A.L. PIERRIS THE ORIGIN OF STOIC FATALISM

Stoic Fatalism is not astral but metaphysical. Its metaphysics is a kind of, so to speak, biological physics; it is based on the assumption of a certain definite organicity of reality; it is governed by a world-view of archaic tenour, of hylozoistic dynamism. The cosmic origin is spermatic. At the beginning there is the primal divine being, total synthesis of absolute passivity with absolute activity, material substance thoroughly permeated by spirit, matter at its purest condition, most pliable stuff for pneumatic in-formation, the proper substrate of divinity in indissoluble conjugation with spirituality, the unified undifferentiated World-God - eternal, living, fiery blow and aethereal fire (π ūp'aciζωον, π νευματῶδες or πύρινον π νεῦμα). Out of this initial divine substance is evolved, according to measures and times of an inherent lawfulness, in orderly and coherent succession (oδῷ καὶ συμφώνως) the entire cosmic phantasmagoria, the διακόσμησις and to the same aboriginal quintessence is all existence again resolved at the close of time when the ultimate finality of the development has been reached, and being returns to where it sprang forth from.

The pattern is clearly physico-biological (hylozoistic). The key conception is that of the spermatic unfolding. The model for cosmic creation is organic development, not artificial construction in presumably Platonic fashion. And, of course, the formation of the World is a concrete incidence in time, not an abstract, teleological structuring of it from eternity in the Aristotelian manner.

The idea of Spermatic creation was articulated in early Pythagoreanism and it represented a development of the primeval cosmic genealogies of Gods, which conceived of the chain generation of objective reality as sexual coition in successive sacred marriages. The experience of living Nature, which underlied the aboriginal religious projections, gave itself birth, in high archaism, to elaborate cosmogonical speculations of two basic connected types: Orphic egg-symbolism and Pythagorean semen-construal. The difference in their approach resides primarily (apart from the more or less intensive mythical colouration in the respective logicomythical thinking) in the distinct conception of the First Principles of Reality: Orphism remained faithful to an aboriginal Monism of Darkness, while Pythagoreanism opted for metaphysical Dualism. Thus in the latter account, semen is somehow secreted and deposited from the male Principle of Finitude into the cosmic Womb of infinite femineity; this semen attracts, then, absorbs and assimilates the parameters of Infinity (void, time, spiritual movement) and so, by this process of order-imposition, the Universe growes as a harmonious whole. On the other hand, in the Orphic model, the Cosmic-Egg World-beginning preserves first the derivation of reality from a single principle of female darkness, through parthenogenesis, and, secondly, evolves the Universal Order from within the initial formation, without requirement of an external in-fluence. For tis is the power and significance of the Egg-symbolism in cosmic creation: while the semen deposited in the womb, or the seed in the Earth (the archetypal Female), needs accretion of external nutrition in order to develop, the Egg includes in a self-contained, closed whole both the formative principle and the material substance necessary for the constitution of the new being. Thus oviparous generation is more apt than a viviparous one to express the prerequisites of world-formation in a speculative setting predominated by the experience of internal development. In latter Orphism (of the type of the cosmogonies according to Hieronymus, Hellanicus and Apion) the ovoviviparous issue of the World is adopted, in an endeavour to combine the two alternatives, as prefigured by earlier Pythagoreanism.

In Stoicism, the cosmogonical process is absolutely internal, for the simple reason that there exists nothing, no being strictly speaking, outside the primal being. What lies beyond is incorporeal infinity, which is no-being, with no power to act or undergo anything, no capability to enter into any real relation to cosmic semen. This spermatic principle then is like an orphic Egg: it includes both living force and matter in inseparable synthesis. Thus, so far, we meet the combination of the Egg-experience of early Orphism with the seed-assumption of early Pythagoreanism - an association operative in latter Orphism as well, influenced in all probability precisely by Stoicism.

As long as the Principle of Infinity retains its archaic character of plenipotential dynamism in explosive fertility, then, whether it is given as inside the semen (its matter and substrate) in an egg-like manner, or as lying outside it but drawn in and informed by the spermatic formative principle (as its nutritive element), the cosmogonical sequence and cosmological structure and function cannot be totally determined necessarily: for the inherent inderterminacy of the Second Principle of productive Limitlessness is inconsistent with absolute necessity in the resulting outcome. But when the second and female Principle works unhindered in constituting the offspring, and therefore leaves no option to the ambivalent and umpredictable function of overproductivity: the processes caused by the unimpeded exercise of the determinative power are necessary. For to say that this power may also act contingently is tantamount to introduce once again within the determinative principle the dynamic indeterminacy of fertility which has been excluded from its proper vehicle, from the second Principle of a dualistic (or a quasi - dualistic) system.

Internal spermatic developments without indeterminate principle of Infinity, must then be necessary. For only dynamic indeterminacy as power of fertility can uphold contingency in the evolution; negative indeterminacy as mere passivity implies only absolute recepticity of whatever the formative principle imposes, and this is the necessary unfolding of the latter's own spermatic determination. Thus one conceptual ground for Stoic Necessitarianism is traced to the growing Patriarchalism in the mentality of the Classical Era. (The enhancement in the role of the male principle of Order together with the corresponding degradation, ontological and axiological, of the fertile power of Infinity). This tendency reached its logical conclusion in Stoicism: the second principle is the totally yielding matter of cosmic formation and, therefore, cannot function even as an obstructing adversity in the World-processes; everything is due to the working of the unopposable might of the divine, active Pneuma. Cosmos has no excuse not to be optimally perfect. The classical Theodicy of an Evil or even Defective Principle to account for cosmic flaws has failed.

The utter consistency in the extreme consequences of a classical intellectual stance led to the support of a pre-classical experience. The philosophical battle was often fought on the plain of an adequate conceptual understanding of the basic polarity in reality. But underneath controversies on Dualism there was flowing the great steam of Monism. The Pythagorean experiment had to be reinterpreted, opposing principles be reintegrated into a unified setting, and Dualism be sublated to a higher order Monism. After all, Greek Dualism was at its inception conjugal, not adversative, unlike the Iranian - Zoroastrian: it represented the analysis in the required blending of a harmonious reality. Stoicism decisively returned to this standpoint: duality

pertains to principles, not to existence. And the principles of being are so conceived as to render insoluble their union in existence.

In a monistic system all development is internal. The nature of the evolution depends on the nature of the initial situation: nothing can supervene from the outside. The Monism of the archaic experience was one of Darkness. At the beginning of things stands awsome Night, the terrible cosmic Womb of all existence, in its plenitude of productive power, the dynamic Matrix of reality. Out of this aboriginal Darkness comes the light of the World, the principle of Order and stable formations, of harmonious structure. For something to exist, it must consist in a commensurate proportionality of parts, in a harmonious blending of elements - parts, elements and constituents born from the chaotic productivity of the single Principle. Durable existential identity presupposes harmony; abiding structure means orderly structure; the cosmic law is the law of luminous symmetry. The essence of Lawfulness is harmony imposed upon the outbursts of turnultuous fertility. Law and Order is borne out of Chaos. And thus Necessity reigns in the World. As Philolaus put it: πάντα ανάγκη και άρμονια γίγνεσθαι.

Orphism capitalized on this experience. It erected a cosmogony of the single, dark beginning. To generate the first-born ($\Pi \rho \omega \tau \dot{o} \gamma o v o \varsigma$), the light of harmony and order ($\Phi \dot{\alpha} v \eta \varsigma$), Orphic speculation utilized the model of the World-Egg. Mother Night conceives the cosmig Egg out of which the formative principle of brilliance emerges. Necessity is inherent in the dark Womb: the aboriginal Chaos out of inner necessity forms the Egg which brings forth the First-Born, setting thus in motion the processes that develop necessarily the World in its full "Ornament" ($\Delta \iota \alpha \kappa \dot{o} \sigma \mu \eta \sigma \iota \varsigma$). The Orpheus of the Orphic Argonautica begins his hymn by invoking ' $\alpha \rho \chi \alpha \iota \sigma \mu \omega \gamma \alpha \rho \tau \sigma \prime A \nu \alpha \gamma \kappa \eta$ and ' $A \delta \rho \dot{\alpha} \sigma \tau \epsilon \iota \alpha$ an indispensable primitive feature of Orphism, and not a hellenistic development. In the rhapsodic, orphic Theogony Ineluctability ($A \delta \rho \dot{\alpha} \sigma \tau \epsilon \iota \alpha$) is associated with Night, the first Principle in Archaic Orphism. In the orphic Cosmogony according to Hieronymus and Hellanicus inescapable Necessity coexists with ageless Time, the first Principle of hellenistic Orphism. Both theses stem from the initial position where Necessity is rooted in the primal dark beginnings. Ìī[éñá is above Zeus in the Orphic Poem of the Derveni Papyrus, just as it is in the Aeschylean Prometheus.

There is strong presence of Necessity in Pre-Socratic Philosphy. It stems ultimately from the religious determinism of the natural man who intensely feels the sacral bonds of nature - a religious determinism abundantly evident in poetry of all three kinds and manifest in multifarious rites and observances. But it reflects proximately, and further develops conceptually on the intellectual plan, the logicomythical speculations that were symbolically articulated in early Orphism. Classicism felt uneasy on such emphasis on Necessity as cosmic and divine lawfulness. Plato's ambivalent handling and the Aristotelian dichotomy between necessity and teleology amply endence that imcomford. The necessary came more and more to be viewed in isolation as an untoward constraint, as what does violence to the nature in question, as mechanical, external coercion. Stoicism, in this respect, too, reverted to archaic modalities. The basic framework of this reversion in the matter at hand had been delineated above. It can be significantly enriched through comparison with every major presocratic philosophical system. But here I shall concentrate in tracing to that source the peculiar characteristic of the Stoic position: not merely the determinism of divine and cosmic lawfulness - but the absolute determinism in cosmic processes.

The complete organic unity of the World requires the absolute sway of Necessity in it. A single change, however small, would implicate in the spatial and temporal universal whole enormous difference. A momentous rearrangement of the entire cosmic nexus would have to be effected if

only a little detail should be otherwise than it really is. The chain of being stands or falls as a whole: the slightest disruption breaks it down. All reality is articulated in a concatenation of causes and effects which does not admit of any contingency. For such a contingency, by reason of the absolute cohesion of being, would require corresponding contingencies accross the entire spatial and temporal field; and whence could such an alternative total reality sprang? First, there is no external factor of variation. Existence is not an open system, with outside parameters.

Secondly, there is also no internal factor of possible variation. For not only is being a closed system, but it is also spermatic in its structure and development. It consists in the unfolding in space and time of preexisting determinations, like the evolution of a seed. Different seeds of the same, say, plant species do exhibit individual differences in growth, but this is due on the one hand to their own characteristic differences as individual seeds (for there cannot exist two indistinguishable entities), and on the other to the difference of the concrete external circumstances in which they develop. With one seed and no external reality at all, there is no cause for any possible variation in the form of the plant issuing out of the given seed.

The importance of the cosmogonical Egg-model becomes evident. In the egg, formative principle and matter and food represent a closed system with no interaction to anything else during hatching. The egg is like a seed which contains in itself what is necessary for its development at least as a foetus (animal embryon in womb or plant embryon in earth); it is like a seed which has interiorised that part of its environment requisite to its growth. Such seed is precisely the Stoic Spirit in pure Matter. The Stoic primal being comprises everything that exists, the two principles in indissoluble union. There is nothing that can be added to being from outside, or subtracted from being, in the entire course of the cosmic development. Not only is the universal Egg self-contained, but also the animal hatched is a closed system that continues the identity of the Egg. And this was precisely the orphic idea: the cosmic Ovum is the totality of the unified World before and after the manifestation of the Protogonos-Phanes. The underlying experience can also be explained in terms of the plant-seed which involves all matter and vital force necessary for its foetal development in the terrestrial Womb as well as for its evolution above ground: the cosmic seed is without environment.

Cosmic Egg and universal semen; a self-contained system in spermatic global development; the twin experience of closedness and seediness of being entails the characteristic tenets of Stoic basic physical theory, especially in the context of the analysis of existence into the dual principium of pneumatic living force and passive material substance. The World is a unified whole whose parts stand in complete Sympathy; the nexus of reality is continuously woven; the chain of being is uninterrupted; each stage is involved and pre-figured in the initial condition; all existence is pre-determined.

The absolute determination of World-History results from the idea of a closed, spermatic cosmic development. It is a thoroughly metaphysical position with deep religious foundation. But it has nothing essential to do directly with Astralism.

The World is a closed system, with a beginning and spermatic evolution. This is the archaic experience that penetrated deep into classical consciousness as well. The quest for the principle of things was considered to be tantamount with the quest for their temporal commencement. '_Áñ÷]ç covered both metaphysical and physical beginning. To explain existence is to understand how it started. Being presupposes in this archaic milieu becoming. The ontological precedence of being over becoming was a Parmenidean unintegrated insight which bore systematic fruit only with Plato. It was such an awkward viewpoint that led to the

bifurcation of reality into two strata. Aristotle felt that he was truly the first to conceive of a real natural eternity, where principles were not initiations.

A closed system with a beginning and spermatic evolution implies an end as well. The biological model of reality and World-history, taken seriously, entails organic movement from conception to dissolution, from birth to death. Creation as construction through demiurgic act may be, perhaps, so devised as to result in an unending effect. But Creation as conception and nativity implies termination at the other end. Living has a starting and a final point.

Life ends archetypally whence it comes from. The life span is defined by two similar extremities. Destruction is the mirror image of Generation. The undoing of a thing is the reversal of its doing. Becoming and passing away are the obverse and converse sides of the same situation: $\delta\delta\delta\varsigma'$ άνω καὶ κἀτω εωυτή. The exhibition of a reaped ear of corn revealed to the initiates the Eleusinian Mystery: it was the proclamation of Death as beginning of Life.

The archetype is not, of course, realised exactly in each living being. For example trees bear fruits and thus produce the seeds of repetition for the species every year, and not at the end of their life. But this is due to the superimposition on the life cycle of the living entity in question of the seasonal periodicity. In man also, as in other animals, there is a corresponding period of human generation which Plato specifies enigmatically in Politeia (αριθμὸς ἀνθρωπείου γεννητοῦ). Besides, the resolution of life at death is to its elements, out of which is sprang initially. But due to external circumstances, the process does not lead to precisely the same composition and proportion of constituents, existing in the same conditions, as those that obtained at the beginning of the synthesis. Thus passing away is not followed by a new becoming of the same entity. Toùς ἀνθρώπους φησὶν Ἀλκαίων διὰ τοῦτο ἀπόλλυσθαι, ὅτι ὀu δύνανται τὴν ἀρχὴν τῷ τέλει προσἁψαι.

In a closed, organic system the final state coincides exactly with the starting one. As in a cycle, the end point in moving away from a point on the circumference is the same with the starting position. Ξυνὸν γὰρ ἀρχὴ καὶ πἑρας Ἐπὶ κὐκλου περιφερείας κατὰ τὸν Ἡρἀκλειτον. The movement repeats therefore itself necessarily: for what made the initial state to develop in a certain way will operate again and in the same way once the same state obtains anew. Thus periodicity is engendered. A closed system developing spermatically is periodic. It is, consequently, also everlasting, as unceasingly repeating itself. Periodic eternity is ensured for it from within.

The enternity through unending cyclic recurrence fits well with fundamental archaic life-experiences. Just as being rests on becoming, so perennial existence requires perpetual revival. The death implicit in life is cancelled again and again through repeated renovation. Life unending without periodical regeneration is a chimerical impossibility. The power of renaissance is the secret of life eternal. One cannot even express primitively immortality unless as unceasing generation: eternal being is continual becoming. Gods are 'αειγενέται, 'αειγενείς, 'αειγνῆται.

The eternally recurring cosmic cycles are exactly the same in all respects, down to the tiniest detail. What reason could account for the slightest variation in the causal concatenation, in the nexus of existence? The plan of World-History will be unfolded in infinite, identical repetitions, since everything is spermatically pre-figured in the initial primal divine Being, the all-comprising Zeus, whose orderly transformation creates and then reabsorbs all cosmic "ornamentation" ($\delta\iota\alpha\kappa\dot{o}\mu\eta\sigma\iota\varsigma$) according to the "measures" of an inherent lawfulness. The successive cosmic periods are exactly similar. The periodicity of a closed system developing spermatically is deterministic. Necessity reigns supreme, which is simultaneously the Reason, the Providence,

the Fate and the Destiny of the World. Λόγος γάρ ἐστιν ἀυκ ἐμός, σοφῶν δἔπος, δεινῆς ἀΛνάγκης ἀυδὲν ἰσχύειν πλέον. This Necessity effects that no trifling event or minor feature in World-History are exempt from predetermination. The one and only possible and necessary cosmic cycle repeats actually itself in invariable identity.

Here is full-blown the idea of the Eternal Return for every single entity on the Cosmic Stage.

The question as to the origin of Stoic metaphysical Fatalism is now virtually reduced to tracing the source of the doctrine of spermatically unfolding identical recurring cosmic cycles, and concretely to identifying the emergence of the idea of Eternal Return. The foundation of this doctrine lies in the secure bed of mainstream archaic World-experience; on the hard rock of the closedness of reality conceived hylozoistically. The supremacy of Necessity further, focused on Orphic soil but radiating to all presocratic philosophy, is also common stock. Euripides in his Hymn to Avάγκη in Alcestis associates apparently the dogma with Orphism.

But more specific connections are needed, chiefly regarding the periodicity of existence. In Alcmaion is testified the notion of a cyclic development; inability to join and attach the end to his beginning is the reason for the individual man's death as cessation of continued self-identity. Alexis utilized the idea in a mock-solemn reverse setting where, significantly, there is mention of $\theta \epsilon \sigma \mu \delta \varsigma' a v \dot{a} \gamma \kappa \eta \varsigma$. The thesis of the Eternal Return is ascribed to Pythagoreans already by Eudemus: not merely the doctrine of some personal identity through reincarnation, but the precise view of identical repetition of individuals in the same situations, which must imply the theory of one recurring World-period. But this does not square with to primitive Pythagoreanism, where there is birth but not death of the World.

In earey Pythagoreanism there is spermatic origination of the World, but no cosmic periodicity. When and how does the latter enters the Greek philosophical picture? In Anaximander we find the theory of an infinite pool of existence out of which an infinite number of Worlds emerge, and by which they are in due course again reabsorbed. This infinity of Worlds is synchronous, but also successive. There is a continuous outpouring and swallowing back of segregate being out of the Infinite, inexhaustible reservoir. To decide on the similarity or otherwise of these Worlds to each other, the law of their emanation and the law of their function must be discovered, the cosmogonical and cosmological lawfulnesses. The processes at the initial formation and the continual working of a World (secretion of basic contrarieties from the Infinite, consolidation of fundamental elements, interaction, location, mixture of them in more or less stable structures, and final dissolution) obey one and the same Law, the Law of Retribution. Becoming means transformation of one thing into another. The new entity, by affirming its identity in substance, power and activity, commits injustice on the old one, out of which it proceeds and is formed, an injustice which is repayed in full when the new is dissolved, in due course and according to the measures of time, into the initial state from which it sprang. The Law of reality is the Justice of Retaliation. Time secures the working of the supreme talionic lawfulness with ineluctable precision: Time is the mode of upholding absolute Justice in cosmic affairs according to the Principle of Talion. Such is the full significance of the pregnant words: $\dot{\epsilon}\xi \tilde{\omega} \delta \delta \eta' \gamma \dot{\epsilon} \nu \epsilon \sigma \tau$ τοῖς σῦσι, καὶ τὴν φθορὰν ἐις ταῦτα γίνεσθαι κατὰ τὸ χρεών. Διδόναι γὰρ ἀυτὰ δίκην καὶ τίσιν αλλήλοις τῆς αδικίας κατὰ τὴν τοῦ χρόνου τάξιν. Necessity, Justice, Retribution and Order in Time go together in the natural Becoming of Being, in the World-processes. Periodicity (ανακύκλωσις) and a single, strict Law of Change valid equally in the Universal Realm and in each self-contained World-whole; the closedness, that is, and cyclicity of natural existence are

already at work. Did it follow for Anaximander the indistinguishability of the recurring cosmic periods?

We may not assume as much, despite the undoubtful pressure in this direction. The very Indeterminacy of the Infinite Principle, and its Infinite Movement, must require a certain initial indefiniteness as to the actual circumstances of the secretions which start the cosmogonical processes in each case of World-creation. The Infinite Movement of the Infinite Principle should be construed as dynamic Indeterminacy, teeming with fertility and exploding in outbursts of overproductivity. This beginning in powerful indeterminacy implies possibility of variation at the starting condition, which may also be transmitted as a constant parameter at the evolution of each World-history. In any case it seems that the necessity of identical patterns in the distinct cosmic developments is abrogated.

On the other hand spermatic World-evolution with no multiplicity of synchronous cosmic wholes but with successive periods of Universal creation and Universal destruction, each ending at exactly the state where it started and incorporating the entirety of the cosmic principle with no remainder - such combination of conditions entails the complete determinism of the cosmological processes. Anaximander, already utilized the spermatic conception: at the cosmogonical starting point there is secretion ($\alpha\pi\dot{\alpha}\kappa\rho\iota\sigma\iota\varsigma$, $\dot{\epsilon}\kappa\kappa\rho\iota\sigma\iota\varsigma$) of the power fertile of basic contrarieties ($\tau\dot{\circ}$ $\gamma\dot{\circ}\nu\iota\mu\circ\nu$ $\theta\epsilon\rho\mu\circ\dot{\iota}$ $\tau\epsilon$ $\kappa\alpha\dot{\iota}$ $\psi\nu\chi\rhoo\tilde{\nu}$). But the model is not yet thoroughly biological, nor is it accompanied by the other significant factors.

The conception is not still decisively spermatic, although it has become explicitly organic in Heracleitus; but the remaining conditions are satisfied. The World is a single Whole, a closed hylozoic system whre the primal substance involves the law of its transformation. There exists in reality fire everliving, whose measured kindling and extinction constitutes the World. The order of these measures follows the Law of Opposites: contraries are two aspects of the same thing, like the two contrary directions of the same distance. Contrariety is the dynamism of being: existence is built up through a tension which necessarily causes its countertension, as in flexing the string of a bow or lyre which establishes and heightens the power of reaction to the opposite direction. The tension is an injustice committed on the obtaining state of affairs which is repayed by its exact equivalent of countertension in retribution. The World moves κατὰ δίκην και έριν καὶ χρεών according to Anaximander's Law: the necessity of talionic Justice is entrusted to the retribution of Erinnys. And this is the Reason of Reality. We move in the framework of lonic developments.

Πῦρ ἀεἰζωον ἀπτόμενον μέτρα καὶ σβεννύμενον μέτρα. But does there exist a universal Kindling and Extinction, a Cosmic Period beginning and ending with total conflagration, in a complete Immolation of all existence? Is the exchange of all things with fire merely a structural cosmological fact, or does it also express the primeval cosmogonical datum of World-formation from the Fire-Logos principle? Antiquity remarkably and consistently sustained the second alternative, which cannot be ascribed to Stoicising συνοικειώσεις: it was already Aristotle's and Theophrastus' interpretation of the dark Ephesian. Heracleitus, besides, did indeed elaborate a doctrine of cosmic periodicity defined by the Great Year. The duration of the Heracleitean ÌÝãáò ?íéáõôüò is 10.800 years = 30x360. 360 days make up the ordinary year of 12 months with 30 days each. 30 years is the term of a generation. The Great Year measures thus the interval comprising the number of days of a normal year, with days taken as long as a human generation. The generation for Heracleitus, was significantly periodical in nature: its span was equal to the (minimal) time needed for a born human being to be reborn as his grandchild (the birth of his son does not repeat his own birth, because now he acts as father). In common

acceptation, human generation covered the normal time - interval between successive births in the same lines of descent. Heracleitus called yevea, orbis aetatis, the age cycle. The periodicity of human generation had to do precisely with begetting; just as the periodicity of the seasonal year related to plant and animal procreation in general. The Great Year must determine the cosmic period between World-generation and regeneration. There is no Aristotelian eternity of the World in Heracleitus, which would necessitate a periodicity partial only in its effects, as the one postulated precisely by Aristotle. This latter Cosmic Period, firstly, is defined astronomically: the re-occupation by the planets and the luminaries of the same position on the celestial sphere, or rather their re-alignment along the same line in a certain initial direction. And, secondly, it oscillates between (partial) Conflagration and Inundation, between Great Summer and Great Winter. In both respects it differs essentially from the Stoic Period and its Heracleitean antecedent. The astronomical determination of the biggest cosmic periodicity leaves at least the heavenly structures intact at each round of World-renovation: which is alien to the archaic experience of a basic consubstantiality between atmospheric and celestial phenomena. Astralism, with sharp separation of the heavenly guintessence from the sublunary realm, is a classical predilection. In Aristotle, consistently, the Great Year cannot wholy destroy at its turning points even the terrestrial World of Change: the concomitant devastations affect part only of this World, and indeed different ones at each repetition of the cycle.

With no classical eternity of the World-fabric and no astral emphasis in it, the Cosmic Period extends from cosmic Nativity to next universal Renaisance. The Great Year is a metaphysical prerequisite, and not an astronomical inference. Chaldaean Science will have contributed to the development of Greek Astralism and its application to the search of major periodicities subsuming effectively minor ones under their umbrella. But, remarkably, what Aristotle calls in this sense maximal year (and not Great Year simpliciter) is very short (the interval between reported local inundations like Deucalion's) compared with the enormities of Babylonian computations, as the ones deducible from Berossus. Even the oriental mythological inclination to Cataclysms ill accords with a doctrine of Rational Fire.

Heracleitianism, we saw, is a suitable birth and nurse place for the Stoic Theory. A closed system going through successive, repeated periods of development from the same principle and according to the same law, stuff and force coinciding in the same reality. Are the cycles absolutely identical? Does absolute determinism rule down to the smallest detail?

There is only one thing missing from the complete Stoic picture: and this is the spermatic nature of Cosmic History. This, in its turn, is found on Pythagorean bed; but in this current periodicity and fire-monism are wanting. The puzzle requires a Heracleitean Pythagoreanism. And thus emerges a meaningful image: Hippasus. The original heretic who fashioned the later Pythagorean orthodoxy of the mathematical sect has evolved a fire Physics with cyclic cosmic restitutions. The original seed doctrine of the School supplied the crucial framework, while mathematico-astronomical calculations and speculations might have supplied supporting pointers.

Whether this concrete suggestion is correct or no, Stoic Fatalism, as a metaphysical doctrine, is firmly embedded in the archaic Greek tradition. Orphism, Pythagoreanism, Heracleiteanism provide the natural context in which to understand the, only apparently, awkward conception. Its equally only apparent moral discordance can also be harmonized similarly: Stoic determinism breaths the invigorating necessity of truth and knowledge. Fate is Zeus' phronesis as the commentator in the Derveni Papyrus explained before Stoicism.

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