

15,20/23,00

A.L. PIERRIS

FIRST PRINCIPLES AND THE BEGINNING  
OF WORLD-FORMATION IN STOICISM

FROM:

K. BOUDOURIS (ed.) : HELLENISTIC PHILOSOPHY VOL: II

ATHENS 1994

A.L. PIERRIS

## FIRST PRINCIPLES AND THE BEGINNING OF WORLD-FORMATION IN STOICISM

There are two aspects of the World, one *terrible*, the other *glorious*; both *awesome*, hence *sacred*. The former is characterized by the manifested enormities of irresistible power; the latter by the shining splendour of superlative beauty. Combinations of the two elements confirm their crucial contrariety, each possessing in its own way an image of its opposite. There is certainly luminous power: but it consists in the attraction exercised by excellence and perfection; as there also exists dark beauty; but it is the constructive aspect of illimitable force. Furthermore, the differentiation of the two fundamental modes of appearances in the World should not be confused with the distinction of the hostile from the friendly to man. At the deeper experiential level there is simply blinding and suffocative darkness on the one hand, the abysmal secrecy of the World; the clarity and openness of light on the other, the visionary flowering of the World. The mystery is opposed to revelation, concealment to manifestation. Man instinctively *shudders* at the one, *gladdens* at the other. There is immediate affective response to that opposition. But often the dreadful nourishes and protects, while the exalted exposes and destroys.

The processes in the bowels of Earth and the inside of woman are occult and all-potent. Birth and Death (primal, ultimate realities of might and hiddenness, terrible visitations par excellence), are associated to the secret of the cosmic Womb. The *chthonic* experience emerges, as the primeval, immediate response to the fearful is thus articulated. By contrast, the workings in the clear air, above Earth and high up in the serene Sky, as well as the purposeful functioning, the excellences and achievements of man are conspicuous, transparent, lucid. Won-

drous beauty is their characteristic, rare or frequent consummation. The radiance of the World thus develops into the celestial, *olympian* experience.

The terrifying power of productivity belongs to the chthonic; the play of perfection to the olympian. Both are required for a stable, harmonious offspring. Left in itself the prolific fertility of the dark womb is spent in abortive malformations, in chaotic outbursts of procreation and annihilation, shooting forth and reabsorbing back. It needs olympian order for a true Κόσμος to be crystallized out of such lawless, blind creativity. Thus wild nature is cultivated. Earth requires the regularity of the cosmic cycles of seasons and months, of day and night, of wind and calm, rain and sunshine, in order for its fecundity to bear fruit. And similarly female fruitfulness wants male seed so that it may take form and engender a perfect new being.

Divine presence is ubiquitous in the world for the natural man. Everything lives. This implicit organicity of being makes the biological model paramount in corresponding explanations of the causal nexus in the derivation of reality from first principles. Creation is a sexual act. It thus consists in the coition of male with female.

The underlying sacral experience of the World as alternatively terrible and glorious on the one hand; and logicomythical associations and meditations on cosmic structure, function and causality in whole and in parts along hylozoistic lines on the other; combinedly operating resulted in the conception of two principles of reality, one male, luminous, celestial, orderly, the other female, dark, chthonic, tumultuous. The two principles are not in eternal strife and segregation, but in necessary conjugation and cooperation to the best end. This is the substance of Greek speculative dualism.

Its first conceptual, systematic articulation in early Pythagoreanism employed the opposition of Πέρας-Ἄπειρον to express that ultimate bipolarity. Limit and definiteness well capture the essence of the form-imposing principle; and so Indeterminateness and Infinity reveal the character of the unruly principle of productive dynamism in its turbulent agitation susceptible of multiple determination, and thus of specific progeny.

With the advent of Classicism three connected developments make themselves emphatically felt in the theory of the first principle of reality. *One* is an increased "scientification" in later Pythagoreanism of the primarily symbolic mathematics of the earlier, archaic, school. *The other* is a certain intensification of the patriarchal feeling in Hellenism, with its biological correlative: enhancing the contribution of the male in conception to the detriment of the feminine role. The olympian and chthonic factors of reality tend to be viewed as more and more apart from each other, as less and less interconnected, which facilitates the relative undervaluation of the latter in a culture predominantly captivated by the splendour of beauty. *A third*, and most disorienting, is the superimposition of a Zoroastrian type of antagonistic dualism between good and evil upon the Greek collaborative one between luminous order and dynamic fertility. The second principle begins to assume an inherent colouration of badness.

All three express in effect intellectualistic rationalizing interpretations of reality; they represent corresponding magnifications of the role of Πέρας in the constitution of the World. All can be seen operating in *Timaeus*. 1) The second principle is conceived as space unorganised, which by being informed through elementary surfaces (two kinds of basic triangles) and the regular solids composed out of them, is rendered the ordered, dimensioned, co-ordinated and measurable mathematico-physical space of sensible World; the geometry of ordered space determines also and constitutes the elements of physical nature, fire, earth, water, air and aetherial sublimity. Aristotle indeed mentioned that one of the ways by which the pythagoreans endeavoured to construe the constitution of the primal One out of Πέρας and Ἄπειρον was "by planes". 2) "Matter" is really *nurse* to the becoming, rather than true *mother*. It sustains sensible being in existence. It is a *receptacle* of images. It is in fact mere metaphor to suggest that the mirror engenders and procreates the images it reflects. However, it is significant that in the pythagorean picture, although mathematicized, the motherhood of matter is maintained: the elements are certain definite organizations of space, and are thus *born* from it. It is matter which, being informed, becomes definite beingness. The mathematical model clashes irremediably with the image-model, and the Mother-picture with the Nurse-picture. In contemporary biological thinking we discover the same confusion. The male sperm is what, by being *located* in the womb, *feeds upon* the uterine fluids, and is thus transformed into a developing embryo. The offspring is more begot by a father than given birth by a mother. *Motherhood is virtually reduced to pre-natal Nursehood*. The long-term implications of such shifting emphases are colossal: are we more children of a celestial Father than of a terrestrial Mother? 3) The negative features of the second principle tend to be exclusively stressed. It is recalcitrant to the imposition of order, a continuous, anomalous "shaking" that destabilizes all concrete regularity, and renders it precarious and fleeting. The World is in perpetual flux, and what there exists of stable normality pertains to general lawfulnesses and entire wholes. Matter tends to be conceived as warring *against* harmonious order and luminous beauty; wherein lies the fatal origination of the idea of its malignity.

With mathematics becoming first, foremost and only philosophy (as Aristotle complained regarding Old Academy) the two principles are accordingly mathematicized as, first, One and, second, Indefinite Dyad, or More and Less, or Large and Small, or Many and Few etc. The bias is already found in *Philebus*, although the initial pythagorean formula of Πέρας - Ἄπειρον is there retained.

Aristotle was, *firstly*, resolutely against the relevance of mathematical science in any philosophical discipline. Regarding the *second* factor, matter, as the second principle, *involves potentially* the form; in the presence of a thing actually determined accordingly, and if acted upon by it in the manner and circumstances appropriate in each case, form is actualized, and matter actively manifests the same content of being that inhered according to a different mode of existence (i.e. potentially) before in it. We do have a conjugation of the two principles form-in-actuality and matter, to produce a new being similar to the former, the

father of the ontological marriage; we also do find the other principle as mother, and not as mere nurse alone. But the procreative, mighty dynamism of the second principle, essential characteristic of the archaic conception, is repressed: adaptability and a certain readiness and preparedness to assume form substitute the plenipotent generativeness of the Womb of all existence and being-determination; archetypal positive power gives place to passive potentiality.

As to the *third* feature. It is the privation of the form, to be distinguished from what is deprived of (i.e. matter), that is bad. Upon the assumption of form the former is annihilated, while the latter is preserved in the compound, as the substrate of form. Matter is not adverse to form-actuality; on the contrary, it requires, it "desires" its own entelecheian in-formation. Matter is potentially good; actual form, as goodness at work, extinguishes the badness of privation.

The aristotelian solution of the problem of evil expresses a moderate resistance to the "Zoroastrization", so to speak, of Greek dualism, but is also an example of the *formalism* which hellenistic thought was so decisively against. Matter with or without the form is just the same entity with the same intrinsic peculiarity; for if it can gain form, it may lose it, or assume some other. It is this capacity of multiple determination, this being the fruitful matrix of prolific issue, that constitutes metaphysical "femineity". By giving birth to a child, the female becomes mother, but as actual mother she preserves the indeterminate capability of a new birth - determination just as before; in this essential character, she remains always a virgin. Privation (as absence of a specific being - determination) is just as constitutive of motherhood as of virginity. If, consequently, privation is evil, matter is intrinsically evil. And how can then evil desire or attain goodness? Nothing is therefore being really solved by the aristotelian tactical move.

In Stoicism the two principles are conceived as absolute Activity or Agency and absolute Passivity or Submissiveness (ποιοῦν - πάσχειν). This is a conceptual rendering of the speculative Male - Female opposition, and meant so: *duplisis sexus numina esse dicuntur, ut cum in actu sunt mares sint, feminae cum patiendi habent naturam*. The male acts upon the female, the female suffers his action, and thus offspring is generated and things come into being. We encounter here the second thoroughly physical interpretation of the logico-mythical archetype since early Pythagoreanism. The new bipolarity is not equivalent to the aristotelian actuality - potentiality distinction. We saw just above that the second principle must keep its nature during and after in-formation; but potentiality is cancelled when actualized. Passivity on the contrary remains. Nor does the Stoic contrariety coincide with the form-matter apposition. Action for the Stoics implies *pervading* something and moulding it *from within* according to the permeator's own generative power. Stoicism explicitly rejects the constructionist and manufacturing model as external and mechanical, in divine causality and in all natural workings; this is in tune with the archaic organic conception of the World. But both the efficient and the final causes are external to their effect, though in specific senses consubstantial with it, for Aristotle; while so-called

formal cause is no proper cause at all with distinct *action* on its own matter in his system. However, although the Stoic construal of the ultimate opposition and conjugation satisfies better the natural requirements of organic generation as condensed in the fact that what is born comes out of the female; dynamism nonetheless is subtracted from the second principle; it is now the absolutely pliant object of the acting power.

For mathematization there can be, of course, no question in Stoicism. Nor really may one entertain notions concerning any fundamental badness and wickedness of matter. The very passivity of matter, its absolute docile yielding and submissiveness, its total lack of resistance to the plastic potency of the divine spirit, entirely exonerates it from whatever responsibility for the existence of evil in the World. Defect and depravity are due solely and unequivocally to God's action; but they are always the necessary and unavoidable consequences of a greater good and perfection.

In one respect Stoic matter even exhibits the dynamism of the primeval second principle; it is the *substance* of things (οὐσία), what *sustains existence*, what raises being above nothingness. The power to exist is vested in matter; while the potency to exist in specific being-determinations, to be such-and-such, is founded on the active principle. Matter-substance thus corresponds to the *ἔστω* of Philolaus, the unknown givenness and fact of being, what is presupposed by all limiting and indefinite things in the World, and of their blending constitutive of the cosmic harmony. Plato's dimly conceivable space-receptacle is another strained variation on the same theme. From the three features of classical dualism, Stoicism negates resolutely the first and third; but it labours under the acceptance of the second with typical boldness.

Both principles, what falls under them in each case, all being, is *corporeal*. Only bodies can act and be acted upon. And what is deprived of these functions is a *non-being*. The incorporeal is inert and idle, unparticipating in, and unparticipated by, the peculiar functions of existence. Such incorporeals are *space* as extension (vacuum if unoccupied, place if occupied) and *time* as duration. Exactly what are derived from, or secreted out, of early pythagorean ἄπειρον, and inhaled into the World together with spiritual Breath. In Stoicism spirit (and soul in particular) does not proceed from the Indefinite but belongs to the divine *active* principle, whereas space and time are incorporeals, non-beings, and thus pertain to Infinity.<sup>1</sup>

The ultimate substance of reality in itself, the absolute datum of beingness, is corporeality as such, body without qualities but of a certain quantity and with limits; for body is finite and limited, just as the incorporeal is in itself infinite. The limit is not a body, not corporeal, it is therefore a non-being. While we thus can limit being by its opposite, it is impossible that non-being could be limited by non-being. Non-being is limited, not in itself, but as being occupied (through being *filled*) by a being (a process, event or thing as the case may be). The resistance or rather "contrapression" (ἀντιτυπία) of matter is, of course, no real *power of repellance*, of thwarting the fashioning operations of the active princi-

ple; it is not even inert withstanding effective in-formation. It is simply the positive aspect of matter's passivity, that is, of its *readiness* to assume form. It constitutes its capacity to be in-formed. Without ἀντιτιυτία, no τύπος could have been impressed on it; it could have been substrate to nothing, it would be no matter at all. Matter without ἀντιτιυτία is incorporeal non-being, evanescent nothingness.

Matter in itself is thus a qualityless body of a certain determinate quantity, which can of course occupy more or less space depending on its state and condition. But left in itself, it would be dispersed into the infinite vacuum, virtually disappearing under a chaotically progressing uncheckable and unending operation of division and segregation. The void would break it again and again; *non-being would devour being*. For as the Pythagoreans discerned, it is the void that dissevers corporeality from itself, emptiness that dissolves the fullness of being into nothingness.

But what was by the Pythagoreans attributable to the disorderly action of Infinity, it may not be so explained by the Stoics. For void, as incorporeal non-being, cannot act it whatever way, cannot effect anything; in fact it is *less than passivity*, it cannot even suffer anything. It is therefore, on the contrary, an internal, inherent condition of matter that should lead to that self-annihilating dispersion into nothingness, if not checked by the appropriate agency. And in fact it is the very nature of matter, its passivity and passibility, that involves intrinsic *divisibility*, which, nothing hindering, will set the process of division operating *ad infinitum*.<sup>2</sup>

Thus Being as Substance and Substrate, Foundation or Root, requires for its preservation in existence *Being as Cohesive Action*. Passivity must be coupled to activity in order that substance remains *unified*, and thus capable of further assuming the variegated adornment of qualities, and so, finally displaying the full cosmic phantasmagoria.<sup>3</sup>

*Just as primary passivity is divisibility, so primary activity is unification.* The principle of divisibility is matter; the principle of unification is *immaterial body*. It must be *immaterial* in order not to partake in passivity and divisibility; it must also be *corporeal* so that it can act upon matter and unify it. This *immaterial corporeality* is the quintessence of *divinity*.

Matter and divinity are never *separated*; they form together the primal divine being. Nor can they subsist separately: we saw the fate of matter if left to itself. Divinity on the other hand, as cohesive activity, cannot subsist without something on which to exercise itself; it requires a substance to work on it. Thus while matter provides the root to, and represents the mother of, real existence, divinity makes out of that qualityless material substrate something determinate and capable of an identifiable, sustained being; it therefore plays the fatherly role of the principle of order. We encounter here one aspect of the chthonic-olympian, female - male archaic antithesis. We find also prefigured the neoplatonic distinction between being and unity or one -ness, ὄν and ἔν, ὄντα and ἐνάδες: the substance of reality is noetically distinguished from its unification, which is a

divine operation on the substantive material ground of existence resulting into full being.

Matter and divinity are indissolubly coexisting and interpenetrated, divinity thoroughly permeating matter. There is thus in the beginning just a single *divine being*. Internal processes in it must account for the entire cosmic reality. *Ionian Monism is thereby coherently juxtaposed on Pythagorean Dualism.*<sup>4</sup>

Greek Dualism has been applied thrice in the Stoic theory of first principles. *First*, there is the opposition between Being and Non-Being. Being is finite, Non-Being infinite, similarly to the early pythagorean construal. Moreover, space and time belong to the second principle in both systems, but spirit significantly is dissociated from it in Stoicism. This highlights their differences. To Pythagoreanism Infinity is the dark, chaotic expansive dynamism of fertility; it is the fecund principle of procreation, of extension, duration, self-movement (space, time, soul); against it Limit is static, luminous, self-centered determinateness. If power may be properly attributed to limitation, it is the circumscribing potency of identity, not the creative force of otherness and infinity. Finiteness merely controls the mighty outbursts of indeterminacy, fastens piecemeal its inexhaustible strength, impedes, so far as it is possible, its formidable destructive aspect. But for Stoicism, full dynamism belongs exclusively to being, while Infinity, as non-being, is absolute inertia and responsiveness incapable of all action or passion. We discern here the physical interpretation of Parmenides' ontology (as against his "doxology", which is closely pythagorean) that we also find in Atomism (see notes *EXCURSUS II*).

But what holds together atomic being; Why is not the void penetrating into the atoms, and dissolving their fulness, *as it did to Being at large*? Old pre-epicurean atomism founded eventually the indivisibility of atoms on their partlessness. But that involved it in all the perplexities regarding elemental (indivisible) atomic magnitudes. The Epicurean position abandoned the idea of partless, indivisible atoms; but there is then in fact no satisfactory explanation for the initial question: the principle of sufficient reason is virtually abolished in this case. The impasse of Atomism brings us back emphatically to the fundamental difficulty: how can inert, inactive and impassive non-being threaten the integrity of being at all? (see notes *EXCURSUS II*).

The Stoics solved the crux by a *second application of dualism*. This time, being itself was distinguished into a (purely) active and a (merely) passive pole. The common speculative, primeval contrariety was once more invoked, but again transformed. The male, luminous principle of order was made the source of all meaningful change and organic development, while dark, productive chthonicity was reduced to passive availability and readiness for shaping information. *Form is now conceived dynamically, in spermatic fashion, as immanent efficient causality*. The actuality-potentiality aristotelian apparatus loses its significance. The seed is both potential, in that the perfect development of the being has not yet been unfolded; and actual, as it is the causal source and efficient active principle of all growth and evolution. *What is potentially is the cause of*



*its actuality, not its mere presupposition, and potency is the cause of its activity, not its mere predisposition.*

The cohesive action of divinity is manifested as a *τόνος* holding together substance in a unified whole: a tension that, stretched throughout substance, keeps it united as an integrated continuity. It runs through it, permeating it thoroughly (see notes *EXCURSUS III*). Two moments are distinguishable in its functioning: on the one hand it *extends* to all parts and portions of the substance, leaving nothing unpervaded, constituting the magnitudes and qualities of the whole and its members; on the other, it *falls back to itself*, it focuses on a center, it "concentrates" founding the existence, oneness and substantiality of being. These are the two *τονικαὶ κινήσεις*, one outward, one inward; in this way also every thing possesses a capital, principal part, *τὸ ἡγεμονικόν*, as central seat of *τόνος*: there must needs be a salient, focal point on which the entire closely-knit network of ontological consistency is fastened. The old emphasis on a privileged, vestal point in pythagorean and orphic cosmogonies suiting their embryological patterns of world-formation, is given here a more spiritual turn; but is also retained in its pristine force: *for the central principle of a thing's being is also the beginning of its generation, its real inception*. Herein lies the *third application* of (Pythagorean) *Dualism* in Stoic Fundamental Physics operating within active being as such itself with its opposite tentional movements, and manifested in the substance - qualification and center-whole organic polarities.

Where the Theory of Principles ends, Cosmogony begins. The two ultimate principles, absolutely active being and absolutely passive being, are never in isolation; they necessarily coalesce. What exists primarily is *divine substance*, their total blending. This is of course no ideal abstraction but tangible, specific, corporeal reality, the *purest* and *most powerful* form of being. For *τόνος* in unifying substance imparts on it a certain peculiar *quality*, a "*suchness*" (*τοιοῦτότης*); the compound is an *ἰδίως ποιόν*, a thing qualified to its utmost determinateness, with no unspecified generality remaining open in it. *Quality is a particular way of holding together the substance*, is a *τόνος* of such and such a description. Significantly, the *principium individuationis* in Stoicism is not "thisness" but (absolutely determinate) "*suchness*": there are no, and cannot be, individual things exactly alike, indistinguishable (*ἀπαράλλακτα*). The individuality of a thing is grounded on its peculiar character. What takes so much matter, and forms it in such a particular way, is the same tonic principle holding together an identical entity.

*The purest and mightiest form of being is primordial Fire, and this is the spermatic Reason of the World.* Fire can consume everything, but, as vital warmth, is also the principle of life. Depending on its kind and intensity, it may reduce a thing to empyrean sublimation, and assimilate it by using it as food, or alternatively cause its growth and perfection. It transforms whatever encounters, burning it if violent, ripening it if moderate, softening it if gentle: nothing remains unaffected by it. It is the most drastic being, ultimate principle and condition of all coming into being, change and passing away.

This primal Fire corresponds to the pythagorean One (fiery too), first and mighty offspring of Πέρας and Ἄπειρον (the conceptual equivalent of orphic primigenitus), first harmonious adaptation of the two ultimate principles according to Philolaus. The pythagorean primal being is central fire, located at the middle of what is to become orderly World; the Stoic one is fire extending to vast regions of space, greater than the cosmic whole. Pythagoreanism stays faithful to the embryological pattern of world-creation. Limit imposes little by little more and more order on more and more extended portions of Infinity; this process constitutes the organic growth of the World, from the central fire to the entire διακόσμησις. But in Stoicism the development meets no resistance; no recalcitrance has to be overcome. The external second principle, the infinite vacuum, can neither promote nor obstruct the cosmic processes, whether actively or passively. As to the internal second principle, this pure passivity simply provides the ground for the unimpeded exercise of the divine action. Stoic cosmogony consists correspondingly in the consolidation of the primal Fire, rather than in its spreading of influence.

Primal Being is not static, but preeminently drastic. The prototype of natural activation, *orderly and purposeful*, is felt to reside in *the seed*. The Stoic cosmic fire is, therefore, like the pythagorean and the heracleitean, *spermatic*. Unlike the pythagorean, but like the heracleitean, it has not to cope with an external dynamic second principle which must be forcibly subdued at every moment of the ordering process. It proceeds unopposed. It involves *the law* as well as *the matter* of its development, as there is only non-being beyond it. It is protean indeed; Πρωτεύς ὁ Ζεύς.

The seed is archotypically potent, a paradigm case of physical mighty power. With an immanent causality it irresistibly realizes the entire development of the being that comes out of it. There is absolute consistency in this process and its product, total congruity of parts and whole, complete purposefulness in the concatenation of causes and effects, perfect adaptation of means and ends towards the attainment of the best integral result. Therefore the germ is *rational* in nature, *reason being the principle of objective coherence and teleological disposition in reality*.

The primal Fire being spermatic and rational, it is *demiurgic*: it proceeds to the orderly formation of the World out of itself. But before it can effect that, it must assume the form of actual semen; fluidity being considered a necessary prerequisite of organic generation, as appropriately yielding and compliant substrate of in-formation, as alimentary matter for assimilation and growth. Thus in a first stage of preliminary cosmogony, the preelemental Fire, as Radiance (αὐγή) according to Chrysippus, transforms itself through Air into Water (or rather the divine τόπος in it enacts that) and finally permeates the archetypal liquid as seed in semen (σπέρμα ἐν τῇ γονῇ). The transformation, expressed physically, is realized κατὰ σύστασιν, through condensation. The τόπος deflexes itself, so to speak, and slackens its grip on the substance it unifies, in order to make it more resistant, and thus apt for the moulding of a fully developed Cos-

mos. This appears to have been the standard construal of such precosmogonical metamorphoses. Cleanthes on the other hand had kept closer to the imagery of real fire. According to him the primal being was flame (φλόξ), as distinct from the Chrysippean Brilliance (αὐγή). When all has been consumed by fire at the universal conflagration destroying the World, without other matter left to feed upon, fire begins to be itself extinguished, the vanishing process being carried from the cosmic center towards the periphery. Thus by degrees, gloomy air fills the universe till primeval fire has been withdrawn to its inalienable place, the aetherial confines of the World: the air, essentially cold according to the Stoics, is further condensed and thus liquefied, as is well observed in the vast subterranean caves. This fluidity, final product of fire extinction, is now offered as appropriate nutriment to the residual fire at the universal limits, which, feeding in its turn on that liquid matter, begins to aggrandize itself once more, permeating the darkened cosmic regions, proceeding methodically and congruously (ὁδῶ καὶ συμφώνως) to the regeneration of the World in a new cosmic-period, just as living beings evolve out of their respective seeds in repeated cycles of birth and annihilation. The difference being that whereas in the case of specific categories of things the cycles do differ among themselves as there obtain varying external circumstances of their realization; with the entire universe the cycles are necessarily identical as there is no being beyond it to influence them differently according to its differing condition or disposition.

Dio Chrysostomus reports a bold logicomythus, a "wondrous tale sung by the Magians during unspeakable ceremonies in honour of Zeus". It is a remarkable piece of Stoicism poetically expressed, with Gnostic undertones and barbaric splendour, not circumspectly but audaciously proclaimed. I shall confine myself to the cosmogonical part of it. The God, having reduced everything to itself, extends sphaerically to *vast regions* of the Universe. He is in utmost *rarefaction* (consistent with cohesion), purest, immaculate *Shining* (αὐγή). In this state of unsullied sanctity he conceived a desire for his Lordship over the World, and thus the motivation was stirred in him to generate the cosmic Whole (ἔρμησεν ἐπὶ τὸ γεννᾶν... καὶ δημιουργεῖν τὸν ὄντα νῦν κόσμον). This impulse was a lightning, of light contaminated however with no shade of sordid darkness. Yet it constituted a pristine consolidation of the extreme sublimation of radiance into the tighter rareness of illumination. Having changed from sheer brilliance into light, he bethought of Aphrodite, of sexual union and procreation with a view to creation; he smoothened, soothed and becalmed himself, he relaxed his all-consuming severity of nature by becoming pneuma, aetherial spirit, fiery breath of a mild fire, and thus he copulated with aerial Hera, herself a further quenching condensation and cooling of his substance, whereby the cosmic semen was secreted, the seed of the Universe (ἀφίησι τὴν πᾶσαν τοῦ παντός γονή). This is the sacred marriage of Zeus to Hera, celebrated by sages in ineffable rites. The semen is the liquefaction of all substance (οὐσία), the seed of everything. For the first time now, there appears some actual distinction of the divine from the material; the former, permeating the second, like the procreative

efficacy of spirit in semen, can mould and form it into a Cosmos, as it is smooth and soft and promptly yielding to the drives of the spermatic Law. This is why the primal divine Being had to be self-transformed into cosmic seed in order for the formation of the World to be able to begin.

There is no mistaking the Stoic, and indeed Chrysippean, basis and colouration of all this. The primal being as αὐγή, ultimate refinement of Splendour, was characteristic doctrine of his. He did expound at length the symbolism of the coition between Zeus and Hera in precisely cosmogonical context and pattern. He was characteristically, perhaps excessively, given to the συνοικειώσεις of multifarious mythical and poetical ideas with his theories.

With the universal semen, the hesiodean Chaos according to the Stoics, the stage is reached where Cosmogony proper can start. The cosmic cycle thus commences, which from the same seed unfolds in order, with providential pre-determination, the same entire finite organism of the World in the midst of infinite non-being, again and again and again, aeon for aeon, sempiternally.

## NOTES

### 1. EXCURSUS I: MATTER, BODY, INCORPOREALS AND CONCEPTS

Substantiality for Stoicism consists in materiality. The substance of things is that which sustains them in existence, their substrate; that out of which they are made, their matter. The substance of the World is prime matter, the ultimate substrate, the *passive principle*. SVF I. 85 (τὸ μὲν οὖν πάσχον εἶναι τὴν ἄποιον οὐσίαν τὴν ὕλην); I 87: οὐσίαν δὲ εἶναι τὴν τῶν ὄντων πάντων πρώτην ὕλην, ταύτην δὲ πᾶσαν ἄδιον etc. II 316; 317; 318; 323; 380 (τὴν μὲν οὐσίαν καὶ τὴν ὕλην ὁφεισθῆναι ταῖς ποιότησιν); 599(οὐσίαν τε γὰρ τοῖς γινομένοις ὁφεισθῆναι δεῖ, πεφυκυῖαν ἀναδέχεσθαι τὰς μεταβολὰς πάσας). Very clearly Chalcidius *Comm. In Tim.* 288 Mullach (= SVF I 86): Silvam quippe dicunt (sc. plerique ut Zeno et Chrysippus) esse id quod subest his omnibus quae habent qualitates, essentiam vero primam rerum omnium silvam vel antiquissimum fundamentum earum, suapte natura sine vultu et informe: ut puta aes, aurum, ferrum et caetera huius modi silva est eorum, quae ex iisdem fabrefiunt, non tamen essentia. At vero quod tam his quam ceteris ut sint causa est, ipsum esse substantiam. Cf. *Ibid.* 290 M (= SVF I 88): deinde Zeno hanc ipsam essentiam ... unamque eam communem omnium quae sunt esse substantiam. §289M: essentiam quidem operis esse fundamentum, ut mundi esse merito dicatur, atque existimetur, essentia. §287M: Quarum (sc. all specific matters in the World) tamen exordium esse unam quandam antiquiorem communem omnium silvam... (every matter) habere dicunt subjectam praeexistentem substantiam, eamque esse corpus cohaerens sine qualitate, patibile totum et commutabile, quod silvam simul et essentiam appellant, hactenus definiunt. *Essentia et silva est quod subjacet corpori cuncto*; vel *ex quo cuncta sunt corpora*; vel *in quo proveniunt rerum sensilium commutationes, ipso statu proprio manente*. Item, *quod subditum est corporibus qualitates habentibus*, ipsum ex natura propria sine qualitate.

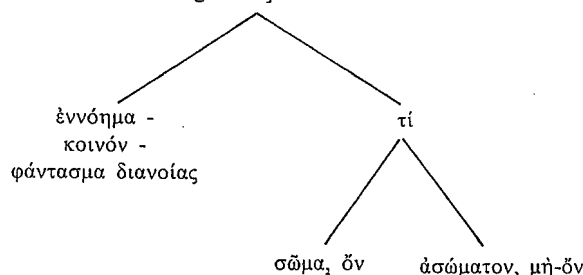
Stoic οὐσία corresponds to, and ultimately stems from the Philolaean ἐστῶ. It is in both cases that to which the existence of things is due, the fact of their existentiality, what makes being stand up (ἵστασθαι) in existence (Cf. the διαρρηκτικὴ ὑποστάσις; Simplicius *In Phys.* 109.32 = FV 30B 10). Significantly 'Εστῶ was associated to the Dyad in the Pythagorean 'Ἰερὸς λόγος' (Nicomachus

apud Photius *Bibl. cod.* 187 p. 143a = Thesleff, *The Pythagorean Texts of the Hellenistic Period*, p. 166.2). Philolaus FV 44 A9; B1, 2, esp. 6. Cf. A.L. Pierris, *Origin and Nature of Early Pythagorean Cosmogony*, in K. Boudouris (ed.), *Pythagorean Philosophy*, Athens 1992, n. 52. Philolaus divinised the fact of existence into a female deity; cf. Βαυβώ, Δημώ Αύξώ etc. and the Empedoclean Καλλιστώ, Φυσώ, Κινώ, Μεγιστώ (B 122-3).

The substance of being (of which is), *ἡ οὐσία τοῦ ὄντος*, consists in its material substrate, in that which grounds and establishes its existence. Correspondingly beingness consists in corporeality. All being, including the Principles of Being (τὸ ποιοῦν and τὸ πάσχον), is corporeal. Thus for matter and the passive principle: SVF II 359 ταῦτόν σῶμα καὶ οὐσίαν ὀρίζόμενοι; (this is not exactly correct in that there exists immaterial corporeality, that of the divine principle. But on the other hand all existence is substantive and material, it is πεποιωμένη οὐσία, as the two principles cannot exist separately). II 325 οἱ Στωϊκοὶ σῶμα τὴν ὕλην ἀποφαίνονται II 326 τὸ ἄποιον σῶμα τὴν πρωτίστην ὕλην. Cf. II 305; 309; 310; 315; 387 (πᾶν τὸ κινούμενον σῶμα). — Equally corporeal is the active principle: II 44 πᾶν γὰρ τὸ ποιοῦν σῶμά ἐστιν (also III Antipater 16; Archedemus 6); II 363; 387: πᾶν γὰρ τὸ δρῶν ἢ καὶ ποιοῦν σῶμα, πᾶν τὸ κινεῖν καὶ ἐνοχλοῦν σῶμά ἐστι. II. 336 Καὶ τὸ μὲν αἴτιον ὄν καὶ σῶμα etc. Also I 89. Cf. I 146 (Augustinus *Contra Acad.* III, 17, 38 nihilque in eo (sc. mundo) agi nisi corpore) II. 313 τὸν θεὸν ἀρχὴν ὄντα σῶμα νοερόν; II 1028-1035. — What acts and what is acted upon can only be body; I 90 nec vero aut quod efficeret aliquid aut quod efficeretur, posse esse non corpus. V. esp. I 98: ἀρχὰς ὕλην καὶ θεόν· ἀλλ' οὗτος (sc. Zeno) ἄμφω σῶματά φησιν εἶναι καὶ τὸ ποιοῦν καὶ τὸ πάσχον. — In Diogenes Laertius VII 134 we should evidently read ἀλλὰ καὶ σῶματα εἶναι τὰς ἀρχὰς καὶ ἀμόρφους with the mss. contra the ἀλλὰ καὶ ἀσωμάτων of Suidas s.v. ἀρχή (Cf. H.J. Krämer, *Platonismus und hellenistische Philosophie* p. 108 n. 3). — Beingness consists in corporeality (II 329 τὸ ὄν κατὰ σωμάτων μόνων λέγεσθαι. Cf. II 319; 320). The reason being that only bodies can act or be acted upon; II 525: ὄντα γὰρ μόνὰ τὰ σῶματα καλοῦσιν, ἐπειδὴ ὄντος τὸ ποιεῖν τι καὶ πάσχειν. II 363: τὸ ἀσώματον κατ' αὐτοὺς οὔτε ποιεῖν τι πέφυκεν οὔτε πάσχειν. It is the old provisional platonic definition of beingness in *Sophistes* taken seriously (247 d-e): λέγω δὴ τὸ καὶ ὁποιανοῦν τινα κεκτημένον δύναμιν εἶτ' εἰς τὸ ποιεῖν ἕτερον ὁτιοῦν πεφυκὸς εἶτ' εἰς τὸ παθεῖν καὶ σμικρότατον ὑπὸ τοῦ φαυλοτάτου, κἂν εἰ μόνον εἰς ἅπαξ, πᾶν τοῦτο ὄντως εἶναι· τίθεμαι γὰρ ὅρον ὀρίζειν τὰ ὄντα ὡς ἐστὶν οὐκ ἄλλο τι πλὴν δύναμις. The origin of the proposed definition lies in archaic modalities of thinking, especially in connexion with the hippocratic teaching; cf. *Phaedrus* 270 c-d. — The Stoic theory of causality is succinctly put by Sextus Empiricus SVF II 341 (πᾶν αἴτιον σῶμά φασι σῶματι ἀσωμάτου τινος αἴτιον γίνεσθαι etc.) V. II 336, I 89; cf. II 345; 349 Sextus Emp. *Pyrrh. Hyp.* III 14: οἱ μὲν προσηγοριῶν αἴτιον εἶναι τὸ αἴτιον φάσκοντες, οἷον τῆς χύσεως, οἱ δὲ κατηγορημάτων, οἷον τοῦ χεῖσθαι. — There can be no real relationship between bodies and incorporeals, not even contact or separation; SVF I 518 (οὐδὲν ἀσώματον συμπάσχει σῶματι οὐδὲ ἀσωμάτῳ σῶμα, ἀλλὰ σῶμα σῶματι) II 792; II 790 οὐδὲν ἀσώματον ἀπὸ σώματος χωρίζεται· οὐδὲ γὰρ ἐφάπτεται σώματος ἀσώματον.

Being is corporeal and the incorporeal is non-being. But both, as concrete realities, are something (τί). Whatness is predicated of both being (body) and non-being (incorporeality). SVF II 329; 334. But common entities, as *logical content* of general notions (universals), are neither (corporeal) beings, nor (incorporeal) non-beings; they are not-somethings (οὐτινα), as they are not fully determinate concrete realities. SVF II 329 ἐννοήματα = τὰ κοινὰ in II 278 = φαντάσματα διανοίας (intellectual imaginables) in I 65; they correspond to imaginary pseudo-entities, II 332. They also comprise the meaning (as distinct from the reference) of proper names, i.e. that which the speakers of a certain language, but not the non-speakers, understand on hearing the name (SVF II 166), namely the not absolutely determinate content of the imagination which is formed in mind in the absence of a concrete being when we think of it. The same holds *a fortiori* in the case of (general) concepts. Of course the thought of it, as a modification of the mind, is fully determinate and concrete. (Seneca *Ep.* 58, 15 seems to represent a less accurate and rigid formulation of Stoic theory tending to virtually confound the real non-being of specific incorporeals with the general unreality of οὐτινα and ἐννοήματα, of universals and imaginary concoctions. All these are then considered to be ἀσώματα by contrast to true bodily being). The following scheme apparently represents the stricter Stoic division of what can be thought:

[What can be thought is hardly nameable *realiter* since it may be *non-some-thing*, although it is not (absolute) *nothing*. Some referred to this abstraction as oneness (ὅν, SVF II 329); but genuine oneness pertains to the cohesion of real being alone].



The ἐννόημα is really non-what, οὐτι, but quasi-something, ὡσανεὶ τι (I 65; esp. Diogenes Laertius VII 61). — It all breaks down to the relation between λεκτά and ἐννοήματα. In strict sense they are distinct (Cf. SVF II 168). “Sayable” (λεκτόν) is what subsists as object of a *logical* imagination, i.e. of an imagination that can be expressed in (complete or incomplete, i.e. full blown or merely predicational without subject determination) *propositional* form; SVF 187 (= Sextus *adv. math. VIII* 70): λεκτόν δὲ ὑπάρχειν φασὶ τὸ κατὰ λογικὴν φαντασίαν ὑφιστάμενον· λογικὴν δὲ εἶναι φαντασίαν καθ’ ἣν τὸ φαντασθέν ἐστὶ λόγῳ παραστήσαι. Also II 181. Cf. II 87: νοεῖται δὲ καὶ κατὰ μετάβασιν τινα, ὡς τὰ λεκτά, καὶ ὁ τόπος. Accordingly, there are two kinds of λεκτά, αὐτοτελῆ (what is said in complete λόγοι) and ἐλλιπῆ (what is said in elliptical or deficient λόγοι): the distinction corresponds to that between full propositional forms esp. of the simple subject-predicate — type (Socrates runs) and incomplete propositions or predicates (e.g. runs). SVF 181-188; 488 etc. Cf. esp. Diogenes Laertius VII 63 sqq. Substrate, matter, substance on the one hand; quality and the fully determinate concrete being (ἰδίως ποιόν) on the other; are real bodies, i.e. genuine beings. But while whiteness and prudence are bodies (as they consist in spirit being modified in certain ways and in substance being modified accordingly), *being white* or *prudent*, or *that Socrates is white* or *prudent* are *not* beings, although they essentially relate to beings, i.e. to Socrates, Socrates’ whiteness and prudence. They are analytical reasonings — out of an ἰδίως ποιόν into its constituents, whether by reference specifically to it (in the latter case) or not (in the former). Such logical unfoldings (complete or partial) are true or applicable when there *obtains* (τυγχάνον, II 166) a corresponding unified physical being, just as space, e.g., is filled up when *occupied* by physical body. The λεκτά are thus *incorporeal* but *somethings*. In contradistinction to the λεκτόν, the ἐννόημα is the content of *mental* imagination, of a mental grasping, *not yet considered in the concatenation of a λόγος*; SVF I 65 (ἐννόημα is the ἰδέα, the common content of what is subsumed under a universal), characteristically Diogenes Laertius VII, 61: ἐννόημα δὲ ἐστὶ φάντασμα διανοίας, οὐτι τι ὄν οὔτε ποιόν, ὡσανεὶ δὲ τι ὄν καὶ ὡσανεὶ ποιόν, οἷον γίνεται ἀνατύπωμα ἵππου καὶ μὴ παρόντος. Bereft of the determining propositional concatenation concepts in isolation become indefinite by losing their expressed or implied tie to a specific full corporeal being; they thus are rendered non-somethings. We may therefore distinguish: 1) whiteness as a quality and therefore a bodily existence; 2) being white or that it (A) is white, which are incorporeal *obtainabilities* so to speak, occupied by corresponding corporeal beings when there *obtains* that they are white; 3) the spoken or written expressions “whiteness”, “is white” etc., which are bodies; 4) thoughts of whiteness, or of that (it) is white, or of being white, or of the corresponding expressions, which as mind actually modified in specific ways, are really bodies, 5) and finally the logical *content* of such thoughts, i.e. the corresponding concepts, which are neither bodies, nor even incorporeals, in that they are *less* than the aforementioned obtainabilities, and more distant from concrete and substantive existents. The logical content of such mental graspings, the meaning intended, is a universal as such. On the other hand such mental graspings can occur in beings endowed with the faculty of reason; SVF II 83: ἔστι δ’ ἐννόημα φάντασμα διανοίας λογικοῦ ζώου· τὸ γὰρ φάντασμα, ἐπειδὴν λογικῇ προσπίπτῃ ψυχῇ, τότε ἐννόημα καλεῖται, εἰληφὸς τοῦνο-

μα παρὰ τοῦ νοῦ etc. This provides the transition to the looser, wider sense in which both ἐννοήματα and λεκτά are of the same kind and need not be separated as οὐτινα on the one hand and ἀσώματα but τινά on the other respectively. (So, apparently, Sextus Empiricus in II 166: cf. 167. But the account is confused. He utilizes the regular *propositional* explanation of λεκτόν; but his example is a *proper name*. The sense of a proper name (as distinct from its reference, and also from the actual impression on the soul of its object *when* it is present — its ἀποτύπωμα, not its ἀνατύπωμα) is common meaning and a general entity, since it is not absolutely concrete and determinate.

There are four kinds of Stoic incorporeals: sayables, void, place and time. SVF II 331 (= Sextus *adv. math.* X 218): τῶν γὰρ τινῶν φασὶ τὰ μὲν εἶναι σώματα τὰ δὲ ἀσώματα, τῶν δὲ ἀσωμάτων τέσσαρα εἶδη καταριθμοῦνται ὡς λεκτόν καὶ κενόν καὶ τόπον καὶ χρόνον — On λεκτά cf. also II 132; 170; 335. As they are ἀσώματα, they cannot act on our mind when they are logically imagined by us; on the contrary it is our ἡγεμονικόν which so to speak *imaginizes itself on them*; SVF 85: ἔννια δὲ (sc. τῶν φανταστών) τοιαύτην ἔχει φύσιν, τοῦ ἡγεμονικοῦ ἐπ' αὐτοῖς φαντασιούμενου καὶ οὐχ ὑπ' αὐτῶν, ὅποιά ἐστι τὰ ἀσώματα λεκτά. — And in general, SVF 85: τὰ ἀσώματα οὐ ποιεῖ τι οὐδὲ φαντασιοῖ ἡμᾶς, ἀλλ' ἡμεῖς ἐσμεν οἱ ἐπ' ἐκείνοις φαντασιούμενοι. V. Sextus Empiricus *adv. math.* 406-410. — For the distinction κενόν, τόπος v. SVF II 503; 504; 505; I 95; cf. II 507. 'Ασώματων τὸ κενόν I 95; II 543 (= Diogenes Laertius VII 140); II 535; 541: 'Αναγκαῖον τοίνυν εἶναι τινα ὑπόστασιν κενοῦ. "Εστὶ δὲ ἀπλουστάτη ἢ αὐτοῦ ἐπίνοια, ἀσωμάτου τε καὶ ἀναφοῦς ὄντος, καὶ οὔτε σχῆμα ἔχοντος οὔτε σχηματιζομένου, καὶ οὔτε τι πάσχοντος οὔτε ποιούντος, ἀπλῶς δὲ σῶμα δέχεσθαι οἷον τε ὄντος. There is sharp distinction in Stoicism between matter (pure passivity) and space (incorporeality as absolute inactivity and impassivity). The Platonic *Timaeus* model is totally inapplicable. — Time is incorporeal. II 331; 520; 521 (Proclus in *Pl. Tim.* p. 271 Diehl: ἐν γὰρ ἦν τῶν παρ' αὐτοῖς ἀσωμάτων ὁ χρόνος, ἃ δὲ καταπεφρόνηται παρ' αὐτοῖς ὡς ἀδρανῆ καὶ οὐκ ὄντα καὶ ἐν ἐπινοίαις ὑφιστάμενα ψιλαῖς); 335. — An isolated Stoic voice (οἱ περὶ τὸν Βασιλεῖδην) negated the reality of incorporeals; SVF III p. 268.7 = Sextus Emp. *adv. math.* VIII 258: ὁρῶμεν δὲ ὡς εἰσὶ τινες οἱ ἀνηρηκότες τὴν ὑπαρξιν τῶν λεκτῶν, καὶ οὐχ οἱ ἑτεροδόξοι μόνον, οἷον οἱ Ἐπικούρειοι, ἀλλὰ καὶ οἱ Στωϊκοί, ὡς οἱ περὶ τὸν Βασιλεῖδην, οἷς ἔδοξε μὴδὲν εἶναι ἀσώματων. But this is extremely uncharacteristic, although there were available various ways of reducing the quasi-beingness of the Stoic ἀσώματα into more solid existences (thoughts, attributes of bodies, celestial or general movement).

The distinction between corporeality and materiality, the nature of bodily existence and the intrinsically connected problem of physical resistance in real beings (ἀντιτυπία) is a major crux in Stoic Physics. The principle of passivity is matter, the ἄποιος οὐσία, SVF I 85 = 493 = II 300 = III Archedemus 12 = Diogenes Laertius VII, 134; II 301; 318. Cf. II 313; 1168; 309; 374 (πρῶτον ὑποκείμενον ἢ ἄποιος ὕλη); 380; 580; I 86. Since οὐσία is necessarily corporeal, matter is quality - less body, ἄποιον σῶμα, II 320; 326. In itself it is absolutely bereft of all quality, yet it is always with some quality; I, 88 (= Chalcidius *Comm. in Tim.* 290 Mullach): sed ut innumerabilium diversarum, etiam cerearum figurarum, sic neque formam neque figuram nec ullam omnino qualitatem propriam fore censet (sc. Zeno) fundamenti rerum omnium silvae, coniunctam tamen esse semper et inseparabiliter cohaerere alicui qualitati. — Plutarch's criticism in *De Comm. Notitiis* 50 (1085E - 1086B) directed against the compatibility of the twin Stoic doctrines regarding the qualitylessness of matter and the corporeality of qualities, is external to the system. Materiality and corporeality do not coincide in Stoicism: the divine spiritual agency that forms Ur-matter is *corporeal, yet immaterial*; but it is intrinsically connected to matter, permeating it thoroughly. The alleged Stoic response (SVF II 380) to the plutarchean criticism (1086A-B), to the effect that ultimate substance is called ἄποιος οὐχ ὅτι πάσης ἐστέρηται ποιότητος ἀλλ' ὅτι πάσας ἔχει τὰς ποιότητας, cannot be genuine. For, indeed, all qualities inhere spermatically in the primal being composite of Ur-Matter and Ur-Spirit, in the divine agency together with its substantial foundation, but not in the πρώτη ὕλη itself; unless one injects aristotelian phraseology into the Stoic position, and speaks consequently of a potential inherence in matter of all the forms which it is capable of assuming. — Corporeality consists in tri-dimensionality; body is something extended in three dimensions (SVF II 357; 358; III Apollodorus 6: σῶμα δ' ἐστὶ... τὸ τριχῇ διαστατόν, εἰς μῆκος εἰς πλάτος εἰς βάθος. Τοῦτο δὲ καὶ στερεόν σῶμα καλεῖται). Ἀντιτυπία belongs not to corporeal being as such, but to substance and matter, or

rather to the being composed of spirit and matter. But then body and space exhibit the same essential character, extensionality, and this consequence was precisely what was imputed on the Stoics; II 502. A verbal paradox was also drawn from it: if extension essentially characterises both body and space, and if space is receptive of body, then dimensionality is receptive of dimensionality; II 536 p. 171. 20. In fact Chrysippus himself declared the *similarity* of geometrical magnitudes and time, that is of spatial and temporal extension, to corporeal nature in respect of the fundamental feature of extensionality, namely *divisibility*; II 482: Χρύσιππος ἔφασκε τὰ σώματα εἰς ἄπειρον τέμνεσθαι καὶ τὰ τοῖς σώμασι προσεοικότα, ὅσον ἐπιφάνειαν, γραμμὴν, τόπον, κενόν, χρόνον. The difference lying in that substance is body with the capability of undergoing the action of another (*and as a result of this is material resistance constituted*); while divinity is body with the power to act on another (*and this is what its essential pervasiveness effects*). Space on the other hand and mathematical extensionality is body *neutralized* so to speak, deprived of its inherent power to act or suffer. The triple distinction among spatial non-being, corporeal being and (material) substance makes clear that it is material substance that is ἀντιτυπής; SVF II 320 (Plotinus). This accounts for its passivity, the capability to be qualified at all. Thus it is not strictly correct when it is affirmed in II 381 (from the *de qualitat. incorporeis* ascribed to Galen) that τοῦ σώματος τοῦτον ὅρον εἶναι φασιν, τὸ τριχῇ διαστατὸν μετὰ ἀντιτυπίας. But the context makes it clear that the question is about material substance vis-à-vis qualities. As to the other similar testimony in II 501 (Sextus Empiricus *adv. math.* X, 12): ὁ τόπος... τὰς τρεῖς ἔχων διαστάσεις, μήκος βάθος πλάτος, *χωρὶς ἀντιτυπίας*: τοῦτο γὰρ ἴδιον ἦν σώματος. But here again what is meant by σῶμα is material substance. Besides the passage X 7-12 (reproduced by von Arnim as II 501) is definitively peripatetic and has only indirect relationship to Stoicism, as can be seen even by the Aristotelian interpretation of the Hesiodic chaos (§ 11) as space-receptacle (χάος λέγων τὸν χωρητικὸν τῶν ὄλων τόπον). The Stoics characteristically construed Chaos as the χύσις of the fluid substance; I 103; 104; II 564; 565; 437. — Matter does not hinder the operation of the active principle; it is absolutely yielding to the formative agency of divinity. It possesses just the appropriate resistance required for the working on it of the creative force. Cf. SVF II 343: σωματικῶς τὰ ποιοῦντα ποιεῖν καὶ τὰ πάσχοντα πάσχειν· ὁθισμοῦ γὰρ δεδέχεται καὶ ἀντιτυπίας καὶ ἐπερείσεως καὶ οὐκ ἄλλως γέγονεν. *Matter without ἀντιτυπία* (and not held together by its opposite pole of divine tensional corporeality) *would turn in to mere incorporeal* (inactive and impassive) *space*. On the other hand material resistance is due to the spiritual tension, grasping and unifying it. Matter has as much ἀντιτυπία as is determined by the way that spirit holds it together, i.e. by its proper quality. And that strength of ἀντιτυπία is in each case of the degree required for the necessary realization of the overall plan of fatal cosmic lawfulness. *Least* resistance is offered by matter when Godhead is alone as the sole existence without shaped World; just as aetherial fire is the *subtlest* body in the present state (διακόσμησις). *Least* resistance implies *maximal* cohesive power. On this Stoic paradox cf. *Excursus IV*.

The passivity of being, of material existence, the ground of all change is manifested in only two ways; substance can suffer either *division* or *confusion* (whereby its distinctive character is merged with that of another into something new). Confusion refers to parts of the total substance, and presupposes a formed World. Division is primary, in that it affects in principle even primal being and the entirety of substance. It pertains to substantial being as such. II 317: ταύτην δὲ (sc. τὴν πρώτην ὕλην) ἀτίδιον, οὔτε ἀΐξουσιν οὔτε μείωσιν ὑπομένουσαν, διαίρεσιν δὲ καὶ σύγχυσιν ἐπιδεχομένην κατὰ μέρη etc. I 87: τὰ δὲ μέρη ταύτης (sc. τῆς πρώτης ὕλης) οὐκ αἰεὶ ταῦτα διαμένειν ἀλλὰ διαίρεῖσθαι καὶ συγχεῖσθαι. II 318: δι' ὄλων τε μεταβλητὴν καὶ δι' ὄλων διαιρετὴν λέγουσιν εἶναι, καὶ πᾶσαν οὐσίαν πάσῃ συγχεῖσθαι δύνασθαι, ἡνωμένην μέντοι. The last clause emphasizes the *actual* cohesion, continuity and unification of all substance always. V. II 424; 543; 546: absolute cohesion of a continuum, total absence of void from being, universal συμπάθεια and organic connectedness of all the parts within one whole — these three doctrines go together. — The division of corporeal being proceeds *ad infinitum*; II 482: Χρύσιππος ἔφασκε τὰ σώματα εἰς ἄπειρον τέμνεσθαι καὶ τὰ τοῖς σώμασι προσεοικότα, ὅσον ἐπιφάνειαν, γραμμὴν, τόπον, κενόν, χρόνον. *Ibid.* (= III Apollodorus 4 = Diogenes Laertius VII, 150): καὶ παθητὴ δὲ ἐστίν (sc. ἡ οὐσία)... εἰ γὰρ ἦν ἄτρεπτος, οὐκ ἂν τὰ γινόμενα ἐξ αὐτῆς ἐγένετο. ἔνθεν κάκ<ολουθ>εῖν (with von Arnim) ὥς ἡ τε τομὴ εἰς ἄπειρόν ἐστιν (ἢν <οὐκ> ἄπειρόν φησιν ὁ Χρύσιππος (thus it should be read against von



Arnim's construal): οὐ γάρ ἐστὶ τι ἄπειρον, εἰς ὃ γίνεται ἡ τομὴ ἀλλ' ἀκατάληκτος ἐστὶ, καὶ τὰς κρᾶσεις δὲ διόλου γίνεσθαι. Division *ad infinitum* means unceasing, neverending division, not infinite division concluded (Division *ad infinitum* renders possible the κρᾶσις δι' ὧν, the mutual complete interpenetration of two or more distinct *bodies*). — The division of body, if *actually* carried on unimpeded, annihilates being, by the resulting dispersion of it into the unlimited emptiness of Infinity, into the swallowing vastness of non-being. — Poseidonius' theory concerning four kinds of generation and destruction, one (ἀλλοιώσις) applying to substance, the rest (διαίρεσις, σύγχυσις, ἀνάλυσις = ἐξ ὧν) τοῖς ἰδίως ποιόν (Aelius Didymus Fr. 27, *Dox Gr.* p. 462 = Fr. 96 Edelstein-Kidd), is the unsatisfactory result of a syncretistic manoeuvre.

*The passivity of matter grounds its changeability.* II 301: τὴν δὲ ὕλην πάσχειν τε καὶ τρέπεσθαι. 305: τρεπτὴν καὶ ἀλλοιωτὴν καὶ ρευστὴν (sc. τὴν ὕλην εἶναι). 309: δι' ὧν τρεπτὴ. 324: Τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ ρευστὴν ὅλην δι' ὅλης τὴν ὕλην. 1107: materiam enim rerum ex qua et in qua omnia sint, totam esse flexibilem et commutabilem etc. — Change in being can be in general of only two basic kinds: either being suffers in the *substance* or alters in *quality*. Substance consisting in material corporeality, it is affected solely by *division*; while alteration in quality ultimately reposes in *fusion* with a different being resulting in a new characteristic. Confusion of substances and qualitative change (as well as blending) are made possible through the divisibility of matter. II 473 (Alexander Aphr. *de mixtione* p. 216.22 Bruns = p. 116 Todd): τὰς δὲ τινὰς συγχύσει (sc. γίνεσθαι) δι' ὧν τῶν τε οὐσιῶν αὐτῶν καὶ τῶν ἐν αὐταῖς ποιότητων συμφειρομένων ἀλλήλαις, ὥς γίνεσθαι φησιν (sc. Chrysippus) ἐπὶ τῶν ἱατρικῶν φαρμάκων, κατὰ σύμφθαρσιν τῶν μίγνυμένων ἄλλου τινος ἐξ αὐτῶν γεννωμένου σώματος. II 471: τὴν δὲ σύγχυσιν δύο <ἢ> καὶ πλειόνων ποιότητων περὶ τὰ σώματα μεταβολὴν εἰς ἑτέρας διαφερούσης τούτων ποιότητος γένεσιν etc. This fusion of different qualities into a new one presupposes the total interpenetration of the merging substances, their ἀντιπαρέκτασις (mutual co-extension), whereby each pervades thoroughly the other down to every part of it however small. II 472: Σύγχυσις δὲ ἐστὶ φθορὰ τῶν ἐξ ἀρχῆς ποιότητων, πᾶσι τοῖς μέρεσιν ἀντιπαρεκτεινομένων, εἰς διαφερούσης μῆδ' ἑτέρας γένεσιν etc. Indeed such interpenetration of bodies (i.e. of substances and qualities) takes place in blending as well (κρᾶσις, μίξις) where there is no destruction of qualities and emergence of some new one, but a commingling that leaves its constituents unchanged; II 473 (Alexander Aphr. *op. cit.* 216.25 Bruns): τὰς δὲ τινὰς γίνεσθαι μίξεις λέγει, δι' ὧν τινῶν οὐσιῶν τε καὶ τῶν τούτων ποιότητων ἀντιπαρεκτεινομένων ἀλλήλαις μετὰ τοῦ τὰς ἐξ ἀρχῆς οὐσίας τε καὶ ποιότητος σώζειν ἐν τῇ μίξει τῇ τοιαύτῃ, ἣν τινὰ τῶν μίξεων κρᾶσιν ἰδίως εἶναι λέγει etc... (217.9 Bruns) τὴν δὲ τοιαύτην ἀντιπαρέκτασιν τῶν κίρναμένων ὑπολαμβάνει γίνεσθαι χωρῶντων δι' ἀλλήλων τῶν κίρναμένων σωμάτων, ὥς μὴδὲν μόριον ἐν αὐτοῖς εἶναι μὴ μετέχον πάντων τῶν ἐν τῇ τοιοῦτῃ μίγματι· οὐκέτι γὰρ ἂν, εἰ μὴ τοῦτο εἴη, κρᾶσιν ἀλλὰ παράθεσιν τὸ γινόμενον εἶναι (cf. II 471; 472). — Full corporeal interpenetration was the crux of Stoic natural philosophy. Alexander Aphr. *op. cit.* 226.34 Bruns sqq. (SVF II 475), esp. 227.10: τούτου δὲ τοῦ σώματος χωρεῖν διὰ σώματος, ἐξ' οὗ σχεδὸν πάσης τῆς φυσιολογίας αὐτοῖς ἀνήρτηται τὰ πείσματα. — Such mutual co-extension of substances and body-going-through-body are possible because of matter's infinite divisibility. Therefore all physical changefulness is reduced ultimately to the *primal* passivity, *divisibility*. And this is as it should, since the fulness of being consists in corporeality, and (tridimensional) extensionality is of the essence of corporeality. — Locomotion (movement in space) is also evidently reducible to division of matter in a system emphasizing the absolute cohesion of substance. Material divisibility is what makes possible for the divine Spirit to realize the σπερματικοὶ λόγοι of being.

All change, passivity itself, presupposes *divisibility*. We are thus led irresistibly to the central question of Stoic Physics: What keeps being together? Why is there being rather than non-Being? Why does Being not disappear into Non-Being? Infinity as the terrible womb of cosmic fertility, passing through well-defined stages (v. *Excursus I* to A.L. Pierris, *Hellenistic Philosophy* etc. in the present edition), has reached its climax of ontological negativity: it is absolute non-being, totally bereft of all quality, character and substance, something entirely inert, inactive and impassive. Despite such existential neutrality, it yet constitutes the sole danger to Being; not because of any influence exercised on it by commission or omission, but simply by reason of its capacity to accept and receive the disintegration of Being; which again is due to two factors; *first*, to a certain similarity

between being and non-being, between body and void: namely *extensionality*; and, *secondly*, to the passivity of the substantial aspect of being (matter).

## 2. EXCURSUS II: ON THE COHESION OF BEING AND ON THE EXISTENCE OF NON-BEING

Pythagorean Dualism consisted initially in a speculative elaboration of deep pristine religious experiences concerning the antithesis between Male and Female (Heaven and Earth) as principles of reality, between the Olympian and the Chthonic as poles of existence. Vid. A.L. Pierris, *Origin and Nature of early Pythagorean Cosmogony*, in K. Boudouris (ed.) *Pythagorean Philosophy*, 1992 pp. 126-62. The logicomithical nature of that dualism tended later, in classical times, to be overshadowed by a mathematical model, which however kept more or less emphatically its symbolic undertones. The pythagorean nature of the dualism in the *second* part of Parmenides' poem (28B8.53-61) is clear. Cf. A.L. Pierris, *op. cit.* p. 130, nn. 27a-28. But a distinct parallel line of development was instigated when the Theory of Being conceived by pure thought in the first part of the poem was itself considered as an extreme and absolute case of Dualism. It is for this reason that the analysis of (absolute) being in the *first* part of Parmenides' poem is directly connected to Atomic, Epicurean and Stoic Physics. For the crux of the argumentation lies in the emphasis on the *absolute cohesion of being*. And on this theme does the entire Ontology ends, with a detailed, positive description of beingness. Being as such is an absolute; there exists no more or less density of being; for neither is there non-being that would divide being from being, or prevent being from reaching being, thus creating anomalies in distribution; nor does being exist in a way that allows difference of being-concentration; for being is *inviolable*: nothing can be subtracted from it somewhere and be added to it elsewhere (B8.44-48). As there is not more or less being here or there (no different density or rarity), being homogeneously attaches to being, and it is not severed from itself, it does not present occasion for whatever differentiation of part from part; this absolute homogeneousness makes it a uniformly unified continuum (B8.22-25). Being stays with itself in itself, and thus remains steadfastly firm and everlasting (B8. 29-30). It is unmoved and changeless (B8. 26; 38): its *necessary* homogeneity precludes the possibility of alteration. Being is equal to itself in every respect (and direction), and thus lies homogeneously within its limits (B8.49). For a limit it has, otherwise it would stand in need of something else; but there is nothing beyond it - or, alternatively for Parmenides, there is only non-being beyond it (B8.32-37). Thus we get, by rounding it all up, the famous positive image of being (B8.42-44):

αὐτὰρ ἐπεὶ πείρας πύματον, τετελεσμένον ἐστί  
πάντοθεν, εὐκύκλου σφαίρης ἐναλίγκιον ὄγκῳ,  
μεσάρθεν ἰσοπαλὲς πάντῃ.

The whole argument from B8.22 to the end of the first part centers therefore round *continuity and cohesion*. Most relevantly for the Stoic position sounds the succinct formulation, in B4:

λεῦσε δ' ὅμως ἀπεόντα νόῳ παρεόντα βεβαίως·  
οὐ γὰρ ἀποτμήξει τὸ ἐὶν τοῦ ἐόντος ἔχεσθαι  
οὔτε σκιδνόμενον πάντῃ πάντως κατὰ κόσμον  
οὔτε συνιστάμενον.

Mind discerns the co-presence of being with being; there can be no scattering, nor compression of being. — The inviolability (ἄσυλον) of Being (which comprises its unbegottenness and imperishability) elaborated in the former section of the first part, B8.1-21), finds logicomithical expression in repeated statements of sacred Necessity, Fate, Justice prohibiting Being from being otherwise than uniform Being. Thus (B8.37-8): τὸ γε (sc. Being) Μοῖρ' ἐπέδησεν/οὔλον ἀκίνητόν τ' ἔμεναι or (B8.30-1): κρατερὴ γὰρ Ἀνάγκη/πείρατος ἐν δεσμοῖσιν ἔχει, τὸ μιν (sc. Being) ἀμφὶς ἔργει or (B8.13-

5): τοῦ εἶνεκεν οὕτε γενέσθαι/οὔτ' ὀλλυθῆναι ἀνῆκε Δίκη χαλάσασα πέδησιν/ἄλλ' ἔχει cf. B8.26-7: αὐτὰρ ἀκίνητον μεγάλων ἐν πείρασι δεσμῶν/ἔστιν ἀναρχον, ἄπαυστον etc.

There is emphatic use of vocabulary signifying binding, tying, fastening, shackling, bonds, fetters. The question is precisely the one confronting Stoic Physics: what keeps being together? What makes so that ἔδν ἔδντι πελάζει; (B8.25). Parmenides answered that the necessary homogeneity of being renders it inviolable: οὐδὲ διαιρετόν ἐστιν, ἐπεὶ πᾶν ἐστιν ὁμοῖον (B8.22; cf. 8.44-49). The absolute uniformity of being, on the other hand, presupposes, as Parmenides very clearly saw, the absolute non-existence of non-being. If non-being exists in whatever way, then it can break up the continuity of being and disperse it into the vacuum (cf. B8.46-7) just as the Pythagoreans admitted to be the case (58B30: καὶ τὸ κενόν δ' διορίζει τὰς φύσεις, ὡς αἰτίου ὄντος τοῦ κενοῦ χωρισμοῦ τινος τῶν ἐφεξῆς καὶ διορίσεως: ...καὶ τὸ κενόν, δ' διορίζει ἐκάστων τὰς χώρας αἰεὶ), although they counterbalanced this effect of Infinity by the corresponding action of Limitation. If non-being exists in whatever way, it can also allow a greater or lesser concentration of being in different respects or places by intermingling with it. The idea was already expressed in a pythagorean setting. V. Xuthus FV 33 (= Aristotle *Phys.* 216b22). For Parmenides there is just (ungraded) *fullness of being* (πᾶν δ' ἐμπλεόν ἐστιν ἔδντος B8.24), *one continuum of it* (ἐν, συνεχές B8.6; οὐδ' ἀτέλεστον should of course be read in 8.4). In Melissus it is found an explicit articulation of the idea that the non-existence of void (= non-being) entails *immoveability* (in respect of locomotion) and *unchangeability* (in respect of condensation and rarefaction) of being, and, therefore, *one absolute fullness of being* (πλέων, πλήρης); FV 30 B7 §§ 7-10: οὐδὲ κενεόν ἐστιν οὐδέν· τὸ γὰρ κενεόν οὐδέν ἐστιν· οὐκ ἂν οὖν εἴη το γε μηδέν. Οὐδὲ κινεῖται (sc. τὸ δν)... πυκνὸν δὲ καὶ ἀραιὸν οὐκ ἂν εἴη. Τὸ γὰρ ἀραιὸν οὐκ ἄνυστόν πλέων εἶναι ὁμοίως τῷ πυκνῷ, ἀλλ' ἤδη τὸ ἀραιὸν γε κενεώτερον γίνεται τοῦ πυκνοῦ. Κρίσιν δὲ ταύτην χρὴ ποιήσασθαι τοῦ πλέω καὶ τοῦ μὴ πλέω· εἰ μὲν οὖν χωρεῖ τι ἢ εἰσδέχεται οὐ πλέων· εἰ δὲ μήτε χωρεῖ μήτε εἰσδέχεται, πλέων. Ἀνάγκη τοίνυν πλέων εἶναι, εἰ κενόν μὴ ἔστιν. *If emptiness does not exist, then being is absolute fullness.* Non-being is totally excluded from reality and the realm of existence, and Dualism of whatever form totally abandoned in favour of absolute Monism. — But in this determination Eleatism remained an isolated exception (disregarding its repercussions in some minor Socratic Schools). *The first part of the parmenidean poem was normally considered as an extreme form of Dualism*, and, therefore, the entire force of the question “What keeps being at all together?” was acutely felt.

Beingness for the archaic experience of reality is inseparable from corporeality. Being enjoys full physical existence; to be is to make some difference, to have some impact on the World. To make its presence felt, being must exercise some influence or at least exhibit the marks left by the operation of another existence on its face; it must *respond* positively or negatively, by action or passion to the surrounding cosmic environment, to the World — setting into which it takes functionally part. Such response, active or passive, evidently presupposes *body* in the pregnant hylozoistic pre-classical sense. Body is the repository of power; disembodied existence is evanescent substantiality melting away into non-existence. The soul of man after death, according to the Homeric World-view, is a mere quivering impotent shadow of existence, unable to inflict, unable to receive some influence, unless vivified to some extent by the juice of life, blood. This is the archetypal expression of the experience that was later crystallized in the Platonic suggestion and Stoic doctrine that being consists in the power to act or suffer an action.

That such understanding of beingness was underlying archaic speculation and reasoning is also evident from the Atomistic application of Eleatism. As Aristotle diagnosed, it was thought that if Parmenidean *non-being* existed somehow, then being is many beings, each consisting in a *full pleroma* of substantiality, such as the One-Being-Absolute would be, *if Non-Being did not exist*. Atomic Being is indivisible now, unscatterable. But why? Why was not the operation that dispersed the One-Being into *units of being* repeated within each unit? Eventually the answer was a “must” inexplicable: divisibility must stop somewhere in order for being to exist at all. But it has also been tried to answer that question with logical explanatory persuasiveness. Such a crucial attempt is the assumption of atomic partlessness. It is revealing to follow the history of this and alternative solutions to the main problem in Atomism archaic, classical and hellenistic. Thus Plutarchean *Epit.* I, 16, 2 (cf. Stobaeus *Ecl.* I, 14, 2) = *Dox. Gr.* p. 315 = Democritus A 48: οἱ τὰς ἀτόμους, περὶ τὰ ἀμερῇ

ἴστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομήν. Leucippus A 13 (Simplicius in *Phys.* p. 925.10): οἱ δὲ τῆς ἐπ' ἄπειρον τομῆς ἀπεγνώκότες, ὥς οὐ δυναμένων ἡμῶν ἐπ' ἄπειρον τεμεῖν καὶ ἐκ τούτου πιστώσασθαι τὸ ἀκατάληκτον τῆς τομῆς, ἐξ ἀδιαιρέτων ἔλεγον ὑφεστάναι τὰ σώματα καὶ εἰς ἀδιαιρέτα διαιρεῖσθαι. πλὴν ὅτι Λεύκιππος μὲν καὶ Δημόκριτος οὐ μόνον τὴν ἀπάθειαν αἰτίαν τοῖς πρώτοις σώμασι τοῦ μὴ διαιρεῖσθαι νομίζουσιν, ἀλλὰ καὶ τὸ *σμικρὸν καὶ ἀμερές*. Smallness as reason why beings are indivisible was probably the initial Leucippean conception (FV 68A 49: ἐνιοὶ δὲ ὑπὸ σμικρότητος ἀδιαιρέτα —, sc. τὰ σώματα τὰ πρῶτα —, καθάπερ οἱ περὶ τὸν Λεύκιππον). Consonantly to this it was held that the atoms were imperceptible, because of their extreme smallness (68A37). But Democritus directly contradicted atomic smallness; he held emphatically that there could be an atom of the size of the World (68A47: δυνατόν <δ'> εἶναι *κοσμοαίαν ὑπάρχειν* ἄτομον). In any case he advocated the existence of very large atoms (Bishop Dionysius apud Eusebius *Praep. Evang.* XIV, 23 (773b): ὁ δὲ καὶ μεγίστας εἶναι τινὰς ἀτόμους ὁ Δημόκριτος ὑπέλαβεν). It is therefore inaccurate to attribute to Democritus the idea that *all* atoms must needs be imperceptible (68A37). To speak of indissoluble firmness (ἄλυτος στερεότης) as cause of atomic unbrokenness is to evade the real issue. (Cf. Diogenes Laertius IX, 44: ἅπερ (ἄτομα) εἶναι ἀπαθὴ καὶ ἀναλλοίωτα διὰ τὴν στερεότητα. But the view was characteristically attributed to Epicurus: FV 68A49: ἀπαθὴ δ' ὑποτίθενται τὰ σώματα εἶναι τὰ πρῶτα· τινὲς μὲν αὐτῶν ὑπὸ σκληρότητος ἄθραυστα, καθάπερ οἱ περὶ Ἐπίκουρον, ἐνιοὶ δὲ ὑπὸ σμικρότητος ἀδιαιρέτα, καθάπερ οἱ περὶ Λεύκιππον). Simplicius gives a general explanation as to why, according to old Atomists and Epicureans as well, the atoms are indivisible (ἀδιαιρέτοι) and impassible (ἀπαθείς): διὰ τὸ *ναστάς* εἶναι καὶ ἀμοίρους τοῦ κενοῦ· τὴν γὰρ διαίρεσιν κατὰ τὸ κενὸν τὸ ἐν τοῖς σώμασι ἔλεγον γίνεσθαι (67A14). This is in substance the parmenidean aetiology (applied in a quasi-melissean sense; 30B8 §§2; 6: εἰ πολλὰ εἴη τοιαῦτα χρὴ εἶναι οἷον περὶ τὸ ἐν). But since the real existence of non-being has broken the all-unity of being into many beings, what can prohibit the repetition of such breaking up (especially in view of the intrinsic divisibility of corporeal and spatial extension, which is but its potentiality)? It is evident that Atomism is necessarily driven towards the hypothesis of *partless atoms* however large. Bishop Dionysius apud Eusebius *Praep. Evang.* XIV 23 (773b) assigns the introduction of the notion of partless bodies (ἀμερῆ σώματα) to Diodorus Cronus, and, under the appellation of solids without interstices or joints (ἄναρμοι ὄγκοι) to Heraclides Ponticus: οἱ δὲ τὰς ἀτόμους μετονομάσαντες ἀμερῆ φασιν εἶναι σώματα τοῦ παντός μέρη, ἐξ ὧν ἀδιαιρέτων ὄντων συντίθεται τὰ πάντα καὶ εἰς ἃ διαλύεται. Καὶ τούτων φασὶ τῶν ἀμερῶν ὀνοματοποιόν Διόδωρον γεγονέναι· ὄνομα δέ, φασίν, αὐτοῖς ἄλλο Ἡρακλείδης θέμενος ἐκάλεσεν <ἀνάρμους> ὄγκους, παρ' οὗ καὶ Ἀσκληπιάδης ὁ ἱατρὸς ἐκληρονόμησε τὸ ὄνομα. Cf. Sextus Empiricus *adv. math.* IX 363; X318; *Pyrrh. Hypot.* III 32; *adv. math.* X 85-6; 115 sqq. (v. 112); 143; Chalcidius *Comm. in Tim.* CCI Mullach. It is likely, however, that what Diodorus originated was a theory combining partless elementary bodies (atoms) with indivisible magnitudes (cf. Sextus *adv. math.* X 85-6). Democritus, on the other hand, would have thought of *physical* partlessness as an explanation of atomicity. Atoms, differing in size, and however large, are not made up of parts, i.e. of beings co-agglutinated, so to speak, together. Thus they do not have interstices and joints within themselves (they are *ἄναρμα* σώματα) and are, thus, true *elements* of existence. The influence of the parmenidean ontology is paramount. — For Atomism, the existence of the void is affirmed: *κενὸν γὰρ εἶναι*, Aristotle, *de gener. et corrupt.* 352a31. This *κενόν* is *μὴ ὄν* (Democritus A38) and *οὐδέν* and *ἄπειρον* (A37). In fact Aristotle explicitly connects *the existence of multiplicity, movement, generation, destruction and change in being with the existence of non-being*. He refers back the exposition of Atomism to Eleatism (*op. cit.* 324b35). Multiplicity and movement depend on the existence of the void. This proposition is accepted by both Schools. For the former (325a2 sqq.): ἐνίοις γὰρ τῶν ἀρχαίων ἔδοξε τὸ ὄν ἐξ ἀνάγκης ἐν εἶναι καὶ ἀκίνητον· τὸ μὲν γὰρ κενὸν οὐκ ὄν, κινηθῆναι δ' οὐκ ἂν δύνασθαι μὴ ὄντος κενοῦ *κεχωρισμένου*, οὐδ' αὖ πολλὰ εἶναι μὴ ὄντος τοῦ *διείργοντος* etc. For Leucippus (325a26 sqq.): τοῖς δὲ τὸ ἐν κατασκευάζουσιν (i.e. with the Eleatics he agreed) ὥς οὐκ ἂν κίνησιν οὐσαν ἄνευ κενοῦ, τὸ τε κενὸν μὴ ὄν καὶ τοῦ ὄντος οὐδὲν μὴ ὄν φησιν εἶναι· τὸ γὰρ κυρίως ὄν *παμπληρὲς* ὄν. Ἀλλ' εἶναι τὸ τοιοῦτον οὐχ ἔν, ἀλλ' ἄπειρα τὸ πλῆθος... ταῦτα δ' ἐν τῷ κενῷ φέρεσθαι (*κενὸν γὰρ εἶναι*) etc. And very revealingly, *Met* 985b4 sqq. (= 67A6): Λεύκιππος δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος στοιχεῖα μὲν τὸ πλῆρες καὶ τὸ κενὸν εἶναι φασί, λέγοντες τὸ μὲν ὄν τὸ δὲ μὴ ὄν, τούτων δὲ τὸ μὲν *πληρὲς* καὶ *στερεόν*, τὸ

ὄν, τὸ δὲ κενὸν καὶ μανόν, τὸ μὴ ὄν· διὸ καὶ οὐθὲν μᾶλλον τὸ ὄν τοῦ μὴ ὄντος εἶναι φασιν, ὅτι οὐδὲ τὸ κενὸν <ἔλαττον> τοῦ σώματος. — The principles of all existence are according to Atomism, the ἄτομοι (sc. οὐσίαι, or ἄτομα sc. σώματα) and the κενόν (Diogenes Laertius IX, 44); cf. Democritus B9: νόμος γλυκύ etc. .. ἔτεπ δὲ ἄτομα καὶ κενόν (also B125; 117; cf. Leucippus A32). The ἄτομα are the real φύσις (B168; A58), the fullness of being (ναστόν = πλήρες = δέν = ὄν = στερέον, Leucippus A8; cf. A14; 10; 11; 12; Democritus A37; 38; 40; 44; 45; 46; 47; 125 etc.): τὸ γὰρ κυρίως ὄν παμπλήρες ὄν, Aristotle *de gener. et corrupt.* 325a27. The antithesis of principles was that between fullness (ναστόν) and emptiness (κενόν) of being (A46), presence and absence of being. In a sense the void is the space as emptiness receptive of full being (68A37). — *The return to pythagorean dualism, but in terms of parmenidean ontology, determined the fundamental positions of Atomism.* Thus Thrasyllus (Diogenes Laertius XI 38) maintained the close affinity of Democritean theory to Pythagorean doctrine: δοκεῖ δὲ ζηλωτῆς γεγενῆσθαι (sc. Democritus) τῶν Πυθαγορικῶν· ἀλλὰ καὶ αὐτοῦ Πυθαγόρου μέμνηται θαυμάζων αὐτὸν ἐν τῷ ὁμωνύμῳ συγγράμματι (entitled Πυθαγόρης, Diogenes Laert. IX 45). Πάντα δὲ δοκεῖν παρὰ τούτου λαβεῖν, καὶ αὐτοῦ δ' ἂν ἀκηκοέναι, εἰ μὴ τὰ τῶν χρόνων ἐμάχετο. Πάντως μέντοι τῶν Πυθαγορικῶν τινος ἀκοῦσαι φησιν αὐτὸν Γλαῦκος ὁ Ρηγίνος κατὰ τοὺς αὐτοὺς χρόνους αὐτῷ γεγονώς. Φησὶ δὲ καὶ Ἀπολλόδορος ὁ Κυζικηνὸς Φιλόλαφ αὐτὸν συγγεγενῆσθαι. In fact the atomistic rendering of Pythagoreanism under Parmenidean perspective is attributed to Ecphantus, 51A1-2. And note, Aristotle *De coelo* 303a8: τρόπον γάρ τινα καὶ οὗτοι (sc. Leucippus and Democritus) πάντα τὰ ὄντα ποιοῦσιν ἀριθμούς καὶ ἐξ ἀριθμῶν. As is said of Ecphantus (*loc. cit.*): τὰς γὰρ πυθαγορικὰς μονάδας οὗτος πρῶτος ἀπεφῆναιτο σωματικὰς, i.e. indivisible units of being.

For Democritus atomic indivisibility was physical, as is clear from his postulating atoms of various sizes, and, indeed, of possibly huge dimensions. The partlessness of such physical elements consisted precisely in the fact of their elementarity, i.e. of their *not* being made up from lesser particles coglutinated, so to speak, together. This explained the lack of inner interstitial divisions segregating the cohesion of being within each atom (just as with the ἄναρμοι ὄγκοι of Heraclides Ponticus). But by the side of the assumed *physical indivisibility* of the atoms, their *logical divisibility* was an unavoidable necessity. Extension is a continuum, and thus both *pure space* and *extended being* must be essentially divisible. If there could exist *partless bodies*, there should also obtain *partless space*, as Diodorus explicitly declared (Sextus Emp. *adv. math.* X 86: τὸ γὰρ ἄμερές σῶμα ὀφείλει ἐν ἡμέρῃ τόπῳ περιέχεσθαι etc.). And how can we then evade the *real* divisibility of atomic being by invoking any *physical* indivisibility of *space*? Especially as the object of (true) noetic thought is (genuine) being (28B3: τὸ γὰρ αὐτὸ νοεῖν ἔστιν τε καὶ εἶναι); thought is always of what it is, since it is articulated in being (28B834-6): ταῦτόν δ' ἐστὶ νοεῖν τε καὶ οὐνεκεν ἐστὶ νόημα./οὐ γὰρ ἄνευ τοῦ ὄντος, ἐν ᾧ περατισμένον ἐστίν, εὐρήσεις τὸ νοεῖν). In the thorough Aristotelian discussions concerning the existence of indivisibles (*De gener. et corrupt.* 315b24-317a1; *Phys.* Z, 231a21 - 235b5; cf. *de Coelo* 303a3 sqq.), there is no question of any distinction between physical and logical divisibility in *continua*. There is just one *real* divisibility, existing potentially or carried on and realized actually to any given degree. E.g. 315b28-30 where indivisible magnitudes (ἀδιαίρετα μέγεθη) fall under the categories of bodies (σώματα) like the Leucippean and Democritean atoms) and planes (ἐπίπεδα) like the Platonic elementary triangles in *Timaeus*. (We should add the Xenocratean indivisible *lines* as the third alternative). *Phys.* 232a24: Ἀδύνατον ἐξ ἀτόμων εἶναι τι συνεχές, μέγεθος δ' ἐστὶν ἅπαν συνεχές. 232b24: λέγω δὲ συνεχές τὸ διαιρετὸν εἰς ἀει διαιρετά. 233b31: φανερόν οὖν ὅτι οὐδὲν ἐστὶ τῶν συνεχῶν ἄμερές. In fact Aristotle refers to atomic theorists as those who (*de Coelo* 303a5) φασὶ γὰρ εἶναι τὰ πρῶτα μέγεθη πλήθει μὲν ἀπειρα μέγεθαι δὲ ἀδιαίρετα. — That Democritus was fully conscious of the mathematical implications of his physical theory is indicated by the fact of devoting two books on this subject, in his work entitled *Περὶ ἀλόγων γραμμῶν καὶ ναστῶν* (Diogenes Laertius IX 47, reporting Thrasyllus' division of the Democritean corpus in tetralogies); how there can be incommensurable lines if there are ἄτομα, i.e. indivisible fullnesses of being? Democritus would have utilized his doctrine regarding differences in magnitude of the atomic beings, as *physical datum* that would account for mathematical irrationality. — Aristotle certainly includes the Atomists among his “ἐνιοὶ” who succumbed to both the powerful eleatic arguments: *first*, that unless there exists the non-being, being must be one; and, *second*, that unless

there exist indivisible magnitudes, being will be dissolved into insubstantial nothingness (*Phys.* 187 a1; cf. *FV* 29A 22; 23). — Persisting in Eleatism, one is inevitably led ultimately into the postulation of the *incorporeality of being*. Thus Melissus, 30B9; for corporeality entails extendedness, and this in its turn part-possession and divisibility. Melissus, it is true, accepted unlimitedness for true being (B2; 4), from which indeed he deduced the oneness of absolute being (B5; 6). Furthermore, he affirmed of being that it is infinite with regard to magnitude (B3: ἀλλ' ὥσπερ ἔστιν αἰ, οὕτω καὶ τὸ μέγεθος ἀπειρον αἰ χρή εἶναι). But how can being be simultaneously unlimited in magnitude and yet incorporeal? Simplicius explains (*In Phys.* 109.32 = 30B10): μέγεθος δὲ οὐ τὸ διαστατόν φησιν αὐτὸς γὰρ ἀδιαίρετον τὸ ὃν δείκνυσιν... ἀλλὰ μέγεθος τὸ διάγραμμα αὐτὸ λέγει τῆς ὑποστάσεως. (And similarly *op.cit.* 109.29 = B3). But Melissus' argumentation in B2-3, directed as it is against early Pythagorean Cosmogony (cf. A.L. Pierris *op. cit.* pp. 135 sqq.) of an embryogenetic World-formation, presupposes *extensional infinity*; the eternal cannot have an *inception* at this point, development in all dimensions, and such and such *limit* (ἀρχή, μέσον and πέρας or τελευτή according to the standard formula). *Infinity is deduced from eternity*. And precisely this deduction is castigated by Aristotle (*Soph. Elench.* 167b13; 168b35 = A10; cf. A11). Besides, Melissean Being is *fullness*, πλέων, stuffed so to speak up completely (B7 §§ 9-10; § 9... εἰ μὲν οὖν χωρεῖ τι ἢ εἰσδέχεται, οὐ πλέων· εἰ δὲ μήτε χωρεῖ μήτε εἰσδέχεται, πλέων); *it cannot thus be Space*. We end up thus with a Being which is infinitely extended, all-inclusive and one (πᾶν B2 *ad fin.*; ἕν), absolutely full and incorporeal, all at once. *One universal, partless atom* is the solution of the riddle. It is incorporeal as it does not share in the essential character of corporeality, divisibility in parts. Simplicius (*supra*) was right to construe Melissean *incorporeality* as, basically, *indivisibility*; only he anachronistically interpreted the magnitude involved as *non-extended swelling of existence* out of nothingness, *διάγραμμα τῆς ὑποστάσεως*. He should have spoken of the *unaffected infinite plenitude of existence*.

In Epicureanism we meet a refusal to proceed to an *ultimate* explanation of the *existence of being*. What really exists is bodies and space; *ad Herod.* 39-40; *ad Pyth.* 86; Sextus *adv. dogm.* III, 333; Plutarch *adv. Colot.* 1112E. Bodies are either compositions of elementary particles or elementary bodies (*ad Herod.* 40). These latter are fullnesses (μεσά § 42) indivisible and unchangeable, otherwise being would be dissolved into nothingness (*ibid.* 41): ταῦτα δὲ ἔστιν ἄτομα καὶ ἀμετάβλητα, εἴπερ μὴ μέλλει πάντα εἰς τὸ μὴ ὃν φθαρῆσθαι, ἀλλ' ἰσχύοντα ὑπομενεῖν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων πλήρη τὴν φύσιν ὄντα καὶ οὐκ ἔχοντα ὅπῃ ἢ ὅπως διαλυθήσεται, ὥστε τὰς ἀρχὰς ἀτόμους ἀναγκαῖον εἶναι σωμάτων φύσεις. Cf. § 54: αἱ δὲ ἄτομοι οὐδὲν μεταβάλλουσιν, ἐπειδήπερ δεῖ τι ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων στερεὸν καὶ ἀδιάλυτον, ὃ τὰς μεταβολὰς οὐκ εἰς τὸ μὴ ὃν ποιήσεται οὐδ' ἐκ τοῦ μὴ ὄντος, ἀλλὰ κατὰ μεταθέσεις <τινῶν> etc. (cf. Lucretius I, 551 sqq.). Division ad infinitum of bodies is negated; even a mental passing to continually less and less parts of a body is deemed impossible by Epicurus; *ad Herod.* 56-57. — There are *minimals in sensation*. These bear a resemblance to larger, compound bodies, in that one may conceive a mental passing (μετάβασις) from one part of them to another; yet they are dissimilar to the latter, since, if we (relying in the former similarity) attempt to introduce a division within them, and segregate two parts on either side of the cut, we end up with holding in perception sensibles *equal* to the initial one from which we started (§ 58). — To such perceptible minimal parts with unseparable, ungraspable parts, each as it were equal to the whole, there correspond the ultimate *atoms* of reality. These elementary particles of true being do have in a sense parts (since they do possess and *vary* in magnitude cf. 55-6), but such parts as cannot be grasped in themselves, and thus not quite real ones. Some among the atoms are *true minimal parts in extension*, and these constitute the limits of things and their units of measurement; but these cannot on their own form complete bodies (§ 59). They may be the genuine ἀμερῇ and absolute ἀμετάβλητα, if we read ἀμερῇ (instead of the possible ἀμυγῇ) in 59.5 with von Arnim, and ἀμετάβλητα (in place of ἀμετάβολα) in 59.8 with Usener. — Void is the incorporeal in itself, what cannot act or undergo any influence, § 67. Its only property is intangibility (*intactus*, Lucretius I, 454). — There must be ἄτομα if being is not to disappear into nothingness. But what holds together these indivisibles? Plutarchean *Epit.* I, 3, 18 = Stobaeus *Ecl.* I 10, 14: εἴρηται δὲ ἄτομος οὐχ ὅτι ἔστιν ἐλαχίστη, ἀλλ' ὅτι οὐ δύναται τμηθῆναι, ἀπαθὴς οὖσα καὶ ἀμέτοχος κενού. Simplicius, *In Arist. Phys.* 231a21 (925.13 Diels), claims that Epicurus abandoned the old atomistic explanation of the indivisibility of the elementary particles in terms of partlessness, because of the

severe Aristotelian critique against that notion. — Atomic indivisibility is, therefore, for Epicurus simply a datum of reality, the simplest and most natural physical theory of first principles consistent with experience.

The infinite multi-dynamism of fertility had to be conjugated in Pythagoreanism to the principle of Finiteness in order for the World not to collapse into chaotic eruption of uncontrollable power. With Eleatism, the terrible cosmic Womb became the impotent Abyss of Nothingness. Atomism of all sorts (Old Academy as well and logically-minded Socratic Schools) rehabilitated the second principle as *μη ὄν in existence*; but they could not satisfactorily explain why being, once broken up from its absolute Oneness by reason of the existence of non-being, would not disintegrate completely into that inert Infinity. Stoicism reverted to the cohesion of all being, but discovered that non-being, even existing, cannot threaten the integrity of being *from outside*. Yet internal danger there lurks, because of the very *corporeality of being*, and, consequently, of its divisibility.

### 3. EXCURSUS III: ON SPIRIT AND TENSION

The substance (substrate, matter) of all being is without quality but of a *definite quantity*. SVF I 87: οὐσίαν δὲ εἶναι τὴν τῶν ὄντων πάντων πρώτην ὕλην, ταύτην δὲ πᾶσαν ἰδίον καὶ οὐτε πλείω γιγνομένην οὐτε ἐλάττω. II 316; 317. Plotinus in II 320 assumes that the total material substance has a definite *magnitude* as well: διδῶσι δὲ καὶ σῶμα αὐτῇ —sc. τῇ ὕλῃ— ἅποιον αὐτὸ σῶμα λέγοντες· καὶ μέγεθος δέ. But this is inaccurate; *the actual size of the substance depends on its condition*. It is different, for example, at the beginning of the World-formation, and different in the present developed cosmic state. What the Stoics affirmed was that the *quantity of matter is constant*, as matter cannot be created *ex nihilo*, nor disappear in nothingness. So Origenes (in SVF 318) is more exact when he states: ἀλλ' οὐδὲ μέγεθος ἀποτεταγμένον ἔχουσα (sc. matter). — The definite quantity of material substance makes it *finite*. I 88 (Chalcidius): Deinde Zeno hanc ipsam essentiam finitam esse dicit unamque eam communem omnium quae sunt esse substantiam etc. III Antipater 32 = Apollodorus 4 = Diogenes Laertius VII, 150: σῶμα δ' ἐστὶ κατ' αὐτοὺς ἡ οὐσία καὶ πεπερασμένη. Cf. II 323. In general, II 603: πᾶν σῶμα πεπερασμένον εἶναι λέγουσιν. Chrysippus elaborated the general necessity, II 503: τὸ μὲν οὖν κενὸν ἀπειρον εἶναι λέγεσθαι· τὸ γὰρ ἐκτὸς τοῦ Κόσμου τοιοῦτ' εἶναι, τὸν δὲ τόπον (i.e. space actually occupied by bodily substance) πεπερασμένον διὰ τὸ μηδὲν σῶμα ἀπειρον εἶναι. Καθάπερ δὲ τὸ σωματικὸν πεπερασμένον εἶναι, οὕτως τὸ ἀσώματον ἀπειρον, ὃ τε γὰρ χρόνος ἀπειρος καὶ τὸ κενόν. Ὡςπερ γὰρ τὸ μηδὲ ἓν (or μηδὲν) τοῦ ἑνός (thus it should be read in place of the mss. μηδὲν οὐδὲ ἓν or μηδὲν ἓν and the vulgate since Canter μηδὲν οὐδὲν) ἐστὶ πέρας, οὕτως οὐ γέ (for the transmitted: οὐδὲ) τοῦ μηδενός (sc. ἐστὶ πέρας τὸ μηδὲ ἓν), οἷόν ἐστι τὸ κενόν. Κατὰ γὰρ τὴν αὐτοῦ ὑπόστασιν ἀπειρόν ἐστι· περατοῦται δ' αὐ τοῦτο ἐκπληρούμενον (i.e. when it is filled up by full corporeal substance)· τοῦ δὲ πληροῦντος ἀρθέντος οὐκ ἐστὶν αὐτοῦ νοῆσαι πέρας. The limit of corporeal being for the Stoics is not a being; the πέρας is not body; II 487. It is μηδὲν, II 486. It subsists only mentally (κατ' ἐπίνοιαν) not in rerum natura (II 488). It may be held that πέρας is not even any incorporeal existence like space or time, because these are extended, and thus akin to real being. What *in reality* bounds being is the non-being enveloping it; conversely what bounds non-being is being which limits non-being by occupying so much of it. Of course, strictly speaking, the void cannot limit, as it cannot act at all. The spirit in substance unites and limits it by giving it a quality apt to occupy a certain amount of space. Under this alternative, the text above would run: ὥςπερ γὰρ τὸ μηδὲ ἓν οὐδενός ἐστι πέρας, οὕτως οὐδὲ τοῦ μηδενός, οἷόν ἐστι τὸ κενόν. — Exactly analogous reasoning applies to temporal extension and events occurring, or entities enduring, in it. — The archaic opposition between πέρας and ἀπειρον physically construed is recaptured in the Stoic arch-contrariety between being and non-being. This is germane to atomistic applications of Eleatism. — A finite World engulfed in the infinity of Void: II 528; 534; 535; 536; 537; 538; 539; 543; 534; 195; 96; Diogenes Laertius VII 140; 143; 150.

This is a typical Pythagorean conception, Vid. A.L. Pierris *op. cit.* pp. 137-8, nn. 88-98. Cf. with regard to the infinite Void engulfing the World, SVF II 94: (τὸ κενόν) *κεχωρισμένον καὶ ἀθρόον εἶναι καθ' αὐτό, περιέχον τὸν οὐρανόν*, ὥς πρότερον μὲν φοντο τῶν ἀρχαίων τινές, μετὰ δὲ ταῦτα οἱ περὶ Ζήνωνα τὸν Κιτιέα. The ἀρχαῖοι meant here are precisely, principally, the early Pythago-

reans, as is explicitly observed by Philoponus in *Ar. Phys.* p. 613.23 (= SVF I 96). — Cf. on the subject, SVF I 95; II 535; 538; 539; esp. 543; 619; 503; 609; etc. — There is no void in the World, only continuous corporeal fullness of being; cf. I 95; II 424; 477; 502; etc. — Thus the totality of being (the World) exists in the midst of the infinity of non-being (the Void). The Void really exists (cf. II 502) — In one sense the Universe (τὸ πᾶν) is the World, in another it is the system of the World and the encompassing Void; Apollodorus 9, III p. 260. 24. Some reserved «τὸ πᾶν» for the latter sense, while employing «τὸ ὅλον» in the former; II 522-525.

Finite, unified corporeal substance in the midst of infinite empty Space; Being kept together in the midst of Non-being. Bodily fullness and substance without any intermixture of void and non-being. The aboriginal fear of what-is to become annihilated by being dissolved in the horrible chaos of what-is-not does not in fact turn into actual realization: there obtains a cohesive power keeping being together and upholding it in existence as full substance; such is the divine Spirit. SVF II 473 (Alexander Aphr. *de mixtione* p. 216.14 Bruns = p. 114 Todd): ἔστι δὲ ἡ Χρυσίππου δόξα περὶ κράσεως ἡδε· ἡνωσθαι μὲν ὑποτίθεται τὴν σύμπασαν οὐσίαν, πνεύματός τινος διὰ πάσης αὐτῆς διήκοντος, ὅφ' οὐ συνέχεται τε καὶ συμμένει καὶ συμπαθές ἐστίν αὐτῷ τὸ πᾶν. II 533 (Proclus *In Plat. Tim.* 138E Diehl): ἀπὸ τοῦ ἡνωσθαι τὴν οὐσίαν, τούτεστι τὴν ὕλην, σῶμα οὖσαν. No void exists in the World; II 543: ἐν δὲ τῷ Κόσμῳ μηδὲν εἶναι κενόν, ἀλλ' ἡνωσθαι αὐτόν· τοῦτο γὰρ ἀναγκάζειν τὴν τῶν οὐρανίων πρὸς τὰ ἐπίγεια σύμπνοιν καὶ συντονίαν. II 544 (cf. 545). 546: οὔτε μὴ ὅφ' ἐνδὸς τόνου συνεχόμενου αὐτοῦ καὶ τοῦ πνεύματος μὴ δι' ὅλου ὄντος συμφυοῦς, οἷόν τ' ἂν ἦν ἡμῖν ὁρᾶν ἢ ἀκοῦειν. 1013: ἡνωμένον τι σῶμα ὁ Κόσμος (οὔτε δὲ ἐκ συναπτομένων οὔτε ἐκ διεστώτων). 447. 448 (ἐν τι συνέχει τὸν τε σύνολον Κόσμον ἅμα τοῖς ἐν αὐτῷ). 470. 441 τὸ πᾶν ἡνωσθαι τε καὶ συνέχεσθαι, πνεύματός τινος διὰ παντός διήκοντος αὐτοῦ. — The idea is very clearly articulated by Cleomedes in response to Peripatetic criticism. SVF II 540 (= Cleomedes *Circul. doctr.* 1, 1 p. 7 Bake): Λέγεται κάκεῖνο ὑπ' αὐτῶν (sc. the Peripatetics) ὡς εἰ ἦν ἔξω τοῦ Κόσμου κενόν, χεομένη δι' αὐτοῦ ἡ οὐσία, ἐπ' ἀπειρον διεσκέδασθη ἂν καὶ διεσκορπίσθη. Ἀλλὰ, φήσομεν, ὡς μηδὲ τοῦτο δύναται παθεῖν· ἔξιν γὰρ ἔχει τὴν συνεχουσάν αὐτὴν καὶ συντηροῦσαν. Καὶ τὸ μὲν περιέχον αὐτὴν κενὸν οὐδὲν ποιεῖ (as being incorporeal), αὐτὴ δ' ὑπερβαλλούση δύναμις χρωμένη συντηρεῖ ἑαυτήν, συστέλλομένη τε καὶ πάλιν χεομένη ἐν αὐτῷ κατὰ τὰς φυσικὰς αὐτῆς μεταβολάς, ἄλλοτε μὲν εἰς πῦρ χεομένη, ἄλλοτε δὲ καὶ ἐπὶ κοσμογονίαν ὁρμῶσα. Even Alexander Aphrodisiensis (apud Simplicius in *Arist. Phys.* p. 671, 4 = II 552) accepts so much: εἰ δὲ λέγουσιν ὅτι τῆς ἔξεως τῆς αὐτῆς αὐτόν (sc. τὸν Κόσμον) συνεχούσης μένει, πρὸς μὲν τὸ μὴ σκεδάννυσθαι αὐτοῦ τὰ μόρια καὶ διασπᾶσθαι καὶ ἄλλο ἄλλαχού φέρεσθαι συνεργοῇ ἂν τι ἴσως ἢ ἔξιν etc. II 441 τοῦ μὴ διαπίπτειν, ἀλλὰ συμμένειν τὰ σώματα αἰτίον τὸ συνεχὸν αὐτὰ πνεῦμα. Very characteristically, 439 (Galen VII p. 525 Kühn): ποιεῖν δ' εἰς ἑαυτὸ λέγειν ὅτι οὐδὲν ἢ ἐνεργεῖν εἰς ἑαυτὸ παρὰ τὴν ἐννοίαν ἐστίν· οὕτως οὖν καὶ συνέχειν ἑαυτό. καὶ γὰρ οἱ μάλιστα εἰσηγησάμενοι τὴν συνεκτικὴν δύναμιν, ὡς οἱ Στωϊκοί, τὸ μὲν συνεχὸν ἕτερον ποιοῦσι, τὸ συνεχόμενον δὲ ἄλλο· τὴν μὲν γὰρ πνευματικὴν οὐσίαν τὸ συνεχὸν, τὴν δὲ ὕλικὴν τὸ συνεχόμενον. 440 (*id.*) ἅπαν τὸ ὄν ἐφασαν αἰτίας δεῖσθαι συνεκτικῆς εἰς τὸ εἶναι. All being needs a cohesive cause to keep it in existence. The Spirit, too, as a being, and indeed a corporeal one, presupposes a cohesive faculty for its existence. Only, it *itself* possesses that power, or rather is essentially characterized by the power to hold together first itself, and then the material substance which it permeates. Galen clearly states as much in 440; in 439 he is arguing *ad se ipsum*. What keeps together the entire World and all its parts is the one divine spirit (II 448; 447). However, in the elemental constitution of the World, the light and εὐτονα elements (fire and air) play the role of Spirit as against the heavy and ἄτονα ones (water and earth) which succumb to their action (cf. II 418; 439; 440, p. 145.1; 444; 443 p. 146.14). In fact, fire and air in combination are akin to the aetherial Breath which is the primal being, Godhead alone, spirit and first matter in their necessary copulation.

The cohesive power of the divine Spirit is realized as a *tension* (τόνος) permeating material substance and holding it together. Just as this τόνος in general constitutes the substance into full being, so its particular disposition impresses on matter definite qualitative being-determinations. SVF II 318: ὁ γὰρ συνὼν αὐτῇ (sc. τῇ οὐσίᾳ) τόνος καὶ δι' ὅλων κεχωρηκῶς πάσης τε ποιότητος καὶ τῶν περὶ αὐτὴν αἰτίων ἦν οἰκονομῶν. 310: μεμῖχθαι τῇ ὕλῃ λέγειν τὸν Θεόν, διὰ πάσης αὐτῆς διήκοντα, καὶ σχηματίζοντα καὶ μορφοῦντα καὶ κοσμοποιούντα τούτῳ τῷ τρόπῳ (i.e. through his



pervading the *passive* principle). — Divinity, that is the power of activity and causality, consists in spirituality. II 340: οἱ Στωϊκοὶ πάντα τὰ αἷτια σωματικά (perhaps we should correct with Diels to πνευματικά, adding in the following clause something like <ποιητικά>): πνεύματα γάρ. I 88: non deesse ei (sc. matter) *spiritum ac vigorem* ex aeternitate, qui moveat eam rationabiliter etc. I 533: haec Cleanthes in spiritum congerit, quem *permeatorem* universitatis affirmat. II 473 (Χρυσίππου δόξα): ἡνῶσθαι μὲν ὑποτίθεται τὴν σύμπασαν οὐσίαν, πνεύματός τινος διὰ πάσης αὐτῆς διήκοντος etc. II 441. Alexander Aphr.' criticism in *de mixtione* X (223.6 - 224.27 Bruns) is directed precisely against the idea that divine causality resides in spirit. When in the course of his argumentation he objects to the derivation of spirit from fire and air (224.14 Bruns = II 422), he evidently confuses what pertains to the fully developed World, and as such is created in each World-cycle (i.e. the elements) with what is eternally existent and *causes* cosmic formation. That the eternal divine spirit (principle of causality) is distinct from the four elements of the created Universe, or of any combination thereof, probably accounts for its identification with the aristotelian *fifth element* in the pneumatic medical School, as Galen reports (*introd. sive medicus* XIV 698 Kühn = SVF II 416): κατὰ δὲ τὸν Ἀθήναιον στοιχεῖα ἀνθρώπου οὐ τὰ τέσσαρα πρῶτα σώματα... ἀλλ' αἱ ποιότητες αὐτῶν... ὧν δύο μὲν τὰ ποιητικά αἷτια ὑποτίθεται, τὸ θερμὸν καὶ τὸ ψυχρόν, δύο δὲ ὑλικά, τὸ ξηρόν καὶ τὸ ὑγρόν, καὶ πέμπτον παρεῖσθαι κατὰ τοὺς Στωϊκοὺς τὸ διήκον διὰ πάντων πνεῦμα, ὅφ' οὐ τὰ πάντα συνεχέσθαι καὶ διοικεῖσθαι. This is typical syncretizing in the manner of the Middle Stoa. The genuine Stoic factor in it is the view that the celestial aether of the World is *consubstantial* with the primal being. But the Spirit as active *Principle* that forms (first) matter into primal being and aether is something distinct. *Yet as the active principle transforms itself, so is the matter qualified*. There is thus *systematic* ambiguity between spirit as Active Principle and Spirit as primal Being. Lack of sufficient awareness of that ambiguity is also betrayed (although "πρωτόγονον" refers to the first offspring of the two principles) in the doctrine of the ἀρχηγὸν καὶ πρωτόγονον πνεῦμα τὸ πρῶτον according to the Galenian *El ζῶον τὸ κατὰ γαστρός* (XIX 160 Kühn = SVF II 638; nevertheless the formulation there is rather more hylozoistic than the Stoic dualism would fully approve; but it stems from the medical Stoicism of the pneumatic School): Κόσμος τοίνυν ἐστὶν σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν μεταξὺ φύσεων, <πυρρός> καὶ ὕδατος καὶ ἀέρος (this is how the lacuna in the text ought to be filled; between celestial, aetherial quintessence and earth there lie the other elements, fire, air and water; Cf. for the genuine Chrysippean position II 527) καὶ τὸ διήκον ἔχον διὰ πάντων αὐτῶν ἀρχηγὸν καὶ πρωτόγονον πνεῦμα, ὅπερ καλοῦσι παῖδες φιλοσόφων ἢ ψυχὴν ἢ μονάδα ἢ ἄτομον (this "ἄτομον" should not be atheized with von Arnim; the spirit of divinity as well as the entire cosmic substance it unifies is an *unbreakable* continuum of full being without any emptiness) ἢ πῦρ ἢ ὁμωνύμως τῷ γένει πνεῦμα τὸ πρῶτον etc. (the primeval spirit homonym to the breaths and winds and blows and fiery, aetherial spirits of the developed World). — Stoicism however accepted fundamentally the four-element theory of Cosmos (cf. II 417). Spirit in the existing World is aetherial substance, fiery air or breath of fire (cf. II 442). Such is also the Ur-Spirit as primal existent, divine spirit in first matter: its substance is a fiery blow. That this is not the divine *principle* itself is evident from the fact that it is not existing without interruption. Even momentarily it is *extinguished* when God turns its proper aetherial substance in totally liquid semen at the preparatory stages of Cosmogony.

The divine spirit consists in a *tension* (τόνος). SVF II 441 (δεσμός πνεύματος): τίς γάρ καὶ ὁ τόνος τοῦ πνεύματος, ὅφ' οὐ συνδούμενα (sc. τὰ σώματα) τήν τε συνέχειαν ἔχει τὴν πρὸς τὰ οἰκεία μέρη καὶ συνήπται τοῖς παρακειμένοις; 447: ὁ διήκων πνευματικός τόνος καὶ συνέχων τὸν Κόσμον. 546: οὔτε μὴ ὅφ' ἐνός τόνου συνεχομένου αὐτοῦ (sc. the World) καὶ τοῦ πνεύματος μὴ δι' ὅλου ὄντος συμφοῦς etc. I 497: τὸν ἐν τῇ τῶν ὅλων οὐσίᾳ τόνον μὴ παύεσθαι. I 514: Ἡρακλῆς δ' ἐστὶν ὁ ἐν τοῖς ὅλοις τόνος, καθ' ὃν ἡ φύσις ἰσχυρά καὶ κραταιά ἐστιν, ἀνίκητος καὶ ἀπεριγένητος οὐσα, μεταδοτικός ἰσχύος καὶ τοῖς κατὰ μέρος καὶ ἀλκῆς ὑπάρχων. II 318: ὁ συνὼν αὐτῇ (sc. matter) τόνος καὶ δι' ὅλων κεχωρηκώς etc. Cf. 444; 785; 455. — Cleanthes seems to have been particularly prone in widely utilizing the notion of τόνος; v. I 563. cf. II 877; II 473; II 457; etc.

According to Chrysippus (active) being is the dynamic spirit with its two inherent tonic (tensional) movements, inward and outward (II 471): Χρύσιππος δὲ τοιοῦτόν τι διεβεβαιοῦτο· εἶναι τὸ ὄν πνεῦμα κινουὺν ἑαυτὸ καὶ ἐξ αὐτοῦ (cf. II 442 p. 146.10). II 441: τὸ πᾶν ἡνῶσθαι τε καὶ συνεχέσθαι,

πνεύματός τινος διὰ παντός διήκοντος αὐτοῦ... τίς γὰρ καὶ ὁ τόνος τοῦ πνεύματος, ὅφ' οὐ συνδούμενα τὴν τε συνέχειαν ἔχει τὴν πρὸς τὰ οἰκεία μέρη καὶ συνήπται τοῖς παρακειμένοις;... τοῦ μὴ διαπίπτειν, ἀλλὰ συμμένειν τὰ σώματα αἷτιον τὸ συνέχον αὐτὰ πνεῦμα. This Spirit keeps itself together, being thus also the principle of cohesion of all substance; the idea is expressed with reference to the spirit and fire of the existing Cosmos, of the νῦν διακόσμησις. — The characteristics and qualities of substance are just so many modifications of spirit. II 379: τὴν ποιότητα εἶναι πνευμάτως ἔχον ἢ ὕλην πωρ ἔχουσιν. Spirit being disposed in a particular way causes matter's disposition in the same manner, and thus the corresponding quality may be conceived as a particular disposition of either the active spirit or the passive matter. II 389: πνευματικὴ ἢ οὐσία ἔσται τῶν σωματικῶν ποιότητων. Concrete spirits in the developed World are of an airy nature, being airy tensions, II 449: καίτοι πανταχοῦ τὴν ὕλην ἀργὸν ἐξ ἑαυτῆς καὶ ἀκίνητον ὑποκεῖσθαι ταῖς ποιότησιν ἀποφαίνουσι, τὰς δὲ ποιότητας πνεύματα οὐσας καὶ τόνους ἀερώδεις, οἷς ἂν ἐγγένωνται μέρεσι τῆς ὕλης εἰδοποιεῖν ἕκαστα καὶ σχηματίζειν. The spiritual tension, expressed as outward and inward tensional movement of the spirit, constitutes the magnitudes and qualities on the one hand, the unification and existence on the other, respectively, of the thing to which it belongs, II 451: τονικὴν τινα εἶναι κίνησιν περὶ τὰ σώματα εἰς τὸ εἶσω ἅμα κινουμένην καὶ εἰς τὸ ἔξω· καὶ τὴν μὲν εἰς τὸ ἔξω μεγεθῶν καὶ ποιότητων ἀποτελεστικὴν εἶναι, τὴν δὲ εἰς τὸ εἶσω ἐνώσεως καὶ οὐσίας (cf. II 452). The movement to the interior is what prevents the dispersion of being into the Void; it keeps together the being of the spirit itself, it sustains it in one-ness and existence. The outward movement makes the spirit extend to the entire substance (matter); this extension does not progress indefinitely as it is counterbalanced by the inward movement which also continues unceasingly; thus substance is also kept together (cf. II 442, p. 146.8). The particular way in which the spirit unites matter, and the kind of the corresponding outward tensional movement impart on substance its individual quality, and, hence, size. For the τονικαὶ κινήσεις v. further II 448-453. There are two *opposite* such movements in each thing, which, as a result of their combined operation, leave it unmoved, but impart on it the cohesive *tension*; II 450; cf. 456; 455. — Galen (in II 450) raises the question whether the thing is actually moving along the two opposite directions in a continual succession of small, jerky movements cancelling each other by transposing the thing *alternatingly* in opposite senses, or whether the thing really remains in the same place, the two opposite “tensional movements” being rather powers exercising opposite influences without realizing themselves as actual alternating transpositions. The Stoics seem to have adopted the former construal (II 864; and so Simplicius in II 452 speaks of *δύναμιν ἢ μᾶλλον κίνησιν*); which appears consonant to their general rigorously realistic standpoint. — The opposite tensional movements are one *inward*, the other *outward*; the former constitutive of the thing's existence, oneness and determinate beingness; the latter of its size and quality; II 451; II 452: *δύναμιν ἢ μᾶλλον κίνησιν τὴν μανωτικὴν καὶ πυκνωτικὴν τίθενται* (rarefying and condensing), τὴν μὲν ἐπὶ τὰ ἔσω, τὴν δὲ ἐπὶ τὰ ἔξω· καὶ τὴν μὲν τοῦ εἶναι, τὴν δὲ τοῦ ποιοῦν εἶναι αἰτίαν. Cf. II 471 p. 152.31 sqq. 466; 458.

The function of the two opposite tensional movements has been described basically above. The inward movement tends to compress, the outward to swell; thus they are called condensative and rarefactive. The inward, if alone it existed, would reduce the spirit to a focal point; if the outward movement operated on its own, it would dilute being into infinity. We recover here a *third* application of Pythagorean dualism, now *within active being itself*. For all determinate being is caused by the active principle; the passive one is the perfectly yielding receptacle of the former's activity. Cf. II 551 p. 174.27 (Chrysippus): *ὅτι ταῖς εἰς τὸ αὐτῆς μέσον ἢ οὐσία καὶ ταῖς ἀπὸ τοῦ αὐτῆς μέσου διοικεῖται [καὶ] συνεχέσι* (or better: *καὶ συνέχεται*) *κινήσεσι*. In the central *point* (*πέρας*) and the infinite *expansion* (*ἄπειρον*) we recognize the Pythagorean original dualism.

A major crux in Stoic Elemental Physics is presented by the apparent contradiction between the *intensity* of the spiritual grasp on matter and the *density* of the thereby constituted *ποιὰ οὐσία*. For as fiery aether is the proper form of substance for materialized divinity, it must be characterized by the strongest possible cohesion and unification, and possess the mightiest cohesive and unifying potency; which appears paradoxical. The difficulty is connected to the Stoic doctrine of ἀντιτυπία; for the more resistant body would seem to be endowed with greater degree of cohesion (cf. *Excursus I*).

Thus the elements essentially consist in varying degrees of condensation of prime matter. When in ἐκπύρωσις matter has been all transformed into the fiery-aethereal substance of divinity, it occupies vast regions of space, immensely larger than the extent of the actual World-διακόσμησις. II 619; 609; 610. V. Plutarch *de comm. notitiis*, 35, 1077A sqq., the last part of which is in II 618 (cf. also II 744), where read: ἀλλὰ τοῦ γε Κόσμου πλέον (with Pohlenz instead of πάλιν) τὸ πῦρ, ὃ σπέρμα λέγουσιν εἶναι, καὶ μετὰ τὴν ἐκπύρωσιν εἰς σπέρμα μετέβαλε τὸν Κόσμον ἐκ βραχυτέρου σώματος καὶ ὄγκου χύσιν ἔχοντα πολλὴν καὶ τοῦ κενοῦ προσεπιλαμβάνοντα χώραν ἀπλετον ἐπινομένην τῇ αὐξήσει· γεγνημένου δ' αὐθις (sc. τοῦ Κόσμου) ὑποχωρεῖν τὸ μέγεθος καὶ συνολισθάνειν, δυσ-ομένης καὶ συναγομένης περὶ τὴν γένεσιν εἰς ἑαυτὴν τῆς ὕλης. V. Philo *de Aetern. Mundi* 99-103; cf. SVF II 611. — And in general, II 406: the elements change to each other *χύσεσσι τε τισὶ καὶ πιλῆσεσι*. To the compression (πίλησις) corresponds the condensation (σύστασις), II 413 p. 136.20 sqq. (cf. 471 p. 152.37). — That water is substance in greater *consolidation* than fire *seems* to contradict its being *less active*, and thus *less forcibly mastered* by divine spirit. The objection has thus been raised (Galen in SVF II 440) that it is absurd and contrary to common experience to consider what is hard, resistant and dense in need of cohesion; and even more absurd and repugnant to see in what is loose, soft and yielding the *cause* of cohesion. But the paradox is only apparent. For the more perfect penetration of the divine spirit in matter occurs when the substance is more pliable, more tense and elastic and thus more active; while slackness, relaxation and unstretchedness are the cause of increased resistance, and thus less compliance to the working of spirit. Cf. II 444: γῆν μὲν γάρ φασι καὶ ὕδωρ οὐθ' ἑαυτὰ συνέχειν οὐθ' ἕτερα, πνευματικῆς δὲ μετοχῇ καὶ πυρώδους δυνάμεως τὴν ἐνότητα διαφυλάττειν· ἀέρα δὲ καὶ πῦρ αὐτῶν τ' εἶναι δι' εὐτονίαν ἐκτικὰ, καὶ τοῖς δυσὶν ἐκείνοις ἐγκεκραμένα τόνον παρέχειν καὶ τὸ μόνιμον καὶ οὐσιῶδες. II 473 p. 155.33: καὶ τῶν στοιχείων... τὰ δύο, τὸ τε πῦρ καὶ τὸν ἀέρα, λεπτομερῆ τε καὶ κοῦφα καὶ εὐτονα ὄντα διὰ τῶν δύο, γῆς τε καὶ ὕδατος, παχυμερῶν καὶ βαρέων καὶ ἀτόνων ὄντων, διαπεφοιτηκέναι ὅλα δι' ὅλων, σφύζοντα τὴν οἰκίαν φύσιν καὶ συνέχειαν αὐτὰ τε καὶ ἐκεῖνα. Plutarch *de primo frigido*, 11: (ἡ πῆξις) πάθος μὲν ἐστὶν ὕδατος, ἔργον δ' ἀέρος· αὐτὸ μὲν γὰρ καθ' ἑαυτὸ τὸ ὕδωρ εὐδιάχυτον καὶ ἀπαγὲς καὶ ἀσύστατόν ἐστιν, ἐντείνεται δὲ καὶ συνάγεται τῷ ἀέρι σφιγγόμενον ὑπὸ ψυχρότητος etc. Since there can be no more tightening than that which obtains in the primal being, World-formation requires a comparative relaxation of the supreme tension, resulting in more solid and resistant beings. These are things more frangible, less spiritual. — The first change from (aethereal) fire to (fiery) air is thus described in Dio's logicomythus (= SVF II 622): μνησθεῖς (sc. the pure Godhead) δὲ Ἀφροδίτης καὶ γενέσεως ἐπράυνε καὶ ἀνῆκε αὐτόν, καὶ πολὺ τοῦ φωτός ἀποσβέσας εἰς ἀέρα πυρώδη τρέπεται πυρὸς ἡπίου etc. The descent in the ladder of elements consists in gradual “*mollifying and relaxation*” of the initial severe tension. The grosser the material substance the more resistant it is, which means, the less potent to permeate the foreign entity, act on it and assimilate it or impart an impression and character on it; thus naturally, the *less mastered and stretched* by divine spirit, the further away from God's own form of matter.

*Spirits are particular dispositions of the eternal, divine Spirit.* Such spirits constituting the being of the things in the World are distinguished into (ψυλαὶ) ἔξεις, φύσεις, ψυχαί, corresponding to the triple division of reality into inanimate entities, plants, animals (II 715; 716; 718; 1013). Νοῦς is added as a fourth item to account for beings endowed with reason, I 158: διὰ πάσης οὐσίας πεφοιτηκέναι τὸν θεὸν τιθεμένοις καὶ ποῦ μὲν εἶναι νοῦν, ποῦ δὲ ψυχὴν, ποῦ δὲ φύσιν, ποῦ δὲ ἔξιν. Cf. II 459; 460; 458. “Holdings” or “graspings” (ἔξεις) are spirits keeping together substances in concrete being, II 368: σώματα ἡνωμένα λέγεσθαι ὅσα ὑπὸ μιᾶς ἕως κρατεῖται, οἷον λίθος, ξύλον· ἔστι δὲ ἔξις πνεῦμα σώματος συνεκτικόν. The ἔξις is πνεῦμα ἀναστρέφον ἐφ' ἑαυτό (II 458, where notice the sequel: ἀρχεται μὲν γὰρ ἀπὸ τῶν μέσων ἐπὶ τὰ πέρατα τείνεσθαι, ψαῦσαν δὲ ἄκρας ἐπιφανείας ἀνακάμπει πάλιν, ἄχρις ἂν ἐπὶ τὸν αὐτὸν ἀφίκηται τόπον, ἀφ' οὗ τὸ πρῶτον ὠρμήθη. “Ἐξέως ὁ συνεχῆς οὗτος διάυλος ἄφθαρτος. Again the interaction of the two opposite tensional movements). For these “holdings” that hold together the substance of things v. II 540; 473 p. 155. 29; 1013 p. 302.19; 36; 716; 474; 391 p. 129.14. The ἔξεις, as spirits; are also described as “airs”; II 449: οὐδὲν ἄλλο τὰς ἔξεις πλὴν ἀέρας εἶναι φησιν (sc. Chrysippus)· ὑπὸ τούτων γὰρ συνέχεται τὰ σώματα· καὶ τοῦ ποιὸν ἕκαστον εἶναι τῶν ἔξει συνεχομένων ὁ συνέχων αἴτιος ἀήρ ἐστίν, ὃν σκληρότητα μὲν ἐν σιδήρῳ, πυκνότητα δ' ἐν λίθῳ, λευκότητα δ' ἐν ἀργύρῳ καλοῦσι. — Strictly

speaking, the spirits and qualities are *ἐκτά* (things that can and are being-had), not *ἔξεις* (havings), although they may be called *ἔξεις*, too, in the sense of “possessions” instead of “possessionings”. Thus II 391 p. 129.11-12; 390 p. 128.28. The point was that spirits were substances and bodies, while holdings and havings are *ἀσώματα*; II 461. Another example of Stoic *recherché* discriminations. Arcesilas’ joke in Athenaeus X 420d derides such affectatious niceties; turning to his pupil who failed to percolate the wine, observed that he, no better than himself, cannot perceive the (Stoic) good, adding: οὐ δὲ ἀπελθὼν τὰ ἐκτὰ τρύπα, i.e. perforate what the Stoics hold, contrary to common belief and notion, to be corporeal, their famous *ἐκτά*; i.e. an impossible thing. Cf. the proverb *κέγχρον τρυπᾶν*, boring the millet, said of a vain and useless occupation.

#### 4. EXCURSUS IV: PRINCIPLES, UR-ELEMENT AND ELEMENTS

That there is a single, unified entity out of which the entire World is developed; and that there are two principles of being, activity and passivity, inseparable, constitutive of all existence; these two facts are perfectly consistent. Such *dualistic monism* characterizes Stoicism, and is reflected in the Stoic distinction between *principle* (*ἀρχή*) and *element* (*στοιχεῖον*) of being. Thus very clearly it is stated by Aristocles (SVF I 98): *Στοιχεῖον εἶναι φασὶ τῶν ὄντων τὸ πῦρ, καθάπερ Ἡράκλειτος, τούτου δ’ ἀρχὰς ὕλην καὶ θεόν, ὡς Πλάτων. ἀλλ’ οὗτος (sc. Zeno) ἄμφω σώματά φησιν εἶναι, καὶ τὸ ποιοῦν καὶ τὸ πάσχον, ἐκείνου (sc. Plato) τὸ πρῶτον ποιοῦν αἴτιον ἀσώματων εἶναι λέγοντος. ἔπειτα δὲ καὶ κατὰ τινὰς εἰμαρμένους χρόνους ἐκπυροῦσθαι τὸν σύμπαντα κόσμον, εἴτ’ αὐθις πάλιν διακοσμεῖσθαι. τὸ μέντοι πρῶτον πῦρ εἶναι καθάπερ τι σπέρμα, τῶν ἀπάντων ἔχον τοὺς λόγους καὶ τὰς αἰτίας τῶν γεγονότων καὶ τῶν γιγνόμενων καὶ τῶν ἐσομένων etc.* — Galen employs the distinction in an aristotelianizing, syncretistic manner (*drawing probably on Poseidonius*). Fire is an element, but its substrate and quality (matter and heat) are principles (cf. II 320 p. 115.20; Plotinus: καὶ πῶς ἔχουσιν αὐτὴν — sc. τὴν ὕλην — καὶ τὰ στοιχεῖα εἶναι); fire is more or less homogeneous with the things whose element it is, while matter and heat are categorially different from that whose principles they are (SVF II 408): ἐν τούτῳ γὰρ καὶ διήνεγκε στοιχεῖον ἀρχῆς, ἐν τῷ τὰς μὲν ἀρχὰς οὐκ ἐξ ἀνάγκης ὁμογενεῖς εἶναι τοῖς πράγμασιν, ὧν ὑπάρχουσιν ἀρχαί, τὰ δὲ στοιχεῖα πάντως ὁμογενῆ. Or, in other words, the element is that into which something is really divisible, as an ultimate physically identifiable part of it, whereas principles are distinguished even within an actually indivisible entity, *really indeed, but merely in thought*, without any implication of genuine separability (II 409): ἀλλὰ [δὲ] δύο πράγματα ἐστὶ φανερώς ἀλλήλων διαφέροντα, τὸ μὲν ἕτερον ἐλάχιστον μόριον τοῦ ὅλου, τὸ δὲ ἕτερον εἰς ὃ διέλη τις κατ’ ἐπίνοιαν αὐτὸ τοῦτο <τὸ> ἐλάχιστον etc. Principles, contrary to elements, cannot exist *in themselves* but only in combination. — The Chrysippean doctrine of the elements is clearly set out by Areius Didymus fr. 21 (*Dox. Gr.* pp. 458-9 = SVF II 413). It coheres with Aristocles’ account, *supra*. There are the four elements ἐξ ὧν συνίστασθαι πάντα ... καὶ εἰς ταῦτα διαλύεσθαι, II 413 p. 136.8. But fire is the element *par excellence* (p. 136.11) κατ’ ἐξοχὴν στοιχεῖον λέγεσθαι διὰ τὸ ἐξ αὐτοῦ πρώτου τὰ λοιπὰ συνίστασθαι κατὰ μεταβολὴν καὶ εἰς αὐτὸ ἔσχατον πάντα χεόμενα διαλύεσθαι, τοῦτο δὲ μὴ ἐπιδέχεσθαι τὴν εἰς ἄλλο χύσιν ἢ ἀνάλυσιν, fire being the *primal existence* constituted by the two inseparable *principles*, i.e. material substrate and divine spirit. From the primal fiery being, there are formed the four cosmic elements and then the entire διακόσμησις, according to Stoic cosmogony; cf. e.g. II 327 quoted *infra*. Chrysippus distinguished three senses of “element”, the basic one, the one according to which elements are the four empedoclean *ριζώματα*, and, thirdly, that of the things out of which others are made in each particular case. (I read in p. 136.33 e.g.: κατὰ τρίτον <δὲ> (with Meineke) λόγον λέγεται στοιχεῖον <πᾶν τὸ ἐξ οὗ ἕτερόν τι συνίσταται. Κυρίως δὲ στοιχεῖον εἶναι> etc.). As common factor appears the notion of real divisibility and actual division in the nature of things. But the basic meaning is given thus (p. 136.34): <Κυρίως δὲ στοιχεῖον> εἶναι ὃ πρῶτον συνέστηκεν οὕτως, ὥστε γένεσιν διδόναι ἅφ’ αὐτοῦ ὁδῶ μέχρι τέλους, καὶ ἐξ ἐκείνου τὴν ἀνάλυσιν δέχεσθαι εἰς ἑαυτὸ τῇ ὁμοίᾳ ὁδῶ (The “similar way” of constitution and resolution, of creation and destruction, points naturally to the heracleitean dictum ὁδὸς ἄνω καὶ κάτω μία καὶ ὡστὴ). “Ὁ πρῶτον συνέστηκεν refers to the constitution of the Ur-Element, of the primal being, out of matter and spirit, of πάσχον and ποιοῦν, of substance and divinity; and the following description expresses the spermatik origin and

development of the World. Cf. II 327 p. 116.36: τὸ αἰθέριον δὴ ἐκεῖνο πῦρ, ὃ φ' οὐ φασὶ τὰ τε στοιχεῖα καὶ τὸν Κόσμον γεγονέναι. V. e.g. I 102. — For a simpler formulation of the general notion v. II 580 p. 180.5: ἔστι δὲ στοιχεῖον ἐξ οὗ πρώτου γίνεται τὰ γινόμενα καὶ εἰς ὃ ἔσχατον ἀναλύεται. — The exposition of Stoic Physics (according to Diocles Magnes) in Diogenes Laertius begins with a brief statement of the theory of principles, which is followed by the distinction between ἀρχή and στοιχεῖον (VII, 134 = SVF II 299): διαφέρειν δὲ φασιν ἀρχὰς καὶ στοιχεῖα· τὰς μὲν γὰρ εἶναι ἀγενήτους <καὶ> ἀφθάρτους, τὰ δὲ στοιχεῖα· κατὰ τὴν ἐκπύρωσιν φθείρεσθαι· ἀλλὰ καὶ σώματα (so must be evidently read) εἶναι τὰς ἀρχὰς καὶ ἀμόρφους, τὰ δὲ μεμορφῶσθαι. Reference to the primal being is here implicitly included because of its consubstantiality with the aetherial fire of the actual διακόσμησις. (In any case, the aboriginal fiery being is extinguished temporarily after the universal conflagration as God turns the entire substance into liquid semen). The principles are without form, as every quality is a particular disposition of being; quality appears with full, composite being, therefore first with the elements (cf. II 327 p. 116.34), and in particular with the element κατ' ἐξοχήν, i.e. fire, the *divine body*. God and Spirit, strictly speaking, is the active *Principle*. But God and Spirit has a material body, and this is aethereal fire. (This body is the entire substance at conflagration, while it is restricted to the celestial part of it in the state of διακόσμησις. The body meant here is God's proper body; for God as divine Spirit pervades everything at all times). As the active principle always permeates the available material substance, "God" and "Spirit" may also be called the necessary conjugation of the two principles, the primal complete being or the heavenly aether depending on the existing state of being. Thus God is Fire or fiery Artificer or intellectual Fire. SVF II 1045: 'Ο δὲ Ζεὺς ἡμῖν (sc. τοῖς ἀπὸ Στοᾶς) οὗτος οὐ τῇ μὲν αὐτοῦ φύσει χρώμενος ἐν ἔστι μέγα πῦρ καὶ συνεχές etc. 1050 πῦρ νοερὸν ὁ Θεός ἀίδιον. The divine spirit is fiery (443). II 323a p. 116.13: θεῖον πῦρ. 423: ignem deum esse. I 157: Ζήνων ὁ Στωϊκὸς νοῦν κόσμου πύρινον (sc. θεὸν ἀπεφήνατο). II 618: τὸ ἀναστοιχειῶσαν τὴν διακόσμησιν (i.e. the former cosmic Whole) εἰς αὐτὸ πῦρ. Cf. I 107; 512. The spiritual tension is a stroke or blow of fire (I 563, quotation from Cleanthes: πληγὴ πυρὸς ὁ τόνος ἐστὶ). II 1027 very succinctly: Οἱ Στωϊκοὶ νοερὸν θεὸν ἀποφαίνονται, πῦρ τεχνικόν, ὃδ' βαδίζον ἐπὶ γένεσιν Κόσμου, ἐμπεριεληφὸς πάντας τοὺς σπερματικούς λόγους, καθ' οὓς ἕκαστα καθ' εἰμαρμένην γίνεται· καὶ πνεῦμα μὲν διῆκον δι' ὅλου τοῦ Κόσμου, τὰς δὲ προσηγορίας μεταλαμβάνον κατὰ τὰς τῆς ὕλης, δι' ἧς κεχώρηκε, παραλλάξεις. Cf. 1026; 423. The divine essence is spiritual and fiery, an *aetherial fire* (Cf. e.g. II 596 p. 184.4). I 127: θερμασίαν δὲ καὶ πνεῦμα Ζήνων τὸ αὐτὸ εἶναι φησιν. Aetherial Fire or living fiery Blow incorporating the Law of its development and the Reason (Λόγος) of all existence: Πῦρ ἀεῖζον ἀπτόμενον μέτρα καὶ σβεννύμενον μέτρα.

A. L. PIERRIS  
PATRAS

# ERRATA

p. 150 l. 33 read: principles  
p. 154 l. 17 read: in in place of: it<sup>1</sup>  
p. 156 l. 11 read: being  
p. 159 l. 40 read: δίαμα  
p. 160 l. 6 read: what in place of: which  
p. 163 l. 10 read: constituted  
          l. 34 read: subtlest  
          l. 36 read: III  
p. 164 l. 42 read: evidently  
p. 168 l. 40 read: atoms and  
p. 170 l. 37 read: an in place of: any  
p. 174 l. 36 read: thus, naturally,