
	Qual. incorp.	Quod qualitates incorporeae sint		
[Gal.]	Pseudo-Galenus			
	Hist. phil.	Historia philosopha		
Hero				
	Pneum.	Pneumatica		
Hes.	Hesiodus			
	Theog.	Theogonia		
Lucil.	Lucilius			
Lucr.	Lucretius			

Phil.	Philo Alexandrinus			
	Ebr.	De ebrietate		
Phld.	Philodemus			
	Adv.	Adversus []		
	<i>D</i> .	De dis		
	Rhet.	De rhetorica		
	Sign.	De signis		
	Stoic. hist.	Stoicorum historia		
Phlp.	Philoponus			
	Cat.	In Aristotelis Categorias commentarium		
	Ph.	In Aristotelis Physica commentaria		
Phot.	Photius			
	Bibl.	Bibliotheca		
Plato				
	Tim.	Timaeus		
Plaut.	Plautus			
	Merc.	Mercator		
	Stich.	Stichus		
Plu.	Plutarchus			
	Col.	Adversus Colotem		
	Stoic. rep.	De Stoicorum repugnantiis		
[Plu.]	Pseudo-Plutarchus			
	Plac.	Placita philosophorum		
Posidon.	Posidonius			
Psellus				
	Omnif. doctr.	De omnifaria doctrina		
Sen.	Seneca			
	QN	Quaestiones naturales		
S.E.	Sextus Empiricus			
	M	Adversus mathematicos		
	PH	Pyrrhoniae hypotyposes		
Simp.	Simplicius			
	Cael.	In Aristotelis De caelo commentaria		
	Cat.	In Aristotelis Categorias commentarium		
	Ph.	In Aristotelis Physica commentaria		
Stob.	Iohannes Stobaeus			
	Ecl.	Eclogae		
SVF	H. Von Arnim (ed.), Stoicorum veterum fragmenta, 3 vols., Leipzig			
	(1903–1905); vol. 4: indexes by M. Adler, Leipzig (1924)			

Ter.	Terentius			
	Ad.	Adelphoe		
	Andr.	Andria		
	Eun.	Eunuchus		
	Hec.	Несуга		
Them.	Themistius			
	Phys.	In Aristotelis Physica paraphrasis		
Theodoret.	Theodoretus			
	Graec. aff. cur.	Graecarum affectionum curatio		
Thphr.	Theophrastus			
	HP	Historia Plantarum		
Us.	H. Usener, Epicurea, Leipzig (1887)			

Introduction

Between 12 and 14 April 2012 the International Workshop *Space in Hellenistic Philosophy* took place at Villa Orlandi and Villa San Michele on Anacapri (Naples). The event was co-sponsored by the European Research Council (Starting Grant 241184-PHerc), the Excellence Cluster TOPOI, the University of Bonn, the Alexander von Humboldt Foundation, the University of Naples 'Federico II' and the Humboldt University of Berlin. The participants were Michele Alessandrelli, Keimpe Algra, Richard Bett, Charles Brittain, Ada Bronowski, Giuseppe Cantillo, Aurora Corti, Holger Essler, Dorothea Frede, Christoph Helmig, Christoph Horn, David Konstan, Jun Yeob Lee, Carlos Lévy, Jaap Mansfeld, Graziano Ranocchia, Camilla Serck-Hanssen, Emidio Spinelli, Teun Tieleman, Voula Tsouna, Miira Tuominen, Christian Vassallo, and Francesco Verde.

The subject dealt with by the participants has been the concept of space, and those related to it, as endorsed by the philosophical schools from the period between the end of the Classical age and the early III century AD. The decision to focus on this specific topic arose from the observation that most of the studies on ancient physics have mainly been devoted either to an analysis of the evidence about Presocratic philosophers or to a detailed investigation of the Platonic and the Aristotelian oeuvre. But the decision was also determined by the fact that the Hellenistic reflection on the concept(s) of space stands as an intellectual endeavour of the highest order, which while indebted to the illustrious traditions of earlier centuries in many respects, nonetheless represents a very original development. In addition to this, the need was felt not to confine oneself to the evaluation of the major 'dogmatic' schools which were active in the Hellenistic age (the Lyceum, Epicureanism, and Stoicism), but to extend the hermeneutical focus to also cover those coeval (or even later) authors who, without thematising the concept of space in itself, still made philosophically original use of it either in a constructive (Philodemus, Lucretius) or in a sceptical way (Aenesidemus, Sextus Empiricus).

The papers delivered at the Workshop, duly revised and adapted, have now been brought together in this collection of essays. If there is a *file rouge* which runs through the various contributions, this is not provided simply by the thematic unity of the collection, namely the fact that the subject discussed is the same. And this, because the concept of space was thematised in the Hellenistic age in very different ways which are reflected in the different ways in which the subject is tackled in the present volume. If we can speak of a *file rouge*, this is above all with reference to the problematic approach of most of the contributions. What makes an approach of this kind unavoidable is both the nature of the subject itself and the status of the secondary literature. As is well-known, pre- or early Hellenistic thinkers such as Aristotle, Eudemus and Theophrastus and Hellenistic philosophers such as Strato, Chrysippus and Epicurus made a remarkable contribution to the reflection on the concept of space, both from a historical and a theoretical point of view. Now, such a contribution is partly vitiated by the obscurity and the abstruseness of the spatial theorisations developed by those thinkers. This lack of clarity is further increased by the fragmentary and often contradictory nature of the surviving evidence.

On the other hand, the existence of significant scholarship on this subject impels specialists to face new hermeneutical challenges. In fact, the progress provided by some important studies to our knowledge of the Peripatetic, Epicurean and Stoic conceptions of space (I am thinking here, in particular, of the studies made by Keimpe Algra¹ and David Sedley²) has at the same time raised new puzzles. The essays by Keimpe Algra, Michele Alessandrelli, Teun Tieleman and David Konstan engage with such conceptions by starting from some of these issues. What is also problematic is the particular subject explored by the contributions of Holger Essler and Carlos Lévy, on the one side, and Richard Bett and Emidio Spinelli, on the other. This is an area that, with few exceptions, had previously been left substantially unexplored. The difficulty surrounding this peculiar domain is also due to the fact that the philosophers investigated in it did not deal with the problem of space on its own, since they were either hostile to theoretical speculation (Aenesidemus and Sextus Empiricus) or apparently disinterested in physics (Philodemus), or else engaged in the popularising and teaching of philosophical doctrines (Lucretius). The approach just described distinguishes eight out of the nine contributions published here and is partly balanced by the last of them, which represents a final doxographical synopsis of three key concepts in the Hellenistic physics of space, namely void, place and chora.

The volume opens with an extensive essay by Keimpe Algra about the reception of Aristotle's treatment of place and void in the Hellenistic age and the previous period (*Aristotle's Conception of Place and its Reception in the Hellenistic Period*). Algra's essay first of all has the merit of providing a wide chronological framework in which it is possible to place a good number of philosophers who dealt with topics of spatiality in the period under consideration. The author starts by examining the problematic yet fascinating conceptual core represented by Aristotle's treatment of *topos* in the first five chapters of *Phys.* 4. The occasion for this analysis is offered to Algra by Ben Morison's recent study *On Location*,

¹ See Algra 1988, 1992, 1993, 1995, 2000, 2002, 2003, 2012.

² See Sedley 1982, 1987, 1999, 2010, 2011, 2012 and also Long / Sedley 1987, 31–52, and 294–304.

which is structured as a thorough analysis of *Phys.* 4, 1-5. Morison contends Aristotle's conception of place to be valid and consistent and, accordingly, he defends it from the criticism historically levelled against it. Algra responds by raising four objections against the Aristotelian definition/conception of place as "the first immobile surface of the surrounding body". The first objection challenges the arguments which Aristotle devised against another important conception of place, namely place as a three-dimensional extension. The second objection is the logical consequence of the observation that Aristotle's conception of place as "the first immobile surface of the surrounding body" does not seem to work when applied to the trajectory of moving bodies. The third objection focuses on the alleged immobility of place. The fourth concerns the collocation of the heavens. According to Algra, despite Morison's pressing arguments, this set of objections exposes the difficulties and incongruities of Aristotle's conception. This view is further confirmed by the endorsement of these objections by remarkable exponents of both the pre- and early Hellenistic Peripatos, such as Eudemus, Theophrastus and Strato, and of the late Hellenistic Lyceum, such as Xenarchus. This last philosopher polemically yet fruitfully investigated the Stoic conceptions of place and void, which at that time were already widespread and well-known. The appropriation of these objections took different forms among Aristotle's later followers, depending on the different degrees of awareness of their gravity. Xenarchus, for instance, was conditioned by his perception of the strength and consistency of the rival Stoic position. According to Algra, the difficulties displayed by Eudemus with respect to the possibility of envisaging or grasping place as understood by Aristotle were due to the appeal exerted on him by the notion of place as permanent three-dimensional extension - a notion which, as we have seen, represented the most important theoretical alternative to the Aristotelian position. According to Algra, Theophrastus' aporetic attitude towards Aristotle's notion of topos must be traced back to his concern for improving and strengthening the Master's theory. Differently from Morison, who closely assimilates the Theophrastean position on place to the Aristotelian one, contending its orthodoxy, Algra, while noting the substantial continuity between the two notions of place, presents the former as a re-elaboration and an original development of the latter. Despite their doubts about, and criticism of, the definition of place as "the first immobile surface of the surrounding body", Eudemus and Theophrastus continue to operate within the conceptual framework outlined by Aristotle's theoretical project. Strato of Lampsacus, by contrast, seems to have taken a leap across to the other side of the fence. Along with the interesting theory of intra-cosmic micro-voids, our sources ascribe to him an open rejection of the Aristotelian conception of place and an acceptance of the notion of place as a permanent three-dimensional extension. It is as if Strato' doubts had overcome his doctrinal loyalty, making it impossible for him to hold fast to Aristotle's theory. Actually, just like Eudemus and Theophrastus, Strato too raises his criticism from within an Aristotelian perspective; but whereas the two other philosophers remain well anchored to this framework, Strato ultimately abandons it. In the late Hellenistic period, as Aristotle's acroamatic works came to enjoy a wider circulation and Stoic cosmology became predominant, Xenarchus of Seleucia, who was strongly interested in the problem of void, apparently went full circle by embracing the opposite position (as Paul Moraux first suggested). He regarded some of the features of the Stoic conception (such as the thesis of the existence of the extra-cosmic void and the idea, probably first endorsed by Chrysippus, that the occupiable void and the occupying body are not correlative to each other) to be real *cruces* for the Aristotelian conception, i.e. theoretical knots which neither Aristotle nor his successors had been able to adequately solve. The richness of the Peripatetic contribution to the problem of place both from a doctrinal perspective (against the Stoics) and from an aporetic point of view (against Aristotle) is witnessed, according to Algra, by Sextus Empiricus in the accounts contained in PH 3, 19-35 and M 10, 1-36. Sextus' criticism of the conception of place as three-dimensional extension, a position mainly maintained by the Stoics, derives first of all from a set of arguments brought forth by an earlier sceptical tradition. Sextus copiously draws from this tradition. Yet, Sextus' criticism incorporates – albeit with a clear anti-dogmatic purpose - a Peripatetic-like ontology and can be traced back to Aristotle's discussion and rejection of this conception (which obviously was not yet a Stoic one at the time) in Book 4 of *Physics*. Likewise, the arguments levelled by Sextus against the Aristotelian conception of place "as a surrounding surface" (periektikos), based once again on the same sceptical sources, can be traced back to the criticisms levelled against this same conception within the Peripatetic school itself. According to Algra, all this confirms the marked doctrinal and polemical vitality of the Lyceum in the Hellenistic and post-Hellenistic age.

Michele Alessandrelli's essay (*Aspects and Problems of Chrysippus' Conception of Space*) investigates the concepts of place, void and *chōra*, that is to say the pivots of Chrysippus' physics of space. By analysing the texts recording the Stoic definitions of these spatial entities, Alessandrelli sets out to reconstruct the most coherent possible picture of the Chrysippean conception. According to this picture, highly formal and counter-intuitive spatial concepts (those of void and place) coexist, not without tensions, with that of *chōra*, a much more informal and intuitive one. According to Alessandrelli, the notion of *chōra* was introduced by Chrysippus in order to do justice to the way in which living beings experience extra-cosmic space, conceived as liveable space structured in regions that prove at times crossable, at others not. What is noteworthy is the following fact: while the first two elements are incorporeal for the Stoics, our sources are silent about the ontological status of *chōra*. This may reflect some hesitation on the part of Chrysippus himself, which he never managed to free himself from. From the analysis of these concepts and the drawing of some critical comparison with the interpretation of them provided by Keimpe Algra, the paradoxical nature of Chrysippus' conception of place and the problematic character of his conception of *chōra* emerge in some way.

No less problematic is the state of the sources which Teun Tieleman investigates in his contribution about Posidonius' conception of void (Posidonius on the Void. A Controversial Case of Divergence Revisited). Tieleman starts from the apparent irreconcilability between some authoritative witnesses which seem to present the thesis according to which the void surrounding the cosmos is infinite as the official, orthodox position of the school and a passage from Aëtius in which Posidonius is reported as instead claiming that void is finite. Tieleman seeks to overcome this apparent contradiction by assuming that the situation must originally have been more complex than what our sources allow for. He does not exclude that the second thesis ascribed to Posidonius – that of the finitude of void – may have simply represented an *ad-hoc* response to Panaetius' rejection of cosmic conflagration. This found its *raison d'être* in the fact that, for Panaetius, the infinitude of void would expose the conflagrating cosmos to the drift of an uncontainable dispersion. This kind of response on Posidonius' part would not have jeopardised his adhesion to the official position of the school.

David Konstan (*Epicurus on the Void*), distances himself from David Sedley's influential thesis according to which "space is a continuous matrix that extends uniformly throughout the universe, and is either filled, when it is occupied by matter, or empty, when matter is absent". Konstan argues instead that space, qua complement to matter, is where matter is not. In doing so, he raises a series of questions. The first concerns the problem whether space according to Epicurus plays an active role in separating atoms from each other. To this question Konstan gives a negative answer, by referring to the doctrine of minima. The second question focuses on whether space has an intrinsically downwards directionality for Epicurus. In this case too the author's answer is a negative one, for this directionality is a property of atoms, and not of space. The third question is whether space for Epicurus supplies moving atoms with an absolute framework of reference. In this case Konstan's answer is affirmative, because Epicurus conceives of space as something static. The last question is whether Epicurean space has something to do with the density of composed objects. In this case Konstan seems inclined to prudently assign an active role to space (contra Sedley), as a concomitant cause of the density of aggregates.

With Holger Essler's contribution (Space and Movement in Philodemus' De dis 3: an Anti-Aristotelian Account) we approach that area of Epicureanism in which developing a complete and coherent theory about spatial concepts is no longer the main concern. As far as we know, in Philodemus an independent investigation about physics, and hence also about space, is absent. Still, Essler argues for the presence in Philodemus of physical conceptions which can be traced back to both the physiological paradigm of Epicurus and to some Aristotelian or Peripatetic physical and biological models. If there is any hope of pinning down Philodemus' usage of spatial concepts, it is on the basis of his broader engagement with general problems related to physics. In the Garden there was a close correlation between physics, understood as physiologia, and ethics. This connection is present only in the theological part of Philodemus' oeuvre. For this reason, Essler focuses his attention on two long consecutive passages of Phld. D. 3, the first concerning the space of gods, the second their movement. The author's analysis develops through a strict comparison between Aristotle's conception of natural place (in both its physical and biological version) and Philodemus'. In Philodemus, unlike in Epicurus and Aristotle, we do not find any explicit theory of space and place. However, Essler illustrates the significant use which he makes of the concept of natural place both for polemical purposes (against Aristotle) and in a constructive way. It is remarkable that Philodemus uses the Aristotelian concept of natural place in its biological sense as a polemical weapon against the equally Aristotelian concept of natural place in its physical sense, in order to establish that particular kind of natural place which is the *metakosmion*, i.e. the dwelling of the gods, obviously conceived in Epicurean terms. Essler thus accounts for the conceptually hybrid character of Philodemus' description of the *metakosmia*. As a matter of fact, this description distinguishes itself not only for its loyalty to Epicurus' fundamental tenets, but also for the use (already made by Epicurus himself) of Aristotelian arguments for anti-Aristotelian purposes – in particular, to criticise Aristotle's conception of the stars as deities.

In the essay by Carlos Lévy (*Roman Philosophy under Construction: the Concept of* Spatium *from Lucretius to Cicero*) the way in which Lucretius deals with space is not investigated by establishing a comparison with Epicurean texts concerning the same subject. Lévy discards this kind of approach because it treats Lucretius not as an author capable of rethinking important issues of Epicurean dogmatics in an original way, but simply as a more or less faithful follower of the orthodoxy of the Garden. According to Lévy, a discussion of the problem of space in Lucretius enables one to do full justice to the philosopher from this point of view. The author's study is structured in three steps. Firstly, he points out the novelty and the significance of Lucretius' conception of space by a comparison with the previous Latin poetic tradition, to which Lucretius himself was initially indebted. Secondly, he explains the way in which Lucretius tried to turn the concept of space into a philosophical concept. Thirdly, he makes another comparison, this time between Lucretius and Cicero, noting the latter's fidelity to an archaic way of understanding the term *spatium*. This idea was surpassed by Lucretius through his conceptual innovation. What emerges from this picture, according to Lévy, is the relevance of the Latin context for reconstructing Lucretius' contribution to the elaboration of a fully philosophical concept of space. The interesting fact is that Lucretius drew upon the Epicurean tradition in an original manner in order to distance himself from the ways in which poets anterior to him - such as Ennius, Plautus, Terence and Lucilius had employed the term *spatium*. This is the equivalent of the Greek term mēkos; but whereas mēkos has only a secondary place in the Epicurean physics of space, according to Lévy spatium becomes a central concept in Lucretius' thought. And this is not all. The concept of spatium which Lucretius himself had initially shared, and from which he later distanced himself, was a temporal concept of space. This is remarkable for two reasons. In the first place, because this operation marks the transition from a somehow experiential notion of space to a theoretical and philosophical one. In the second place, because Lévy actually presents Lucretius as the inventor of what was destined to become the prevalent philosophical and scientific notion of space in the later Latin Western tradition.

Richard Bett's contribution (Aenesidemus the Anti-Physicist) introduces the section about neo-Pyrrhonism and the possible use of spatial concepts by its most renowned exponents. While it is true that Aenesidemus discussed arguments pertaining to physics, his purpose was to demolish the dogmatics' trust in their own physical conceptions. Bett wonders whether this sceptical enterprise of demolition also implied or presupposed a discussion about concepts such as place or space on Aenesidemus' part. First of all, the author establishes with a good degree of certainty the Aenesidemean authorship of the ten modes or tropes (to be understood not as an *ex-novo* invention, but as a re-organisation of these tropes into argumentative schemes for sceptical purposes), as summarised and related in two slightly different ways by Sextus Empiricus and Diogenes Laërtius. In particular, Bett focuses on the fifth trope concerning positions, places, intervals or distances (depending on which version one relies on, whether Sextus' or Diogenes'). According to Bett, the examples used in the trope under discussion have the kind of destabilising effect on dogmatic certitudes which one would expect them to have only when set within a general sceptical framework, namely the one provided by the core of the fifth trope. This propensity relativises our observation of things as always occurring either in a certain place or in a certain position or at a certain distance. This spatial conditioning which affects things makes it impossible to penetrate their real nature. It is interesting that Aenesidemus avails himself of the concept of place almost as though it were a relativising parasite which contaminates and jeopardises our absolute knowledge of things. If the latter are never free of conditioning and in this sense knowable but are always in a certain place, then our knowledge of things is never pure. On the contrary, it is always vitiated by the places in which things find themselves. These places, from the observer's perspective, relativise things in a variety of ways and make it impossible to determine their invariant nature. Now, Aenesidemus did not need to know what place is in order to advance this strategy. Rather, this very strategy does not require us to know anything about place other than the fact that it conditions the nature of those things which lie within it, so as to make them impenetrable. According to Bett, the discussion about these spatial concepts was in some way preliminary to that concerning the basic principles of dogmatic physics.

Emidio Spinelli devotes his contribution (Φαινόμενα contra Νοούμενα: Sextus Empiricus, the Notion of Place and the Pyrrhonian Strategy at Work) to the problem of place as the philosophical notion discussed in PH 3, 119-135. The author provides an overview of some of the hermeneutical results reached by Keimpe Algra in a paper delivered at the XI Symposium Hellenisticum in 2007.³ The account examined by Spinelli is probably earlier than that contained in Book X of Against the Mathematicians. This stands out as being more accurate and complete compared to the one in the *Outlines of Pyrrhonism*. Spinelli's essay, therefore, complements that of Algra and – together with it – constitutes a detailed and exhaustive commentary on Sextus' treatment of the philosophical concept of place. While for Aenesidemus - as we read in Bett's contribution place fatally relativises the nature of things, making them impenetrable, Sextus' discussion of the subject is dominated by the contrast between philosophical theories of place (the proper target of Sextus' sceptical criticism) and, as it were, the synētheia of the word 'place'. Usual practice forces us to understand this word not as signifying a physical or metaphysical entity whose nature can be investigated and known, but simply as a linguistic and phenomenal device. This is correlated, through the phenomenon of designation, with an intuitively and experientially ineliminable element in our ordinary relationship with reality, that is to say an ingenuous and reflexive phenomenon which most human beings experience, with the exception of dogmatics. Spinelli's contribution represents, in fact, a study of the efforts made by Sextus to speak of place with a language

³ See Algra 2014.

different from that of the dogmatic tradition, which was intrinsically marred by insuperable *diaphōniai*. Sextus' entire endeavour is aimed at purging language of its substantialist conditionings by putting it on the same level as the phenomena to which the Pyrrhonian sceptic conforms without aspiring to surpass them. What is noteworthy is the way in which, in order to describe place, Sextus introduces formulas and expressions referring to the phenomenal domain of usual practice. This strategy frees language from its obsession with abstraction and its tendency to separate things which phenomena attest to be always interconnected. Speaking about place, therefore, means speaking about how things always reveal themselves to us, namely as being in a certain place. This rather original interrelationship between phenomenal elements imposes on language formulas and expressive choices of an anti-theoretical kind.

The doxographical synopsis provided by Jaap Mansfeld (Doxographical Reverberations of Hellenistic Discussions on Space) concludes the volume. The essay concentrates on Aristotle's legacy and the issue of what and how much influence he exerted on ancient doxography, with particular reference to Aëtius. Aristotle's philosophy is the starting point for Aëtius' account of Presocratic, Classical and early Hellenistic doctrines about void and place. Yet, whereas Aëtius' treatment of void (1, 18) and place (1, 19) has precise parallels in Aristotle's *Physics* and *De caelo*, this is not at all the case with his discussion of *chōra* (1, 20). As far as Aëtius' chapter about void (1, 18) is concerned, Mansfeld refers to Arist. *Phys.* 4, 213a12–15, a passage which sketches the programme for a correct study of the problem of void, based on three related questions: "whether it is or not, and how it is, and what it is". The first question is implicitly under discussion, according to Mansfeld, in the above chapter and explicitly at 2, 9*. The question of "how it is" has as its subject the two categories of 'where' (i.e. whether void lies within the cosmos or outside it, or both) and of 'how much' (i.e. whether void is of unknown or infinite size, or big enough to allow the expansion of the cosmos). The category of *ousia*, corresponding to the question of "what it is", does not emerge in this chapter. In order to find it discussed in relation to void, it is necessary to turn to 1, 20, a passage which presents the Stoic definition of void as "a vacancy of body". The agenda for the chapter about place (1, 19) was set again by Aristotle, with the above three questions raised about void. By examining the three definitions of place provided by Plato, Aristotle and Strato, this chapter prominently focuses on the category of substance, which is directly linked to the question of "what it is". Also at play here is the category of "how it is", which poses the paradoxical problem of what the place of place might be. Totally absent, instead, is the question of the existence of place, which was central for Aristotle. It is remarkable that in this chapter Hellenistic philosophy is only represented by Strato. The section about chora and Aëtius' chapter on it (1, 20) set out from an observation regarding the enigmatic structure of this concept. It represents a thoroughly Hellenistic *vis* à *vis* between Stoics and Epicureans. Now, this contrast finds a parallel (though not a perfect one) in Sextus Empiricus, but not in Epicurean texts. Mansfeld observes that it could have been deliberately exaggerated in order to simulate a doxographical *diaphōnia*. The contribution ends with an appendix containing the critical edition of chapters 1, 18-20 and 2, 9^* .

While fully aware of the problematic character of the subjects discussed and of the interpretations offered in many of the contributions to this volume, the coeditors and myself hope that this book may serve as a new starting point for future studies on ancient physics, paving the way for further lines of research.

Graziano Ranocchia Naples, April 2014

Keimpe Algra Aristotle's Conception of Place and its Reception in the Hellenistic Period

1 Introduction

At first sight the discussion of place in Aristotle *Phys.* 4, 1-5 may seem patchy and its style at times crabbed. On closer view, however, its contents acquire coherence through the conscious and explicit application of what has been labelled Aristotle's 'dialectical method'. It is no coincidence that the discussion of place has been one of the key examples in G.E.L. Owen's classic study of this method,¹ for Aristotle is more explicit than he usually is in outlining his procedure:

We must try to make our inquiry in such a way that the 'what-it-is' is provided, the *aporiai* are solved, the apparent facts about place are accounted for, and, finally, so that the reason for the difficulty and for the problems around it are clear (Arist. *Phys.* 4, 211a7–11).

Aristotle practices what he preaches: he provides the 'what it is' in the form of a definition or account ("the first immobile boundary of what contains", *Phys.* 4, 212a20); he solves the *aporiai* (at least for this, his own, conception of place, *Phys.* 4, 212b22–29); he accounts for the apparent facts (at least for those apparent properties that *genuinely* apply to place, i.e. the set of properties specified at 210b33 ff.); and he provides us with an explanation of the difficulty of the subject, in the following passage:

Place seems to be something profound and difficult to grasp, both because the notions of matter and form present themselves together with it ($\pi\alpha\rho\epsilon\mu\phi\alpha(v\epsilon\sigma\theta\alpha)$), and because of the fact that change of position of a moving body occurs within a surrounding body which is at rest; for [from this] it appears to be possible that there is an extension in between which is something other than the magnitudes which move. Air, too, contributes to this suggestion, by appearing to be incorporeal; place seems to be not only the limits of the vessel, but also that which is in between, which is considered as being void (Arist. *Phys.* 4, 212a7–30).

The problem seems to be, in other words, that the phenomena are unclear to the extent that in everyday thinking and speaking various conceptions of place – in-

¹ Owen 1961. On the structure of the account of *Phys.* 4, 1-5 see also Algra 1995, 170-181, and Morison 2002.

cluding the most important rival conception of place as three-dimensional extension ("that which is in between, which is considered as being void") – readily come to mind and may be used *promiscuously*. In fact, and as we shall see, the *corpus Aristotelicum* itself does not always stick to what in *Physics* 4 comes out as the correct account. Nevertheless it is here, in *Physics* 4, that the various conceptions of place are disentangled and examined, and that we are told which one can be coherently maintained.

The subject of the present paper is the equally mixed reception of Aristotle's accounts of place and void in the Hellenistic period. Engagement with Aristotle's theory in this period appears to have come in at least two stages. The first concerns the interpretation of the theory of *Phys.* 4, 1–5 by Aristotle's earliest successors. I will discuss these early reactions, mostly on the basis of the evidence provided by Simplicius (in particular in the *Corollary on Place* which rounds off his commentary on *Phys.* 4, 1–5), in sections 3 (Eudemus), 4 (Theophrastus) and 5 (Strato) of this paper. The second stage appears to have started in the first century BC – after the resurfacing of the *corpus Aristotelicum* – and to have taken the form of a debate between Peripatetics and Stoics on place and on the Stoic conception of an extra-cosmic void. Here again it is Simplicius who offers part of the evidence – on the Peripatetic Xenarchus of Seleucia and on anti-Stoic arguments assembled by Alexander of Aphrodisias – whereas other relevant information is

² Philoponus took it to be his duty to expound and explain Aristotle's position to the best of his abilities in his commentary proper before criticizing it in the separate excursuses which we now know as the corollaries: see his programmatic remarks at *Cat.* 6, 30-35. On the relation between the commentary proper on *Phys.* 4, 1-5 and the *Corollary on Place* see Algra / Van Ophuijsen 2012, 2-6.

³ On the medieval reception of the theory, see Grant 1981.