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"The Interpretation of Plato's 'Timaeus'."

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PREFACE.

It is a healthy feature of the best modern Platonic exegesis that it seeks to obtain a really historical and objective understanding of Plato's thought by reference to the early tradition, so far as this can be recovered from the critique of Aristotle and from the explanatory commentaries of antiquity. The object of this thesis is to try, following the same plan, to supplement the original text of what is perhaps Plato's most difficult dialogue, the "Timaeus", by means of an examination in particular of Proclus' Commentary and of the "de Animae Procreatione in Platonis Timaeo" and the "Quaestiones Platonicae" of Plutarch. The true value of the Commentary of Proclus has been in the past obscured by his unfortunate idea that the "Timaeus" is to be read and interpreted in the light of the "Chaldaic Oracles" and the "Orphic Poems", by which the Neo-Platonists attempted to secure divine authority for their teaching. Apart from mystical extravagances, however, Proclus' Commentary and his own exposition contain much that is both suggestive and instructive, and, though I do not profess to offer a new interpretation of the "Timaeus", I hope to be able to bring out something of the real worth of Proclus' more or less neglected work.

The plan I propose to follow is to select
for separate comment and discussion the most important
general topics and problems arising out of the "Timaeus" and
determining its interpretation. For this purpose
I thought it best to reserve a special chapter for a
fairly detailed outline of the general argument of the
discourse of Timaeus, and to add bracketed notes in
confirmation and elucidation.

The text followed in Proclus is that of
Diehl, and references are to the three books of his
edition, and not to the five books of the actual
Commentary. In Plutarch, I have used the Taubner
Edition of the "Moralia" by C.M. Bernardakis. I was
permitted by Professor Taylor to read some of the
proofs of his Commentary on the "Timaeus", and, though
I do not know whether this work has yet been published
or not, I have taken the liberty of referring to it
frequently.

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CHAPTER I.
The Interpretation of the "Timaeus".

The "Timaeus" is for many reasons a singular Platonic "dialogue". Apart from its introduction, in form it is really not a dialogue at all, but a monologue or continuous discourse delivered by one man, and it is the only Platonic work which is taken up with the advancement of a detailed cosmological scheme. In addition to physical doctrines, it embraces within its scope speculations also on metaphysics and ethics, physiology and therapeutics, pathology and psychophysics. The whole dialogue is a curious mixture of imagination and reason, and bristles with debatable points. So far from professing to be an accurate treatment of its subject, it claims to be nothing more than a "tale" (μύθος), although a "likely" (έικός) one. It contains much that is a priori and fanciful, so that it is difficult to determine beyond dispute what is merely "Dichtung" and what is meant as "Wahrheit", to distinguish between pictorial embellishment and serious philosophy.

There are thus two fundamental questions which suggest themselves and on which any interpretation of the dialogue must turn, viz., (1) How much of the exposition is doctrine? How much is put forward διὰ μυθολογίας, and how much διὰ σιδήρῳς? (2) Is it Plato's doctrine? If not, whose is it, and to what extent, if any, may we suppose Plato himself to be in agreement with it?
At this stage I must more or less content myself with simply stating the two problems, but it will be convenient to make some general observations about the Platonic dialogues and their interpretation.

Now it is plain that the dialogues of Plato can only be rightly read in the light of the purpose for which they were written. This is the δεξιότητα from which any proper estimation of the dialogues must start, and in this connexion I may be permitted to summarize under four heads the outstanding arguments of Professors Burnet and Taylor. (1) The dialogues of Plato are remarkable in that their "dramatis personae" are not fictitious figures, like those for instance in the dialogues of Hume, but are generally well-known named historical persons of whom accounts have come down to us, men whom we know to have figured in the political and intellectual life of Athens during the generation of Socrates and that of Plato - e.g. the two famous Sophists Gorgias and Protagoras, the Eristics Mithydemus and Dionysodorus, the young mathematician Theaetetus, above all, Socrates himself. Timaeus, the eponym of our own dialogue was, despite M. Rivaud's denial, a fifth-century Pythagorean - a fact which is not only testified by a unanimous tradition but is corroborated by the whole character of the cosmology put into his mouth. Is it
then likely that Plato made the various interlocutors of his dialogues speak, not in a manner demanded by their historical characters, but as he himself wanted them to speak? Are we to suppose that he deliberately outraged historical truth and took unpardonable liberties by fathering on two of his characters in particular, Socrates and Timaeus, views and theories of his own? A significant fact is that there are only two anonymous speakers in the dialogues - the "visitor from Elea" in the "Sophist" and the "Political", and the Athenian legislator of the "Laws", and it is reasonable to infer that Plato purposely made use of this literary device to allow himself perfect freedom in the expression of the specifically logical and juristic matter with which the two speakers respectively deal. In short, we must not lose sight of the fact that Plato was a consummate dramatist, and that his productions are in a real sense philosophical dramas. (2) It seems clear that Plato did not intend his dialogues to serve as a systematic body of knowledge from the fact that Aristotle, his most famous disciple, speaks at "Physics" 203a 6, 203b 25, of certain ἀγαθὰ δόγματα or "unwritten teaching" in a manner which implies that these enunciations embodied Plato's own crystallized thought. These ἀγαθὰ δόγματα probably mean in particular Plato's famous lectures Πειράματα, of which notes were taken and published by Aristotle and at least four other auditors- Spensippus,
Xenocrates, Histiaeus, and Heraclides of Pontus (cf. Aristotle's Fragments, Rose p.41). Plato was evidently a lecturer before he was an author, and a director of research before he was a lecturer. The Academy, and not the dialogues, constituted his life-work. He took care, as his master did before him, never to confuse "education" with "information"; for him "learning" meant not the passive absorption of ascertained facts, but active engagement in original research. The Seventh Epistle (341b) gives us his flat disavowal of any intention or even ability to articulate his thought into a definite written "system". That Plato could never have composed an educational compendium is just the most cogent argument against the authenticity of "Alcibiades I" as a work written by Plato himself. (3) Probably using as his authority the ἀγραφα ἰδεῶμα referred to, Aristotle at "Metaphysics" A.6 gives an account of an esoteric Platonic "doctrine" (πραγματεία) which is much more definite and indeed different from anything we can extract from the dialogues. The doctrines which this account summarizes must have been taught by Plato at least as early as 367, the date of Aristotle's admission to the Academy, twenty years before Plato's death, since Aristotle knows nothing of any volte-face in Plato's teaching. (4) Philological and stylometric enquiries conducted during the last fifty years make it reasonably certain that a broad line of demarcation is to be drawn in
Plato's literary activity between an earlier series of dialogues culminating in the "Republic" and a later series composed between 367 and 347 and consisting of the "Theaetetus", "Parmenides", "Sophist", "Politicus", "Timaeus", "Philebus", and "Laws". The first series reflect a more or less homogeneous and consistent body of thought; they present real conversations and it is plain from the central place given to Socrates that Plato, like other "viri Socratici" such as Xenophon and Antisthenes, is here seeking to furnish a faithful portrait of his master. The later dialogues, however, are characterized by a tendency to continuous and philosophical exposition; the dialogue ceases to be a colloquy and becomes a disquisition. In keeping with this tendency is Plato's avoidance of the earlier dramatic method of indirectly reported narrative for that of directly enacted dialogue. As the earlier dialogues were intended to serve as aide-memoires or memoranda of the Socratic "conversations", so, it would appear, these later dialogues were primarily intended to interest the intelligentsia of cultivated readers and to initiate them into philosophy. They certainly do not reproduce Plato's teaching to his personal associates in the Academy, since we cannot elicit from them those points of doctrine which Aristotle in the "Metaphysics" represents as Ίδια Πλάτωνος.

In view of these considerations, I think we can hardly fail to agree with the position of Professors
Burnet and Taylor, that it is quite impossible to construct from the dialogues of Plato any coherent and systematic "Vade Mecum" of the Platonic "philosophy". It is wrong in principle to suppose that all the various parts of the Platonic corpus can be connected organically into a clearly articulated "catalogue raisonne". In interpreting the "Timaeus", therefore, it follows (1) that it would be quite illegitimate to regard Timaeus simply as Plato's προφήτης, and (2) that it would be equally inadmissible to try to quadratize the thought of this dialogue with that of others, as Archer-Hind does, so as to exhibit the "Timaeus" as "a master-key, whereby alone we may enter into Plato's secret chambers" (Archer-Hind's Edition, Introduction, p. 2). The "Timaeus" is no "Open Sesame" to Platonism, and is not intended to convey any of the distinctively Platonic doctrines of which Aristotle tells us.

Does this, then, warrant the assumption that the "Timaeus" is simply a reproduction of doctrine to which Plato himself was indifferent? I do not think it does. It is hardly conceivable that Plato ever contented himself, even in the earlier works, with the bare task of simply recording the thought of others, and that he did not interblend in some degree at least observations of his own with earlier speculations with which he felt sympathetic and which may have influenced the direction which his own distinctive doctrine took. Plato's relation to the "Timaeus"
can hardly be that of impassive reporter and no more. The earliest tradition, with the possible exception of Aristotle, seems to have assumed without question that the "Timaeus" embodies Platonic thought. Grantor, επώτος τοῦ Πλατάνος ἐφηγήτης (Proclus, Diehl I.76.1) and a pupil of Xenocrates, evidently thought that it was Plato he was expounding when he wrote his Ἑπομνήματα or Commentaries on the dialogue. Xenocrates himself seems to have based a treatise on part of the dialogue, viz., the Ἐφίκης mentioned by Diogenes Laertius IV.25. Even Aristotle frequently refers to the dialogue by means of the expression "Plato in the Timaeus" or by the word "Plato" alone - e.g. "Met." 1071b32, 1072a2. "De Anima" 404b16. "De Gen." 325b24, 332a29. Later tradition appears to have regarded the dialogue as the very centre of Platonism. Proclus (Diehl I.13.14) records approvingly the statement of Iamblichus that between them the "Parmenides" and the "Timaeus" embody the whole Platonic philosophy about the "omne scibile", the former laying more stress on intelligible, the latter on concrete existences. Plutarch devotes more than one σύντομα to the problems arising from the dialogue, and wrote a complete essay Πει τῆς ἐν Τιμαίῳ ψυχογονίας. Cicero translated the work into Latin, while much of Plotinus' "Enneads", the fourth "Ennead" in particular, is largely a recension or réchauffé of the "Timaeus". In his references to the dialogue, Plotinus continually names Plato - e.g. Ennead II.1.5, 1.7, III.6.11-12, 7.13, 9.2, IV.3.32, 4.22.
V.1.3, 9.9. VI.3.1. Such unanimity amongst the writers of antiquity as to the character of the dialogue and its importance in Plato's thought, while from the considerations already adduced it should not lead us to look upon the "Timaeus" as a sort of "passe-partout" to "Platonism", at least justifies our keeping an open mind on the question of Plato's agreement with the main position and general spirit of the dialogue.
CHAPTER II.

The Introduction of the Dialogue.

I. The Personnel and Dramatic Situation. The personnel of the "Timaeus" consists of Socrates, Timaeus, Critias, and Hermocrates. Proclus assumes without question throughout that Timaeus was a Pythagorean (cf. Diehl I. 71.19, 204.3, 237.5, III. 153.9), so that this was clearly the accepted tradition. He records the "universal agreement" (συναίνειται παντί) that Plato had in hand the treatise of the Pythagorean Timaeus (I. 7.17), implying at I. 13.12. that this is the Timaeus of our dialogue. At I. 223.5 he comments on the sustained and didactic character of Timaeus' discourse in contrast with Socrates' method of eliciting the truth by dialectical examination of the opinions of others, and this, he says, proves of itself that "Timaeus is a Pythagorean and that he is keeping to the form used by the Pythagoreans in their discussions". The tradition is shown to be right by Plato's own description of Timaeus at 20a as one who had distinguished himself both in office and in philosophy at the "Italian Locri" and by the further description of him at 27a as expert in astronomy and natural science; while the character of his "Naturphilosophie" enables us, as Professor Taylor has conclusively shown in his Commentary, to specify still further that he was a fifth-century Pythagorean of the same type as Philolaus (Burnet, "Early Greek Philosophy" III. 278.9). That Plato does not explicitly describe him as a Pythagorean is in keeping with the habitual care he
elsewhere takes to refer to Pythagoras or the Pythagoreans only in veiled and covert language. Thus it is to the Pythagorean order that Plato alludes at "Gorgias" 507.8 when he mentions "the sages" who hold that "reciprocity" (κοινωνία) is the basis of all moral and physical order; and again when at 493-4 he mentions some "Sicilian or Italian wise man", it is probably to Philolaus or some such Pythagorean rather than to Empedocles that he is referring (this passage is also worthy of notice for its significant coupling of "Sicilian" and "Italian", since the amalgamation of Pythagorean mathematics and the views of the Sicilian Medical School was just what Philolaus sought to do). The ἐπίμαθος ἀρχηγός whose absolute dualistic severance of real "being" and illusory "becoming" is discussed and criticized at "Sophist" 245 e[. probably mean certain Pythagoreans, as Professor Campbell first supposed; and it is certainly Pythagoras who corresponds to the "Prometheus" spoken of at "Philebus" 14e as having revealed to mankind the distinction between πέρας and ἀπειεία.

Critias, as Professor Burnet proves, cannot be the Critias who played a prominent part in the oligarchical usurpation of 401-3, but is the grandfather of this Critias and Plato's own maternal great-grandfather. The detested Critias δὲ τὰν τριάκοντα was no "persona grata" to Athenian memory and to name a dialogue after him would certainly have been a serious "faux pas" on Plato's part. Similarly we cannot but agree that Hermocrates is the man
who was general of the Syracusan forces during the Athenian Sicilian Expedition, 415-413. For it is clearly implied in the introduction that, while Timaeus and Critias are both old men of learning and experience, Hermocrates is a young man of promise with his career still before him. This no doubt is the reason why he remains more or less a κωφόν πρόσωπον throughout. A fourth person, we learn (17a), had been prevented by illness from appearing at the meeting. Who is meant it is impossible to say and Proclus, who mentions various conjectures made by οἱ παλαιότεροι (as, e.g. that it was Theaetetus or even Plato), is probably right in agreeing with the suggestion of Atticus that the absentee was, like Timaeus, a stranger to Socrates, which explains Timaeus' apology for his absence (Proclus I.19 30f. cf.I.15.)

The situation at the opening of the dialogue is this. On the previous day Socrates had repeated to Timaeus, Critias, Hermocrates and the fourth person the conversation recorded in the "Republic," and to requite his hospitality the others had agreed to regale Socrates with a return "feast of reason" by "supplying the sequel" (20b). Socrates would like to hear theory converted into practice, but distrusts his own ability to give his picture the touch of life. The three friends by their happy combination of philosophy and statesmanship are alone qualified to make good the deficiencies of the doctrinaire. It is proposed, therefore, that Timaeus should give an account of the creation
of the world and thus bring to birth in theory the men
whom Socrates had trained, while Critias is to depict
them as living and active in practice by narrating what
is claimed to be an ancient legend preserving details of
the constitution and achievements of pre-historic Athens and
by directing attention to the similarity of its institutions
to those of Socrates' Καλλίπολις. Thus the three dialogues
"Republic", "Timeaeus" and "Critias" are expressly connected
together, though logically, of course, the order should be
"Timeaeus", "Republic", "Critias". Proclus remarks upon
this anomalous position of the "Timeaeus" in the trilogy at 1.200.4f. Why, he asks, does not the "Timeaeus" precede the
"Republic", since its theme is the γένεσις or beginning of
mankind and γένεσις is prior to προφήτης? Proclus' own answer
is that it is with the analysis of moral and not of physical
values that Socrates is concerned and that in treating of
man's training and education he is considering the universal,
so that in rational (λόγως), though not in natural order
(κατὰ φύσιν), the "Republic" rightly takes first place.
For though the "Republic" may be inferior to the "Timeaeus"
in that its theme is more partial, yet in point of treatment
of the universal it is superior. For the same conditions
give us equally justice (σικαροσύνη) in a soul, a
constitution (πολιτικά) in a city, and skill or workmanship
(δημιουργία) in a world (201.10). Indeed, in the
"Republic" itself the citizens are first duly trained and
educated in the various preliminary pursuits of learning
before they are allowed to study τὰ ὀντὰ, from which
again they descend to take their part in active life.

II. The Recapitulation of Republic I - V. At the request
of Timaeus, Socrates first of all refreshes the memories of
his companions by again recounting in brief (ἐν κρήναιοισιν
πάλιν ἐπανελθεῖν, ἱπατίοι) the conversation held at the
house of Polemarchus. He gives a short résumé of the
political and sociological institutions which form the
matter of the first five books of the "Republic" - the
division of society into artisans and guardians according
to the economic formula "one man, one trade", the development
of the psychological elements of Spirit and Love of Knowledge
in the guardians by means of gymnastic, music and such
studies, the abolition of private interests, the admission
of women to the employments of men, and the control of
marriage on eugenic lines. No mention is made by Socrates
of the metaphysical teaching of the "Republic" and it is
sometimes supposed, therefore, that the "Timaeus" is
intended to reflect an ontological doctrine improving on
or replacing that of the "Republic". But the true
explanation is clearly the simple one that in recapitulating
the conversation Socrates' object is not to expound
metaphysics but only to describe the constitution of the
perfect commonwealth; what he wants particularly, as he
himself says (19 b, c.), is a representation of his ideal
city acting in accordance with its structure, and its
structure is therefore all he has occasion to describe.
The same consideration explains the fact that, in describing the ἔρυθρον of the φύλακες at 13a, Socrates makes no reference to their training in "geometrical investigations and the kindred arts" (αἱ γεωμετρεῖαι τε καὶ τῶν ἀσκομίδων τέχνην Rep. VI.511) - Arithmetic, Plane and Solid Geometry, Astronomy, Harmonics - and in Dialectic, the Θειγκός or "coping-stone" of the sciences. For, as Professor Taylor remarks, the scientific education prescribed for the φύλακες in the "Republic" would hardly have been feasible in the pre-historic Athens in which Critias finds the concrete embodiment of Socrates' political ideals. Gomperz ("Greek Thinkers", Eng. Trans. p.203) interprets Socrates' silence in a similar manner. That Plato had not abandoned his conception of the importance of the various special μαθηματικά as a training for statesmanship and of their comprehension under the all-controlling science of Dialectic is clear from "Laws" XII, where in discussing the education of the supreme "nocturnal council", the Athenian legislator insists that the members must be thoroughly scientific mathematicians and astronomers (966 ff.). The "Σποινοιμία" also is devoted to the discussion of the σοφία of the true statesman and in a similar spirit lays stress on the importance of astronomy based on a scientific arithmetic and crowned by a synoptic insight into the fundamental unity pervading and connecting the whole sphere of knowledge.
Proclus discusses this \( \varepsilon \pi \alpha \nu \varphi \sigma \delta \sigma \varsigma \tau \varsigma \) \( \Pi \omega \lambda \iota \gamma \varepsilon \alpha \iota \varsigma \) at length (Dichl I. 29.31 - 75.26). One party of interpreters, he tells us, gives to this part of the dialogue an especially ethical significance, understanding it to mean that before engaging in physical speculation one must first learn regulation of character. Another party regards the résumé and the tale of Atlantis which follows as a preliminary picture, by means of images (\( \varepsilon \iota \kappa \omicron \omicron \iota \kappa \varepsilon \varsigma \) \( \iota \varsigma \)) and symbols (\( \sigma \mu \rho \omicron \omicron \lambda \omicron \iota \kappa \varsigma \) \( \iota \varsigma \)), of the creation and structure of the universe, in accordance with the Pythagorean custom of prefacing scientific exposition with relevant similes and illustrations (30.4, 33.3). Here the reference is clearly to Porphyry and his disciple Iamblichus respectively, for (a) at 19.34 we are told that at almost every point Porphyry interprets the introduction in a more social vein (\( \Pi \omega \lambda \iota \kappa \iota \iota \epsilon \tau \epsilon \rho \omicron \), Iamblichus in a more physical (\( \phi \omicron \sigma \iota \kappa \iota \iota \epsilon \tau \epsilon \rho \omicron \), and an illustration of their different points of view is given at 116.37-117.20, and (b) at 202.3 the first way of looking at the résumé is expressly ascribed to Porphyry. It is Iamblichus' interpretation that Proclus favours. The whole dialogue, he says, is physical in character throughout, though the form varies in different places, and the recapitulation of the "Republic" gives us as it were a bird's-eye view of the arrangement (\( \delta \iota \kappa \omicron \sigma \mu \eta \varsigma \) \( \iota \varsigma \)) of the universe (54.27). It is simply a panoramic adumbration of \( \varepsilon \gamma \tau \omicron \omicron \) \( \kappa \omicron \sigma \mu \eta \) \( \sigma \mu \rho \omicron \omicron \varepsilon \gamma \omicron \omicron \omicron \) \( \iota \varsigma \) (72.19), and Proclus is therefore at considerable pains to draw attention to various fantastic
points of analogy between the Επινοεσ (Επανάληψις, ἀνακρασίως) and the rest of the dialogue - cf., e.g., I.33. 23, 36.7, 44.5, 48.26, 49.21, 52.15, 53.24.

III. The Tale of Atlantis. Socrates would now like to hear of the state's relations and wars with other cities and to see her generally acquitting herself in a manner worthy of her education and training (193). In reply Critias briefly relates what purports to be a "vera historia" preserved by the Egyptians about the subjugation of a vast island called Atlantis by an antediluvian Athens and the island's subsequent destruction and submersion in a day and night. This is, of course, somewhat miraculous geology, but, like the similar destruction of Athens by means of a flood, it serves as a convenient though transparent device for getting rid of Atlantis and wiping the fiction off the map. For here we can safely say of Plato "il a inventé l' histoire". Yet the amount of speculation that has been occasioned by such a manifest piece of the imagination is remarkable. Proclus is so firmly convinced of the philosophical importance of Σ πεὶ τῆς Ατλαντίδος μόθος that he devotes 150 pages to its discussion (I. 75.30 -201), and he gives us a detailed record of the various opinions regarding the authenticity and purpose of the narrative. (1) Grantor considered the tale to be simply a bare chronicle of facts (ἡ Σοροείδος, 75.1). Plato had been ridiculed for "Egypticizing" in his "Republic" and was so affected by the gibe that, by means of this tale
(the truth of which is testified by records still preserved by the Egyptian seers), he shows that the Egyptians themselves acknowledge that there had existed such an Athenian πόλις as Socrates describes in the "Republic". (2) Others regarded the account as a "fable and fabrication." (μύθος και πλάσμα, 76.10), but as at the same time an illustration of the factors operating in the universe at large. These, objects Proclus, ignore Plato's explicit avowal that the tale, though extraordinary, is "absolutely true", and the expression "absolutely" (παντα πασι), he urges, is surely significant. (3) Others again, without repudiating the literal truth of the narrative, believed that its real purpose is to symbolize the "diversities" (ἐνεντιώσεις, 76.19) pre-existing in the universe, as, e.g., the "opposition" of fixed stars and planets (Amelius) and of good and bad daemons or "spirits" (Origenes). Of the same nature was the interpretation favoured by Iamblichus and Syrianus and approved by Proclus himself, viz., that while the tale must be regarded as true and authentic, it has a meaning applicable to the universe at large and has to be taken in conjunction with the summary given of the Republic. The πολιτεία described corresponds to union and sameness in the κοσμοποιία, the πόλεμος to disruption and difference (78.15). (4) Longinus (c.213-273 A.D), believed that the sole object of the tale is to interest and win over the hearer exposition (ψυχαγωγεῖν, 82.23) in preparation for the severe scientific
which is to follow. Whether Longinus regarded the tale as an historical account or not Proclus does not say, but we may gather from 129.10-21 that he did.

Proclus reverts again to the various interpretations of the narrative at I.129.9. There seem to have been two mutually opposed sets of interpreters: (1) those who conceived it to be simply a straightforward historical record (ἱστορία πραγμάτων), intended primarily for the χαράγματα or capture of the hearers (i.e. Crantor and Longinus), and (2) those who regarded the narrative as a romance or story (μύθος), but as a story with a meaning, just as the fable of Phaeton at 22c of the "Timaeus" signalizes a natural event, and who accordingly gave a physical interpretation to the tale. These were the two camps of the opposition (130.8 - πάντα μὲν οὖν ἐκάτεροι λέγουσιν). Proclus himself compromises, with Iamblichus and Syriander, by maintaining that the tale is ἱστορία but that it is also a symbolical indication of cosmic "diversity" (130.9. 132.15). That the island of Atlantis existed in fact is confirmed, he says, by the evidence recorded in the "Ethiopics" of Marcellus (177.10 -21) that in the sea beyond there used to be ten islands one of which was in possession of a tradition to the effect that in former times all ten had been governed by a larger island named Atlantis. Proclus emphasizes the truth of the story once more at 190.7 - ὁ δὲ πέπλασσε τὰ ἔρθεντα, ἀλλ' ἀληθῶς ἐστι, and insists again on its cosmic significance. In fact, he
concludes (204.16f.), the whole of the preface of the "Timaeus", which Severus had considered unworthy of any interpretation, fits in with the scope and subject of the dialogue. It all serves as a suggestive or preamble to the ensuing scientific discourse; it is a sort of προτεύειν or initiatory ceremony before we pass from τὰ μικρὰ to τὰ μεγάλὰ (205.20).

The true comment on all this is that which seems to have been made by Longinus, that "Plato does not use riddles to expound his doctrines" (129.15).

The vision of a submerged "lost continent" has fired the imaginations and inspired the researches ever since of explorers, geographers, geologists, archaeologists, biologists, and even though the evidence is always inconclusive, speculation on the subject is still rife. We may mention three of the very latest theories.

(1) Attention has been drawn to certain affinities in type, art, and religious outlook between the Neolithic cave-dwellers of Spain and Southern France and the natives of Mexico and Yucatan, and it is suggested, therefore, that for ethnological reasons the sunken Atlantis is to be found in the ocean-bed of the Atlantic Ocean. (2) There was formerly, during the Bronze Age, a land-link or ridge between England and the mainland of Europe, still discernible in the Dogger Bank — scientists are satisfied of the fact — and accordingly a Swedish professor and geologist has come forward and declared that here is Plato's
fabled continent, beneath the waters of the North Sea. (3) Finally, a Professor Borchardt, of Munich, is now trying to prove that the mystery continent is not beneath the Atlantic nor the North Sea, but is a portion in the North-North-West of North Africa, the now almost dried up Shott el Djerid, and the Director of the Archaeological Board in Tunis, Professor Poinsot, has granted permission for work of excavation to be begun.

Really, however, the whole tale is nothing more than an ingenious romance and fantasy, to which Plato adroitly gives plausibility by referring to Solon as his authority. Critias' complicated explanation of its provenance is itself sufficient to show that the narrative is a concoction. He heard the story, he says, from his grandfather, who heard it from his own father Dropides, who heard it from Solon, who again heard it in Egypt from a priest, who finally got it from "sacred records" in an Egyptian temple. It will be noticed that Socrates' objection to the fitness of the poets to supply his want is just that they are "imitative" and lack imagination (19d), which pretty plainly implies that the whole tale is a figment of Plato's own imagination. The object is transparent. Socrates asks to hear of his Καλλιπόλεις in action, and this is done by the tale of Atlantis. The narrative is closely connected with the recapitulation of Republic I -V. which precedes, and serves to justify and defend the sociological views there expressed. Plato never seems to
have regarded the pattern city of Socrates' dreams as an impracticable ideal; even in the "Laws" he does not really recant what is proposed in the "Republic", but only undertakes the construction of a form of society which shall serve as an easier and more tolerable "piis-aller." In the "Republic" Socrates continually reiterates his confidence in the feasibility of his imagined commonwealth. "That the Muse of philosophy should become mistress of a city is not impossible, nor are the things we describe impossible. But we admit that they are hard" (499d). "Our proposals are desirable if they can be realized, and their realization is difficult, but not impossible" (502c). "Our words concerning city and constitution are not mere pious prayers; our proposals are difficult, but somehow practicable" (540d). Plato regarded the visionary πολις described by Socrates as something more than a "civitas dei", and we may suppose that he offers in his invented pre-historic Athens a firm defence of his political aspirations, adding still further conviction to the portrait by putting the tale into the mouth of one who was himself an embodiment of philosophy combined with state-craft (192c, 202a). "The imaginary citizens and city which yesterday you described to us, we will now convert into historical reality, and we will consider the state established by you as none other than ancient Athens. They will tally in every respect, and we shall not be far from the mark in asserting that your citizens are the veritable people who existed at that time" (26d). The
narrative is "a real fact, though unrecorded in history" (21a, 21d), "no pictured tale, but a true record" (26e). It is easy to "read between the lines" and to see that these reiterated protestations are meant simply to convince readers that the imaginary city of Socrates is no chimerical, quixotic Utopia, but an ideal within human attainment and one that had found a parallel in the distant past. Proclus also sees this point. For at I.191.27f. he observed that, looking at the μῆθος in another way, it shows that it is possible for ἡ πόλις Σωκράτους to exist in actuality, and that is why Socrates receives it with such enthusiasm. This consideration, he urges, justifies the conclusion that the tale "was not after all a fabrication" (οὐκ ἦρεν ὑπ' πλάσμα, 197.13).

The moral of the μῆθος is equally patent. Not only can the ideal πόλις exist in actuality, but it can exist with success. The tale symbolizes the conflict of culture and materialism, and indicates that φιλοσοφία, represented by ancient Athens, will always justify itself. So in the "Critias," where the narrative is again taken up, we are told that Hephaestus and Athens, being united both by blood and by "love of philosophy," were allotted a land naturally adapted for "wisdom and virtue"—Athens (109). The men and women of ancient Athens were renowned all over the world for the many "virtues of their souls" (112). For many generations the people of Atlantis likewise united "gentleness with wisdom" and despised everything but virtue,
but gradually their lower nature asserted itself until Zeus sent retribution (120). The moral could not be put more clearly. It is noticed by Proclus himself, for he remarks at I.173.9 that the subjugation of Poseidon by Athens, celebrated by the Athenian festival and re-enacted in the defeat of Atlantis by antediluvian Athens, stands virtually for the victory of the intellectual life (νοημικά) over γένεσις, of the spiritual and united over the material and divided.
CHAPTER III.
The Discourse of Timaeus.

General Argument.

Timaeus commences his discourse concerning the γένεσις τοῦ κόσμου by laying down the broad distinction between that which is eternal (τὸ ὄν ἄει) and is intelligible, and that which is always becoming or coming into being (τὸ γενόμενον ἄει) and is sensible. He further assumes that, as the eternal is uncaused and has no "beginning of becoming" (γένεσις ἄει), so that which becomes is dependent on a cause (ἀιτίαν) and is accordingly "begotten" (γεννητὸν, 28c) or "born" (γενόμενον, 28c2, γεγονός, 29a). To which of the two categories does the οὐρανός belong? Obviously the οὐρανός is sensible, therefore it is a γενόμενον, and therefore also a γεννητὸν. (It will be noticed that the whole reasoning depends on the a priori presupposition that nothing ever "becomes" unless there is a cause for its "becoming", on the equation of that which is becoming (i.e. subject to incessant change) with that which has become in the sense that it is referable to a pre-existent causal source. Proclus, in a long discussion of this passage (I.227f), asks, What is the precise extent of this initial distinction between ὄν ἄει and γενόμενον ἄει? Does it cover everything without exception (πάντα τὰ ὄντα ἐν χώρᾳ) or not? Does τὸ ὄν ἄει, for instance, refer simply to the Existent One (τὸ ἐν ἐν), which is the first participant in the One Itself (τὸ ἐν αὐτῷ).
and the highest intelligible, as Iamblichus thought (230.5, 232.8), or does it mean more? Proclus, while admitting this Neo-Platonic distinction between the One and the Existent One, rightly says that here Plato means by τὸ οὐ ἄθικός the whole eternal world generally (ἅπαξ δὲ ἄθικός κόσμος, 230.31). Likewise τὸ γίγνόμενον signifies everything of a corporeal nature, so far as it is regularized by something else (233.8f). There is no need to enter into Proclus' refinements concerning τὸ γίγνόμενον ἄθικός and τὸ γίγνόμενον ποτέ (233.22f.) and the various aspects of τὸ ἄθικός (234.6). It is sufficient to notice that Proclus sees that Timaeus is simply drawing a broad distinction between "Being" and "Becoming", eternal and mutable, and that he recognizes that the essential character of τὸ γίγνόμενον is its dependence as a derivative on something other than itself. τὸ δὲ γίγνητον ἐστὶ ἄλλο ἄνεγειται καὶ ἅπα ἄλλων ἄριστων ἐκ τῆς παραδοσεως (239.31, cf. 243.21).

The world, as Proclus has remarked at the beginning of his Commentary (3.8 - I Diehl), "is moved by something else and is by nature unable to produce or to complete or to preserve itself."

Everything that "becomes", then, has an ἄνεγειται. Now the ἄνεγειται of the universe, its "Maker and Father" or θεὸς (ὁ θεὸς, 30a), is indeed "hard to find and impossible, when found, to communicate to all men" (270). (I.e., that there is an author of the universe, whom we
call God, is testified by reason. "For every house is built by someone, but He that built all things is God" (Hebrews III.4). The fact of God's existence as cause is shown by the bare ontological argument that the world must have an author; but the mode of God's existence, the nature of this Author, is not so easily discovered. Proclus puts the matter this way (I.300.28f). True apprehension of God is not a matter of opinion nor of a scientific syllogism, but is reached by a pure intellectual contact and union (Ενώσις, 302.14), by a silence as it were (ἀπό σιωπής, 303.8) of the soul, and therefore it cannot be communicated to others except by the imperfect means of a scientific process. What Proclus is thinking of is the distinction between what we would call reason "discursive" and reason "intuitive".

We may, however, ask: "On which archetype did God fix His gaze when He fashioned the world - the eternal or the begotten? If He used the former, His work must be beautiful; if the latter His work cannot be beautiful. But the universe is "most beautiful of all things that have come into being", whence it follows that God "locked to the eternal". God is in fact "the best of the causes"; He is simply the wise and good Artist (δημοσευγός) who has constructed this universe after a changeless and eternal model (παράδειγμα). Thus Timaeus is really following up the cosmological argument for the existence of God with the
teleological. The first argument amounts to no more than
Locke's sterile proposition, "Something must be from
eternity"; the "argument from design", the oldest of all
arguments, is the guiding thought of the "Timaeus" and is
at the bottom of the theism of "Laws" X. Note (1) The word
δύναμις appears first in apposition to παράδειγμα at
23a. Thus its real significance is not creation, but
artistic operation. (2) God is described as the "best of
the causes", so that there is no ground for the later
Neo-Platonic view that above the Demiurge there is a yet
superior God. (3) Proclus acutely notices that Plato is
really making Timaeus follow the geometer's method of first
laying down and defining a certain postulate or hypothesis
and then proceeding to deduce its consequences or
implications (τὰ ἐπώνυμα) before demonstrating the truth
of the hypothesis itself (Proc. Diehl I. 228. 25, 236. 15. cf.
329. 13, 343. 13, 355. 34, III 7. 19). Thus Timaeus starts with
the assumption of τὸ ὅν ἀεὶ and τὸ γνωστὲν ἀεὶ and
defines these terms. He tells us what they are before
proving that they are. For just as the geometer, before
demonstrating his proposition, tells us what a point or what
a line is without showing that it is a point or that it is
a line, so Timaeus says first what τὸ ὅν is and what τὸ
γνωστὲν for the sake of his immediate argument (236. 30f.).
This, says Proclus, is quite within the province of φυσιολογία
(it is, in fact, the scientific method, the σκέφσις ἐν λόγοις,
explained at "Phaedo" 101d). Later on, however, Timaeus
will go on to give an account of the postulate itself and to prove that ῥό ὄν is and that ῥο γνώμην comes into being (Proc.I.237.7). As it is, by the assumption of these two γένη, we get the following συλλογισμός (Proc. 264.10f., 225.24f.). The universe has come into being. If it has come into being, it has come into being from a cause. There is, therefore, a demiurgic cause. If there is a demiurgic cause, there is also an archetype or pattern on which the Demiurge modelled the universe, either pre-existing in the Demiurge Himself or external to Him, and either superior to or inferior to or co-equal with Him. And, by laying down the further ἡμέρα that the world is beautiful, we can next discover whether this pattern is ἡμέρα or γένη τοῦ (264.30). For eternal patterns are the patterns of things beautiful, begotten patterns of things not beautiful. The world is beautiful. It is, therefore, the copy of an eternal ἑκάτερα. At this point Timaeus lays down an important canon which is to guide his whole discussion. "This must be posited with regard to a likeness and the pattern from which it is drawn, that the discourses must be kindred to the subjects which they have to express. Discourses about the permanent and stable reality disclosed with the aid of thought must be permanent and unchanging likewise - so far as discourses can possibly and properly be both irrefragable and incontrovertible, they must in no way fall short of this; but discourses about that which is likened
to the former and is a likeness, should be likely and corresponding with their subjects. Knowledge stands to Belief as Belief to Becoming" (29bc).

To refer to Proclus' commentary on the passage (1.339.5f.), Plato, having defined the universe as γεννήτων and αἰσθήτων, next goes on to explain that, as there are two subject-matters, τὸ ἥν and τὸ γεννήτων, so there are two respective modes of apprehending them (γνώσεως), viz., Intelligence (νοησίς) and Belief (δοξα), and two correlative modes of discussion (λόγος), viz. the permanent or abiding (μόναμοι) and the likely (εἰκοτες). Timaeus accordingly only claims probability for his exposition; what he is giving is not "exact science" but a "likely tale" (εἰκοτες μισθος, λόγος). Nature is in a constant state of inchoation, and since thought must always resemble its subject-matter, the knowledge of nature must always be incomplete.

Proceeding with his discourse, Timaeus explains that the true cause of the existence of the universe is the goodness of God. God's nature is not a "grudging" one, and so He resolved to extend His own blessedness as far as possible to something outside Himself. In Aristotelian phraseology, as Proclus remarks (1.337.3), after what the universe is (τὸ τί) and what kind of a thing it is (τὸ διὸ διατότων), we must investigate on what account it is (τὸ φύσι τί). God, therefore, took over "all that was visible", a wild, lawless, featureless Thing Bohn, "moving without measure and without order", and gave to it ordered configuration by
modelling it on "the all-perfect animal" (τὸ παντελὲς Ἰάμον, 31b), the eternal Generic Living Creature, the "Self-Animal" (τὸ ὑπὸ Ἰάμον, 39°), which embraces all the specific "forms" (ἴδεα) of animal. As the prototype is one and cannot be second with another (since then the form which covers the two would be the true exemplar), so the octotype is one also.

Now the world, as Timaeus has already remarked, is γενόμενον and τὸ γενόμενον must be visible and tangible. Hence the universe must have a body. By a quasi-teleological and quasi-mathematical argument, it is shown that the body of the world is made of the four "elements", the Empedoclean Ἐλέαματα, fire, air, water, and earth. If the world is visible and tangible, it must have fire and earth, since the special characteristics of fire and earth are respectively visibility and solidity. But if fire and earth are to combine they need a connecting bond or "link" (ἀκόμος).

Proclus (Diehl II.29.31) explains the thought in this way. If there were only one element in the world, there would be no change, and all things would either be eternal or destructible. But if the elements must number at least two, these must be opposites to permit of mutual interaction. And if they are opposites, they will need a further factor to act as medium. Now the best "link" is an ἀνάλογον or "progression" consisting of a mean or means linking the first and last terms in a proper mathematical proportion. If the elements were planes (ἐπιπέδα), one mean would be
sufficient; but they are volumes (στέρεα), which have three dimensions, and accordingly our ἁνάλογα must consist of two mean proportionals. In this connexion Proclus (II.33.13f.) notes with approval the comment of a certain Democritus that Plato does not say and cannot mean that only one medium falls between any given planes or that two fall between any given solids. For, he observes, between some planes there is obviously more than one mean, as between 16 and 81 we get the ἄναλογα
16:24::24:36::36:54::54:81. One, however, is sufficient, and this is what Plato means (II.31.15). Timeaeus, as Martin explained, is only thinking of numbers which are the product of prime factors, of numbers consisting of two and three factors only and no more). God accordingly set air and water between fire and earth, so that we have the geometrical proportion - fire:air::air:water::water:earth.
(Thus, says Proclus, (II.39.19f.) each of the elements has two properties common to the element adjacent to it and one property different, which he tries to specify in this way: -

Fire - Rarity Sharpness (i.e. to the touch) Mobility.

Air - Rarity Dullness Mobility.

Water - Density Dullness Mobility.

Earth - Density Dullness Immobility.

The whole of this account, observes Proclus earlier (II.7.19f.) is just another instance of Plato's practice, already noticed, of beginning a discussion by means of an initial postulate from which he makes his proof. Thus Plato
previously laid down the proposition that "he who is good feels no envy of anything at any time" so as to prove that the Demiurge makes all things good. Similarly, he assumed that "it neither was nor will be right for the best to do anything except the most beautiful" in order to show that the universe possesses soul and intellect. So now Plato first lays down the proposition that "what has come into being must be visible and tangible" and from this goes on to show the interconnexion of the four "elements" in the world's structure. We may here note also that Proclus has an idea fixe that there are different forms or species (εἰδῆ) of the elements varying in quality in different parts of the universe (II.9.15, 11.18, 17.12, 56.17, 62.26), the purest and most perfect, the highest points (ἀκρότητες) existing in the heavens (II.429f), so that in this sense, though in this sense alone (cf.III.115.6), the heavens may be regarded as consisting of a "fifth essence" (πέμπτη ὀυσία, II.49.25, cf.III.112.29f; 115.4f, 142.3)

In shape, proceeds Timaeus, God made the universe spherical, because the sphere is the most perfect figure, and provided it with a corresponding motion, the most intelligent of all the seven possible motions - uniform rotation on its own axis. He gave to it no organ of sensation or locomotion, nor of nutrition or excretion, because it is sufficient to itself and so needed none.

But if the universe is truly to be the "most beautiful of things that have come into being", in
accordance with the divine plan, it must have understanding or reason, since "no work that is devoid of reason will ever be fairer than that which has reason". But to have understanding, the world must have soul; for understanding is only displayed by soul. God therefore gave to the world a soul. {Here again the reason for the existence of the World-Soul is just the goodness of the world's Maker. The Demiurge set reason in soul "in order that he might be the author of a work fairest by nature and the most excellent" (30b). As Proclus puts it at I.401.2ff., because the Demiurge is good, He makes the world most beautiful; because He makes the world beautiful, He gives intellect or reason; because He gives it intellect, He endows it with soul; and because He endows it with soul, He infuses into it life.}

In point of fact, God made the soul of the world before He made its body, although we give it second place in our discourse. "In order of production and of worth (γενέστι καὶ ἄριστο) God made the soul earlier and elder than body, to be mistress and queen whom the body should obey" (34c) {N. (1) the expression "earlier" and "elder" (προτέραν καὶ προσβατέραν) has no reference to antecedence in time, but is employed "propter excellentiam" and means only priority in order of dependence, as indicated by the further expression ὑπετέραν καὶ ἀράβουσαν, and (2) the passage keeps soul and body clearly distinct and thus of itself disposes of Archer-Hind's theory that the "Timaeus" teaches the "evolution" of matter out of soul.}
Now the substance of the cosmic soul is compounded by the divine Demiurge out of the Undivided and the Divided, which in composition yield a third form of existence. All these are next blended together. The product is then divided like a long ribbon or monochord in accordance with the lengths of a musical scale built out of a double geometrical progression of seven terms. Finally, the entire structure is split and bent into two intersecting circles in different planes and crossing obliquely, the outer of which is called the circle of the Same (οὐς ἐκ τῶν κύκλων) and the inner the circle of the Other (οὐς ἐκ Θατέρου κύκλων). The latter is again subdivided into seven concentric circles corresponding with the seven terms of the double progression. The two circles have a double significance: astronomically, they are clearly meant, as Proclus notices (II.238.1 cf.III.73.27), to stand respectively for the sidereal equator and the ecliptic, and thus account for the diurnal uniform revolution of the fixed stars and for the apparent irregularity of the planetary paths through the Zodiac; epistemologically, they represent the modes of the soul's spiritual and mental life, since they are the means by which the soul "declares that precisely wherewith anything may be identical or wherefrom anything may be different, in what relation or ways or means or time anything happens to be identical or different or to have either character predicated of it" (37a,b). God then invested
the body of the world with the soul thus created, in such a way that the soul encompasses and yet interpenetrates the whole universe. "God set soul in the middle and extended it throughout the whole, and again wrapped the body with her from without" (34b). "Everywhere from the middle to the very extremities of the universe she was interwoven and veiled it around from without" (36c).

Coeval with the creation of the universe was the creation also of time. Time could not have existed previously to the cosmos because tense, with its distinction between the parts of time, past, present, and future, does not apply to "eternal being" (ἡ ζώνος οὐ̂σια, 37c), but only to "becoming". To make the universe correspond as completely as possible to its eternal original, the Demiurge assigned to it an everlasting motion marked and measured by the recurrent movements of the heavenly bodies. For this purpose the seven planets, Moon, Sun, Venus, Mercury, Mars, Jupiter, Saturn, are set in the seven concentric circles of the subdivided κύκλος τοῦ Θεοῦ to control and regulate time. Time is thus simply measured duration, moving equably, "revolving according to number" (κατ' ἀριθμὸν κυκλούμενος, 38a), "defined and safeguarded" (38c) by the planets, the ὅμοια Χρόνου (42a). It is identical with the motions of the planets. This seems clearly to be Timaeus' meaning, as Aristotle understood —Phys.218b 1f. Proclus, however, will not believe that time is actually identified with "motion" (κίνησις) or "revolution" (περιφορή) —Diehl III.37,6f., περιφορή, he urges, means not only motion itself but also
the measure and extent (μέτρον καὶ παράτασις) of motion, so that when Plato speaks of time as the "wanderings" (πλάναι) of the planetary bodies, he is referring to their περίοδοι in this sense of Χρονικὴ μέτρα διάστήματα (III.37.21, 90.15). Proclus is obviously begging the question, for in defining time as τὸ Χρονικὸν μέτρον, he is including the term to be defined. His shirking of the issue arises from his desire to regard time as something exalted and not a mere ἄμυδον τί εἴδος (III.3.23).

Time, he is eager to show, does not exist merely in conception (ἐν φιλαῖς ἐπινοίας, III.31.5, κατ' ἐπίνοιαν ψιλῆν, 95.10), as the Stoics thought (III.35.9), nor is it something accidental (ὑμβεβηκός τί, III.21.6, ὑμβεβηκός τῆς κινήσεως, 95.14), as many Peripatetics supposed (95.9). Nor again is it even a by-product (γέννησι, III.22.28) or appanage (παρακολούθημα, 24.31) of soul, as others with truer insight supposed; rather is it that in which the soul is the first participant (III.22.28). Nor, finally, is time identical with the circle of the Other and eternity with that of the Same, as Theodorus supposed (III.24.32); rather does the circle of the Other incline to ἐγχρονι, and that of the Same to αἰώνια. Time is an οὐσία (III.23.27). Its nature is, in fact, dual (III.25.11f.). According to its internal activity (κατὰ τὴν εὖςον ἐνέργημα), it is properly eternal (αἰώνιος —cf. III.59.11), but according to its external activity (κατὰ τὴν ἔξω ἐνέργημα) it is κινητός. Thus time is ὑπερθόμισασ as well as ἤγκομιος.
(III.29.10, 53.16); in the former sense it is active, 
to άρειςμον, in the latter sense, it is passive, 
to άρειςμενον or to άρειςμονπον (III.26.15f., 32.22, 73.16); 
in the former sense, again, it is invisible (διαίνει), in 
the latter visible (διαίνεις - III.39.33f., 35.25f, 83.16f.). 
Plutarch in his "Platonicae Quaestiones" (Teubner Edition, G.N. 
Bernardakis, 1007a.25f.) similarly refuses to regard time as 
the "measure and number of motion in respect of prior and 
posterior" (Aristotle), or as "quantity in motion" (Spensippus), 
or as an "interval of motion" (Stoics). Pindar, he says, 
came nearer the truth when he described time as "the lord 
surpassing all blessed ones", and Pythagoras when he called 
it "the soul of this world". Time, insists Plutarch, is 
no affection (μαθέως or accident (συμβολήκος) of motion, 
but is the source of all the order and regularity and 
symmetry displayed by created things - 1007b10f. ).

The planets, then, were created to "join in 
the production of time" (συναπηγήσταται Χρόνον, 38c). 
Now the motion of the outermost circle is"to the right by way 
of the side " - from East to West, that of the inner circle 
"to the left by way of the diagonal" - from West to East, 
the plane of the ecliptic being inclined obliquely to that 
of the equator as the diagonal of a rectangle is to its side 
(36c); and, moreover, "sovereignty" (κράτος, 36c) is with 
the circuit of the Sun. Hence the planets have a complex 
motion. For while they are carried along with the "sovereign" 
E. to W. diurnal motion of the outer circle, they also
revolve counter to the outer circle in their own periods in accordance with the W. to E. revolution of the inner circle of the Other. Next were fashioned the fixed stars, which were distributed in various positions between the Equator and the Poles and were formed for the most part of fire. They are divine living beings (ἐξ Θεία, 40b) and each is spherical in shape and has two motions: a uniform axial rotation in the same spot, since this is the motion of reason and each star has a rational πολύτοις, and a uniform forward movement along with the diurnal circular revolution of the outer circle, the ἀπλανίς, so that unlike the planets, the stars constantly revolve in the same relative position (40 a,b.). Have the planets individual souls like the stars? This is the teaching of the "Epinomis" (983cf.), and is believed by Proclus to be the meaning in the "Timaeus". In the seven "intellectual souls" (νοεῖν πολύτοις), says Proclus, the Demiurge places seven σώματα, so that the planets have each a τάσσει, a πολύτοις, and a νός (Diehl III.59.27. cf.70.8, 71.5f., 72.4). It is common both to the fixed stars and to the planets to be ἐξ Θεία, and each has an ἑκά πολύτοις (III.116.30f., 127.27). Timaeus may only mean that the planets share the animation of the whole cosmic soul, but the expression he applies to them at 38c - ἰδοὺς εἰς πολύτοις σώματα διοίκησα ἡ τῆς ἐν θείᾳ - seems to support the view of Proclus (cf. Heath, "Aristarchus of Samos" p. 174).
The earth itself is "swinging on the path about the axis stretched through the universe" (ιιλομένη τήν περὶ τὸν διὰ πάντος πόλον πεπεμένων, 40b).

(This, the reading restored and printed by only one modern editor, Professor Burnet, seems to be indubitably the true one and should settle the old "vexata quaestio" as to whether the earth has an independent motion of its own or not. For ιιλομένη is attested by F, Aristotelie, Plutarch and Proclus. Proclus paraphrases the verb ιιλομένη with the words περὶ τὸν ἁφόνα τοῦ παντὸς συνέκτηται κεὶ συνφίγγεται (III. 156.31, σφιγγομένη κεὶ συνεχομένη, 152.6, 148.21, συναγομένη 151.14, συνεχομένη εν τῷ μέσῳ, 139.16, συνεκτηταί, 139.18, συνέκτηται κεὶ εν τῷ κέντρῳ συνεγγαγταῖ τοῦ παντοῦ, 139.19) - "congregated and compressed about the axis of the universe". He emphatically denies that the earth is spoken of as moved in the "Timaeus", simply because he wants to preserve parallelism with the doctrine of the "Phaedo" (109a), where the earth is described as immovable, and because no mention is made by Timaeus of an ἀποκατάστασις or περίοδος of the earth in his exposition of the planetary system (III.138.11). It is amusing to notice that he cites the view that the earth is in motion and not stationary as an instance of the soul's confusion when its two circles are upset (III.346.6). Plutarch also believes that the earth is unmoved in the "Timaeus"
(\textit{Platonicae Quaestiones}, Bernardakis 1006e 25f.). But at "de Caelo" 293\textsuperscript{b} 30f - 296\textsuperscript{a} 26 Aristotle twice illustrates Timaeus' meaning by means of the explicative phrase \textit{kai kineinai}, so that the word \textit{implatonyn} must connote motion; and since in the same passage Aristotle explicitly distinguishes the theory ascribed to Timaeus that the earth "goes to and fro" at the centre of the universe (a) from the Pythagorean view that the earth "revolves" round a central luminary and has a period of twenty-four hours, and also (b) from the view of \textit{pollo
\textsuperscript{e} teo} who apparently gave to the earth an orbital revolution, it is probable that, as Professor Taylor maintains, what Timaeus means is an oscillatory movement rather than a circular revolution. The movement which he has in mind seems to be a periodic slide or slip, rectilinear excursions in a plane along the axis of the universe, and possibly also, as Professor Taylor further suggests, this speculation is intended not only to account for some of the apparent "excursions in latitude" of the planets, but also to explain why there is not a total eclipse of the sun at every new moon, a problem which must have worried thinkers after the discovery of the true explanation of solar eclipses as due to the interposition of the moon. Timaeus' explanation of the paradox would be that the earth is "out of the centre", not "in line with" the moon and the sun. This interpretation of Timaeus' words obviates the difficulty suggested by Proclus - that
Timeaus does not speak of any ἀποκατάστασις or recurrent return of the earth, since the earth does not travel through the Zodiac like the rest of the planets.

To complete the perfection of the universe, there yet needed the creation of mortal kinds. The larger part of this task the Demiurge assigned to the stars, the "created gods" (Θεοὶ γεννητοὶ, 40d), the "young gods" (νεόι Θεοὶ, 42d), the highest order of living beings, who, though not "naturally" immortal and imperishable, cannot be dissolved "save by consent of" the Demiurge (41a), who will not destroy His own good handiwork (41b). 

\[ \text{Proclus puts it (III.210.20f), as \( μόνως \) λυώ (213.21), are created by \( \text{τὰ ἄλυτα πὴ καὶ λυώ πὴ} \) - the "young gods", whom Proclus also calls \( \text{οἱ ἐγκόσμιοι Θεοὶ} \) (194.20, 310.8). There surely seems to be a mistake in Diehl's arrangement of the bracketed clause \( \text{καὶ λυῶν ἄλλως πε' ἐτέρου καὶ τοῦτου} \) at III.211.12. Proclus distinguishes two kinds of ἄλυτον and two corresponding kinds of λυῶν- the simply (ἄλλως) ἄλυτον from itself and from other things, and the ἄλυτον in a certain respect (πῃ) from itself and from other things; and similarly, amongst λυώ, the πῃ λυῶν and the ἄλλως λυῶν in these twofold relations (διῆς, i.e. πε' ἐτέρου καὶ εαυτοῦ). The first - τὸ ἄλλως ἄλυτον - is the characteristic of νοῦτα, says Proclus, and the fourth - τὸ ἄλλως λυῶν - of θυτα. According to Diehl's arrangement τὸ τέταρτον is τὸ λυῶν πῃ,
whereas the whole point of Proclus' subsequent exposition is that τὸ λυτὸν πη, and, with it, τὸ ᾠλυτὸν πη, are the means or media (μέσα) between τὸ ἐπίλεις ᾠλυτὸν and τὸ ἐπίλεις λυτὸν, and as such are the attributes of οἱ ἐγκόσμιοι θεοί. cf. especially 216.8ff. and n.216.13 – τὸ δὲ μέσον ἐφήμορτο τοῖς ἐγκόσμιοι θεοῖς, and 218.17 – τὸ μὲν πρῶτον ἀθάνατον καὶ τὸ θυμὸν ἄλυτον; and with reference to οἱ ἐγκόσμιοι θεοί – cf. ᾠλυτὸς πη (211.21)…τὸ λυτὸν (23), λύσις πη αὐτῶν ἐστιν (213.13), ἀλυτὸν ἄλμα καὶ λυτὸν (213.17), ἀλυτοὺς ἄλμα καὶ λυτοῦ (215.10). Thus the right place for the bracketed clause in Diehl 211.12, as the context demands, seems to be at the end of the sentence after λυτὸν πη οἰκεῖος. Proclus makes the same point further on (233.6). Things that at some time exist are dependent on (ἀναγέννησα) eternal realities. For τὰ μὲν πρῶτα γεννητικά τῶν μέσων ἐστιν, ταῦτα δὲ τῶν τελευταίων (228.8 cf. 242.27 – μέσα δὲ τῶν τα πρῶτα ἀθανάτων καὶ τῶν θυμῶν τὰ ὡς πληρουμένα τῆς ἀνεγέννησα λύσα). Proclus' point is that the "young gods" are at once indissoluble and dissoluble. They are indissoluble because they are τὰ ἔγγα τοῦ πατέρου (211.21); they are dissoluble, not in the sense that they can be dissolved κατὰ κρένον, but in so far as they are composites of simple elements of which the Demiurge contains the form (λόγος, 211.23) and definite causes (σωφροσύνην κατὰ, 213.14, 218.26). Proclus' meaning is that because of νέοι θεοι are composites, they are "de
facto" dissoluble into their simple elements; but they never will be dissolved because they are ἐφ'α of the Demiurge, and, as Proclus elsewhere remarks (III.340.22), it is not the nature of that which unites to dissolve any more than it is the nature of cold to give heat or of good to work evil. At the same time, in his anxiety to give due dignity to θυ-κόσμιοι θεοί as members of the divine hierarchy, Proclus is at pains to show further that they are Ἀλυτοὶ παράκεκλητοι as well as διὰ τὴν τῶς δημιουργοῦ 

βούλησιν (III.211.21, 212.16, cf.214.35 - κατὰ τὴν αὐτῶν 

φύσιν ἀφθαρτα), in opposition to Severus, Atticus and Plutarch, who quite correctly understood Timaeus' meaning to be that the "young gods" are in their own nature dissoluble but are indissoluble by will of the Demiurge (212.7).

First of all, God Himself prepared "the most divine and most holy element" (τὸ θεότατον καὶ ἰεσώτατον, 45a) of the human soul, the "immortal ἰεσώτατον of a mortal creature" (42e, 69c), in the same cup in which he had before fashioned the soul of the world and from τῆς τῶν 

πρόσθεν ὑπόλοιπο (41a), the residue, that is, of the three ingredients left over after the construction of the cosmic soul, as Proclus says (III.357.3). He divided the substance thus formed into as many souls as there were stars and placed each soul in a star "as in a chariot" (41c). There he revealed to them all "the nature of the universe and its fated laws". (The reason for this is, as Proclus observes (III.202, 33-31), to ensure that the souls them-
solves, and not their Creator, shall be responsible for their misdeeds. We may here note a point of similarity with the myth of the "Phaedrus," where at 253a - 253b it is said, in the same spirit, that a man "lays hold of his own god with his memory," that is to say, directs his conduct by recollection and recognition of a moral law or standard which had been disclosed to his soul before its incarnation. cf. Ecclesiasticus XVII. 11-12: "Besides this he gave them knowledge, and the law of life for an heritage. He made an everlasting covenant with them, and showed them his judgements." At first all were to come into the world alike, as men, "that none may suffer handicap at God's hands" (41e). Whoever should overcome his lower nature "throughout his due term" should again return to a blessed existence in his star. But whoever should succumb to the allurements of sense should be born again in the form of a woman, and, in the case of continued wickedness, should sink ever lower by various transmigrations until final redemption is won by conquest of the distracting and contaminating impulses of earthly existence. Thus apprized of their destiny, the souls are then sown by God into the "instruments of time", the planets which they are to inhabit, for incorporation in human bodies. (N. (1) There is no justification whatever, as J. Cook Wilson has shown ("On the Interpretation of Plato's Timaeus", pp. 51-53), for Martin's and Archer-Hind's supposition that the souls set in the stars are large
portions of soul-substance "not as yet differentiated into particular souls" (Archer-Hind p.141 n.13), "vastes depots de substance incorporelle" (Martin, "Études" II. p 151). Timaeus distinctly says ἐνὲμεικτὴν πρὸς ἐκαστὸν (41d), i.e. while in the stars the souls are already differentiated and learn of their destined embodiment and are then shown into the various planets in which their embodiment is to take place. It is indeed hard to see how Archer-Hind can reconcile his own explanation of the assignment to the stars as intended to account for individual varieties of character with his other assumption that the souls thus assigned "are not particular souls nor aggregates of particular souls".

(2) The embodiment of souls, as both Plotinus ("Ennead" IV.8.1) and Proclus (III.325.14) notice, is in the "Timaeus" represented as the fulfilment of a cosmic law and as necessary to the perfection of the universe, and is not due, as in the "Phaedrus" (248c), to a self-caused decline on the part of the souls themselves. The teaching of the "Timaeus" is that the existence of ὀνητική is essential to the completion of the universe. Ὄτι ὀνητοῦ there must be, as Proclus says at III.222.3f., so that all things possible may exist and that there may be no lacuna between τὰ ὀντα ἀεὶ and τὸ μηδενὸς ὄν, and in order that the world may be an adequate copy of τὸ πνευματικὸν (cfIII.227.13). The addition of τὰ ὀνητική is in fact the consummation and crown (Τελείωσίς) of the world's constructive life (223.15). There are, he explains earlier (III.97.5f), three kinds of "wholeness" (Σύνθεσις) imparted by the
Demiurge to the universe. First of all, the Demiurge had made the world a δ'ων τεο των μερων when He created it a θ'ων εκμυθυν εννουντε. Then He had made it a δ'ων εκ των μερων when He gave αναλογια to the elements of the body of the universe and divided its soul into various parts. Now finally He makes the world a δ'ων εν τω μετερ by giving to it mortal kinds and all animals - his greatest δ'ων - and thus completing its ονοματωσις to τω παντελες δ'ων. Thus the universe is truly δ'ων εκ δ'ων.

The Demiurge then "withdrew to his rest" and left His lieutenants to complete what He had begun. "Everything subsequent to the sowing He delivered over to the young gods, to mould mortal bodies and, having fashioned all that remained of human soul needing yet to be added and everything adjunct to mortal bodies, to rule over the mortal creature and to pilot it as nobly and as perfectly as they could, without evil save what should befall it by its own fault" (42d,e). "Borrowing" from the universe fragments of the four elements, the minor deities built the human body and the "mortal species of soul", subdividing this inferior portion of soul further into a higher and a lower part. To the higher half belong courage (ανεσια) and mettle (Θυμος), to the lower the sensuous appetites (επιΘυμια). The first is planted in the breast within hearing of reason, the second is lodged below the midriff like an animal tied in a stall
with the stomach to serve as a manger and the liver as a "mirror" (κατόπτρον) reflecting the messages of the brain (69d-71a). The divine element which was the direct work of the Demiurge was assigned to the head, with the neck as an isthmus between it and the mortal soul.

At 47e the argument of Timaeus takes a new direction. "If any man would declare truly how the universe has come to be, he must include also the Errant Cause (ἡ πλανομένη ἀρτιά), so far as its nature admits" (48a). The "Errant Cause" or "Necessity" (ἀνάγκη), which we have so far neglected, now demands attention and its examination will entail "return upon our steps" (πάλιν ἀνακεραυνέω, 48b). Hitherto we have for the most part been discussing τὸ διὰ τὸν σύνθεμονεργήμα, the expression of rational plan, without much regard to τὸ διὰ ἀνάγκης, the subordinate mechanism which supplies the means of this expression. So far, therefore, it has been sufficient for our purpose to take for granted the Empedoclean quaternion of "roots", fire, air, water, earth, and to regard them, as Empedocles had done, as the ultimate constituents or "simples" of the world of sense. In point of fact, however, so far from being the simple ABC (στοιχεία) of the alphabet of the universe, they are more composite even than "syllables" (συλλαβαί). Instead of accepting them as unanalyzable "elements", we have now to go behind them to what is truly ultimate, and to begin from a fresh "starting-point" (ἀρχή, 48b) more
satisfactory and more scientific than our original distinction at 27d-28a between ὧν and γενόμενον, νομίσματι καὶ θεματί, the eternal and the transient.

Accordingly, we must now distinguish three "forms" (ἐπὶς, ἴδιον): the pattern (παράστημα), the copy (ἀποκόπτω), and the "repository" (ἐπικοπής) or "nurse" (παραγωγή) of becoming. The first is the πνευματική ἡμιορ, suprasensual and cognizable by thought; the second is the material order, created, destructible, and apprehended by "perceptual judgement". Both of these have already been discriminated. Our new factor is that wherein the cosmic process comes to pass, an everlasting receptacle which is itself without quality or configuration but is capable of receiving any determination from without just as a scentless oil takes on various perfumes. "It never anywhere or in any way assumes any of those shapes that enter into it" (50e). It is as it were the "mould" or "plasm" (ἐκμαγέρων) on which form is impressed. It is in fact "Room" or "Space" (Χώρα, τόπος, 52a), geometrical extension, "invisible and formless" (ἀνορθότος καὶ ἔμφορος, 51a). It is the spatial continuum or the volume in which the life and events of nature go on and receive contour, and as such it is too "dim and dark" (49a), too "hard to comprehend" (51a), to be anything more than an abstract logical concept, "accessible by a bastard sort of reasoning" (52b). We have thus three "Kinds" (γένεα, 50c): that which comes into being, that in which this comes into being, and that of which it is a natural copy.
The pattern plays the role of father, the ἐποδωξίς that of mother, and begotten of the two (ἵκνους) is the concrete physical world.

Anterior to the construction of the οὐρανός semblances of τὰ ἢνα ἂν had already begun to enter upon the ἐποδωξίς, but in such a way that it only showed rude "traces" (ἵκνη) of definite structure. "All things were without method or measure" (53a). God came and imparted order to the imbroglio. God "systematized the elements with forms and numbers" (53b), i.e. converted them into bodies definitely qualified and quantified. "We must conceive that the proportions of the elements in regard to their multitude and motions and the rest of their properties, when God had completed them in all these ways through precision, were then co-ordinated by Him in due ratio" (56c). God "introduced among them such measures of proportion and regularity as they would admit, each one in respect of itself and all in respect of one another (59b). "All these He ordered forth in the beginning, and out of them constructed this universe" (59b).

Now fire, air, water and earth are solid bodies, and every solid body is circumscribed by plane surfaces; every plane surface is composed of triangles; and the two primary triangles are the rectangular isosceles (the "half-square" of the Pythagoreans) and the rectangular scalene (the Pythagorean "half-triangle"). From the latter we get the equilateral triangle and thence the
three regular solids, tetrahedron (which is the elementary corpuscle of fire), octahedron (air) and icosahedron (water); from the former we get the square and then the cube (earth). In this way fire, air, and water are interchangeable with one another and so give rise to all the different varieties of body - ice, stone, alkali, and so on; earth, however, admits of no transmutation, because its framework is dependent on a different radical triangle (53c-56c). Thus we see that the shape and quality and variety of bodies are dependent in their last analysis on the geometrical structure of their elementary particles; each is in fact an example of the combination of the two Pythagorean factors, Limit (περίσσος) and Unlimited (ἀπειρον).

The remainder of Timaeus' discourse deals with the principles of physiology, pathology and psychophysics (69a-87b). The point throughout is to show that the various parts and functions of the human organism are contrived "for the best". Thus the lungs were devised to act as a cushion to soften the bounding and throbbing of the heart in time of excitement (70d); the winding of the intestines was meant to serve as a precaution against gluttony (73a); nails, though of little value to men, were given to them to afford a means of defence for the inferior animals into which they would degenerate (76d). Diseases of the body are explained as arising partly from disturbances in the normal relations subsisting between the four elements which make up the body's constitution, partly from disorders in
the ἄλλη πρός τις συστήσεις or secondary structures of the body, - blood, flesh, marrow, bone, sinew, and partly from the vicious humours which are various forms of "bile" (Χολή) and "phlegm" (φλέγμα), which again are simply unnatural conditions set up by decomposition (τυχασέων) of the flesh (31e-36a). Diseases of the soul are regarded as essentially pathological, arising in particular from the unhealthy secretions of bile and phlegm, and it is accordingly insisted that no one is willingly wicked (κακῶς ἐκατὸν οὖν ὅτε, 36a). Vice is simply an involuntary derangement produced by physical aberrations and aggravated by faulty training (37b). Hence proper education is indispensable to mental and moral health. The whole aim of life should be the preservation of proper balance or proportion (συμμετείχη) in the συμμφόπεν of soul and body by due exercise of both; the "mens sana in corpore sano" is Timaeus' ideal. Our greatest care, however, should be the soul, since it is to be "the guide" (τὸ πάθος ήν ἦν, 39α) of the body and contains in its highest part our "guardian spirit" (σωματόν, 90α, 90c) and our means of immortality.
CHAPTER IV.

THE DEMIURGE.

The central figure of Timaeus' discourse is the Demiurge or God, who seems to be described as what we would call a "personal" God. Is this what Timaeus means? The Greek language, of course, lacked a precise term connoting personality, but the absence of a definite terminology does not entitle us to assume that Greek thought had no idea of what the conception itself implies. What, for instance, was the command of the Delphic inscription, 
\[γνωθι σεαυτόν \]
"nosee teipsum", but an exhortation to man to realize his own identity and personality? (cf. Proclus, Diehl. III. 352. 19, where Proclus explains ἑ ΚΑΤΑΜΕΛΕΥΣΑΣ who according to Timaeus is condemned by his neglect to a life of intellectual lameness, as meaning ἑ ΛΤΕΥΣ ἘΚΕΠΟΣ ΓΝΩΣΙΝ). At 77b of our own dialogue Timaeus himself recognizes self-consciousness, when he observes that planets are distinguished from men in that they lack power "to observe and reflect upon their own nature". His language about the Demiurge shows that the conception of what we more or less mean by personality was clearly implicit in his mind. He calls Him "Father", "Maker and Father", "Father of the gods" - 27c, 28c, 37c, 41a. "God was good, and in what is good there can never be any grudging of anything. Wherefore, being altogether ungrudging, He
wished all things to come into being as like Himself as might be 
(29c). God "proceeded to abide in his accustomed nature" 
(ἔμενεν ἐν τῇ ἑαυτῷ κατὰ τρόπον ὢθεί, 42a). 
God "reflects" and "takes thought" (λογίσεται, λογισμο̂ς, 30a, 
30b, 33a, 34a; λόγος καὶ διανοία, 38c; ἐπινόησεν, ἐπινοεῖ, 
37c, 37d; διανοηθείς, 32a; νομίσας, 33b; γιγάντα, 33a; 
ζητο, 33d); He shows "forethought" (πρόνοια, 30b) and 
exercises "will" (32c, 41a, 41b); He "sees and rejoices" (37c); 
He speaks and commands (41a, 41c); He makes calculations (31b-
34a, 35b-36d, 38c-39c). Above all, He is explicitly said to 
have mind or understanding (νοο̂ς, 39c) and since also νοο̂ς 
cannot dwell in anything without φυλή (30b), the Demiurge 
must be a Soul. As such, He is the "best of the causes". "It 
was not nor is right for the best to do aught save what is 
most fair" (30a)—cf. Job XXXIV.10. "Far be it from God that He 
should do wickedness; and from the Almighty that He should 
committ iniquity" and James 1.17, "Every good gift and every 
perfect gift is from above, and cometh down from the Father of 
lights, with whom is no variableness, neither shadow of turning". 

Thus it is clear that the Demiurge of the "Timaeus" 
is no vague abstraction, but is a living rational Person who 
thinks, feels, and wills, a spiritual Being who is the supreme 
personification of intelligence and beneficence. 

Proclus (I.266.2lf) observes that of "the 
ancients" (ο ἀρχαῖοι) the Epicureans denied the existence
of any Demiurge of the world; the Stoics admitted a Demiurge but maintained that He is inseparable from matter (cf. I.414.1f - Chrysippus made God θεὸς ή διὸς θείου κομένων, inseparable from His subjects, and thus virtually confused material and immaterial); and the Peripatetics, while granting a separate cause, conceived of it as final and not efficient. The Pythagoreans and Plato, however, both affirmed a distinct efficient cause, the Demiurge. Proclus tries to justify this position by reference to Aristotle's own theory that God is the intellect which moves the world as the object of its love, on the ground that the world must obtain its being and an unlimited power of existence from the object of its desire as well as an unlimited power of motion. This seems to be a polemic on Proclus' part against the interpretation put on Aristotle's conception of God (with more justice to Aristotle's own words) by Alexander of Aphrodisias, as distinct from the view of Simplicius, adopted by the Neo-Platonists, that the God of Aristotle is in a real sense a producing as well as a final cause.

At I.305. 25f. Proclus, records the various interpretations of οἱ πρεσβύτεροι regarding the Demiurge. The expressions οἱ πρεσβύτεροι, οἱ παλαιότεροι, and οἱ παλαιοί are used by Proclus in a very fluid and indefinite way. οἱ πρεσβύτεροι and οἱ παλαιότεροι generally refer to the "Eclectic" Platonists and Neo-Platonists.
of the second, third, and fourth centuries - Atticus, Numenius, Plotinus, Porphyry, Iamblichus, Theodorus, as in the present passage and at, for instance, I.321.26 and III.103.17, while of παλαιόι seem to mean the earlier thinkers after Aristotle, as e.g. at I.266.21f. or even Aristotle himself, as at I.10.7, or his disciple Theophrastus, as at II.120.3. But the distinction is not by any means an exact one, for cf.I.310.3, where the later Platonists are also spoken of as of παλαιόι). Proclus tells us that
(1) Numenius thought there were three gods - Father, Maker, the World, thus distinguishing two Demiurges (cf.III.103.23); (2) Atticus identified the Demiurge with the Good; (3) Plotinus, like Numenius, also supposed that there were two Demiurges - the so-called "Maker and Father" of 28c and the Intellect of the World; (4) Amelius conceived of a triad of Demiurges - He that is, He that has and He that sees, or Being, Intelligible, and Intellectual (cf I.398.16 and III.103.13, and Plotinus "Ennead" II.9.6"; (5) Porphyry regarded the Demiurge not as νοητός but as a ψυχή which uses νοητός as pattern (cf.I.431.22 and II.99.30); (6) Iamblichus understood by the Demiurge the entire κόσμος νοητός or intelligible order; (7) Theodorus followed Amelius in assuming three Demiurges; (8) Syrianus regarded the Demiurge as an intellectual god as distinct from the intelligible and from the intelligible-intellectual gods. His particular function being the production of intellect, τὸ νοοποιοῦν. We may pass
upon all these speculations the judgement passed by Iamblichus on the interpretation of Amelius, that they are "too extravagant and far-fetched" (ἐξήγησις λίγον πειράτως διεσκευωμένη, Proclus I.298.27), but they at least serve to indicate the importance which the ἰδιοσχέδιος of the Timaeus assumed in the eyes of later expositors.
CHAPTER V.

The Relation of the Demiurge to the "Forms."

Now if the Demiurge is conceived by Timaeus not as an inanimate metaphysical entity, but as a consciously-working Person, it follows that we must not devitalize the concept or eviscerate it of all spiritual content by regarding the Demiurge as merely an allegorical personification of the ἐπίστολος τίμηθεος of "Republic" VI. As Proclus urges against Atticus' identification of the two, the Demiurge is only called "good" and not the Good (1.305.3) in the "Timaeus." Proclus returns to the point at 1.359.30 ff. It is ludicrous, he there says, to identify the Demiurge with the Good, since the Good and one who is good are not the same. Rather is goodness that which gives to every god existence qua god and determines his specific nature (361.6 ff), so that it is the goodness in vous which makes it "demiurgic." But the truest argument against the identification of the Demiurge of the "Timaeus" and the God of the "Republic" is that we have no right whatever to bind down Plato on a Procrustean bed and to try to square one dialogue with another in such a fashion.

Nor, again, may we identify the ἰδιοσύγος with the παρεδρύμα which is represented as directing His activity. There is, it is true, much in the language of Timaeus to suggest their identification. (1) It would appear at times that God in modelling the world after the νοητὸν ἄνω is simply contemplating His own nature.
With 30d, "unto that which is the fairest of things intelligible and altogether perfect did God wish to liken it", compare 29e, "God wished all things to become as like Himself as might be". (2) The παράστασις can never be "second with another" (31a) and is "all-perfect" (31b). Yet God is "the most perfect" (30a) and "the most excellent of natures intelligible and eternal" (37a). (3) The description of the παράστασις as "a living being which is eternally" (37c, cf. 31b) seems to imply that it is animated and is the source of life to all else. These and similar passages lead Archer-Hind to the summary conclusion that Plato "had reached a period in his metaphysic where he deliberately affirmed the identity of thought and its object" (p. 116n.) and that he presents to us in the Timaeus "a complete and coherent scheme of monistic idealism" (Introdc. p. 2). But, as we have seen, unless we are to denude the God of Timaeus of all personality, we can no more identify Him with the νομίζων Ὅμοιος than with the ἑιδος ταξιάθος.

To identify the νομίζων Ὅμοιος with the ἀντικείμενος is to return to the old fallacious view that the "Forms" are the ideal conception of the world formed in God's intellect - an interpretation which was adopted almost unanimously by the early Fathers of the Church. In the same way Philo conceived of the world as the outward and extrinsic expression of the Λόγος ἐνυσινθέντος or intrinsic aggregate of ἐνθα indwelling in the mind of God. Such a conceptualist view of the ἐνθα, however, is summarily
disposed of at "Parmenides" 132 b.c. on the ground that every "thought" is an act or process about a corresponding object. The same thought, that every mental activity must have an object distinct from itself, appears as early as "Charmides" 157 and is used to dismiss Critias' conception of ὁρθοσώψις as the "Knowing which knows itself". Further, Aristotle through the whole of his critique never once regards the ἐἶδος as subjective products of the mind of the knower. Above all, Timaeus at 51-52 definitely affirms the independent and absolute existence of the ἐἶδος in much the same language as we find in the "Phaedo" and the "Republic". Are the objects of sense, Timaeus there asks, to be regarded as the only realities, and is the supposition of an ἐἴδος ἐκάστου νοητόν after all mere talk (Λόγος, 51c)? In defence of the reality and independence of the "Forms" he advances what Aristotle calls "the argument from the side of knowledge" (οἱ Λόγοι οἱ ἐκ τῶν ἐπιστημών), the point of which is to show that "objective reference" is the necessary condition of science. The material object can be no more than a matter of perception and opinion. The "Form" alone is always true. This conviction that there really is such as thing as valid and irrefragable knowledge about a stable and invariable object and that this object cannot be sensible existence with its lack of permanence and self-consistency, is the fundamental assumption on which the whole theory of "Forms" is built. The argument means that the "Forms" must be objective entities. But such objectivity does not mean
that the \( \text{ε} \) are as it were quasi-concrete "things" existing in some isolated supra-cosmic "intelligible world". There is no doubt that, as Lotze seems to have been the first to insist, the thought at the bottom of the theory of "Forms" is the a priori "validity" or "timelessness" attaching to universal and eternal truths and laws (cf. Milhaud, "Des Philosophes - Géomètres de la Grèce - Platon et ses prédecesseurs" 327 ff).

It is clear, then, that in virtue of this independent character, the \( \text{ε} \), though known by God, do not depend for their existence on His thought about them and cannot be simply subjective states of His consciousness or creations of His intelligence. They are fixed and eternal truths, and so God thinks of them as they are and acts in accordance with them. (cf. Euthyphro 3-10, \( \text{τὸ δὲ ἐθικὸν} \) is "that which the gods approve", i.e. an act is antecedently religious, good or bad "by nature", and is approved by the gods for that reason. The ethical corollary of the whole theory, of course, is that there really is an "eternal and immutable "morality independent of individual and subjective judgement, that moral "values" are what they are once for all and always and constitute the only true and valid ethical standard. "

The "Forms", we may say, are the immutable "values" which God "perceives" (\( \text{καθορέω} \), 39e) and whose direction He follows. The "Forms" and Mind are both distinct and yet, as intelligible object and conscious
subject, they are essentially related (the thought established at "Parmenides" 132). Mind and Truth are co-eternal, two interdependent yet equally primordial uncaused principles. The Forms are the "causa exemplaris" whose perfection inspires God, the "causa efficientis", in the ordering of the universe. { We may note that in Republic VI the τεωός τηρεοοος is exhibited rather as the teleological than the efficient cause - cf. Rep. VI. 597b. } Proclus keeps the Good or the final cause and the αριστεία τον άνθοον, the form of organism, or the formal cause, definitely distinct. νεοος, he says (I. 361. 16f.), produces at once from the pattern, with reference to ( τεωός ) which it makes, and from goodness, on account of ( διοι ) which it makes. He quotes the simile of Atticus (366. 9), that, as the carpenter makes all his productions of wood, but according to different "forms" or "proportions" ( λογοοο ) makes one thing a bench, another a bed, and so on, so God makes all things good, but gives them distinction by using the "archetypal causes"! Actually, however, the formal and the final cause coalesce in the "Timaeus" as in Aristotle's metaphysic. The νομοοοον άνθοοον is not only the form of organism but also, as the παραήθημα, in the goal of the Demiurge's activity and of the world's development.

The relation of the σύμμοονενόοοσ to the παραήθημα is fully discussed by Proclus (I. 319. 26f.). The world, it has been shown, is γενοήτοοον, and as such it must have a Demiurge or Artificer. Now every artificer whose work is
properly arranged must apprehend the form (λόγος) or arrangement (τάξις) of the thing he produces. Hence it follows that there must be a pattern or υπόμονον παράδειγματικόν as well as an agent. What then is the precise relation of this pattern to the Demiurge? There are three possibilities: it may be primarily existent in the Demiurge himself, or it may be subordinate to Him; or finally it may be antecedent to Him. Thus of οἱ παράδειγμα, Plotinus favoured the first hypothesis, Longinus the second, and Porphyry the third.

Now (1) if the Demiurge is Himself the primary possessor of the παράδειγμα, He is in effect intelligible and not intellectual; (2) if the pattern is posterior to Him, He will be making something inferior the object of His thought, and this is inconsistent with His divinity. It follows then that the παράδειγμα must be antecedent to the Demiurge (3.3.10) and as such is "seen" or contemplated by Him. But this cannot mean that the παράδειγμα is external to the Demiurge, else His contemplation will be an operation of sense and not of intelligence. It follows therefore that the pattern contemplated by the Demiurge is also in Him; so that it is both antecedent to and contained in the Demiurge - antecedent to Him intelligibly, in Him intellectually (νοεῖς πρὸς αὐτός, νοεῖς ὡς ἐν αὐτῷ, 323.21). This is confirmed by the fact that the expressions used in the "Timaeus" seem at different times both to distinguish the Demiurge and His pattern and to identify them. Thus in a certain sense it is right to say with Iamblichus that the Demiurge contains the παράδειγμα in
Himself, or, with Amelius, that the \( \pi\alpha\rho\acute{\epsilon}\delta\gamma\varepsilon\nu\gamma\alpha \) is the Demiurge (336.17).

Proclus returns to the question at I.431.14f. Atticus, he records, supposed that the Demiurge is superior to the \( \nu\gamma\omicron\tau\omicron\nu \) \( \zeta\alpha\omicron\nu \); Porphyry conceived of Him as inferior; Iamblichus struck a middle course by uniting Demiurge and \( \pi\alpha\rho\acute{\epsilon}\delta\gamma\varepsilon\nu\gamma\alpha \) as two interdependent correlatives, intellect and intelligible; and Amelius identified the two. Proclus repeats his own view that the \( \pi\alpha\rho\acute{\epsilon}\delta\gamma\varepsilon\nu\gamma\alpha \), while antecedent to the Demiurge, yet subsists in Him; so that in making the world after the image of the \( \pi\alpha\rho\acute{\epsilon}\delta\gamma\varepsilon\nu\gamma\alpha \), the Demiurge also makes it after the image of Himself (438.15), cf. II.110. 29 -II.11.19.

Proclus tries to put the distinction in yet another way at III. 100.4f. The \( \nu\gamma\omicron\tau\omicron\nu \) \( \zeta\alpha\omicron\nu \) is \( \nu\omicron\upsilon\sigma\varsigma \) \( \nu\omicron\upsilon\rho\omicron\sigma\varsigma \), while the \( \delta\mu\sigma\omicron\upsilon\epsilon\gamma\omicron\varsigma \) is \( \nu\omicron\epsilon\rho\omicron\varsigma \) \( \nu\omicron\upsilon\sigma\varsigma \), whose \( \nu\omicron\epsilon\rho\omicron\varsigma \) or thinking consists in seeing (\( \delta\varphi\alpha\sigma\varsigma \)) - i.e. contemplation of the intelligible. But, he insists again, this does not mean that the Demiurge looks to what is external to Him (\( \tau\omicron \) \( \varepsilon\varphi\omicron \), 102.5). He beholds \( \delta \) \( \kappa\omicron\omicron\omicron\omicron\omicron \) \( \nu\omicron\epsilon\rho\omicron\varsigma \) by conceiving or thinking of Himself (\( \varepsilon\alpha\omicron\tau\omicron\nu \) \( \nu\omicron\upsilon\sigma\varsigma \)). By making the \( \nu\gamma\omicron\tau\omicron\nu \) \( \zeta\alpha\omicron\nu \) distinct from the \( \delta\mu\sigma\omicron\upsilon\epsilon\gamma\omicron\varsigma \) we do not make \( \tau\omicron \) \( \nu\gamma\omicron\tau\omicron\nu \) external to \( \nu\omicron\upsilon\sigma\varsigma \); we simply mean that \( \tau\omicron \) \( \delta\epsilon\mu\omicron\nu \) \( \omicron\sigma\omicron\nu \) is antecedent to \( \delta \) \( \epsilon\rho\omicron\varsigma \) (102.29).

The point Proclus is trying to labour throughout is that logically the \( \pi\alpha\rho\acute{\epsilon}\delta\gamma\varepsilon\nu\gamma\alpha \) is prior to the \( \delta\mu\sigma\omicron\upsilon\epsilon\gamma\omicron\varsigma \), and yet at the same time is in Him, since He has not to look beyond Himself to contemplate it. - \( \tau\omicron \) \( \omicron\omicron\omicron\omicron \)
Augustine's doctrine that as contemplating the Word, God is the Father, as contemplated by Himself, He is the Son.

Proclus is quite rightly trying to insist that the Demiurge as Intellect or Intelligence and the ἰδέα as Intelligible are essentially correlated and that the ἰδέα are not "things" existing outside of the Demiurge but are antecedent and immutable "values" which it is proper to God to contemplate. Plotinus makes the same point at Ennead III. 9.1. The Intellectual Principle, he there says, stands as Intellectual Principle to that which it contemplates. It is the Intellectual Principle in virtue of having that intellect.
CHAPTER VI.

THE ERRANT CAUSE.

God, then, is regarded in the "Timaeus" as a living, self-conscious Person or Being, thinking, choosing, deciding, planning and acting. He is, further, intimately related to the Ἐὑρήσεις which make up the content of the νοοῦν in that they are the proper object, though not the product, of His thought. But "the creation of this world," says Timaeus at 47c, "was a mixed one, and arose from a concurrence of Necessity and Mind." So again at 68e we are warned to differentiate between two "species of cause" - the necessary (τὸ ἀναγκαῖον) and the divine (τὸ Θεὸν). What, then, is this further factor? Have we in "Necessity" (ἀνάγκη) another equally independent principle side by side with Mind or God?

Now throughout his discourse Timaeus seems to represent the Demiurge as a "finite God," or at least as unable to do all He would like. Qualifying phrases are continually used in the description of His activity. God, we are told, wished to communicate His own likeness to all things as far as possible (ὅτι μοιάσας, 29e); He desired that there should be no evil as far as might be (κατὰ δύναμιν, 30a); He sought to make the product of his workmanship as beautiful and as good as possible (ὅτι καλλιστὸν ἔργον ἔργον πε, 30b); He wanted to assimilate the universe most nearly (μοιάσας) to the fairest and best.
He intended the universe to be as far as possible (δὴ μέλιστα) a perfect living creature (32d); it was His aim to work out "the best" as far as possible (κετὰ τὸ συναίτον, 46c); He formed the elements to be as fair and as good as possible (ὡς καλίστα ὑμιστα τῷ, 53b); He introduced measure among the elements in as many kinds and ways as they could admit measure (συμμετρία, δύναται ὑπὸ συναίτων ἢ, 69b). In the same spirit Timeaus Teaches at 42a that individual souls are "of necessity" (ὡς ἄνγγυς) implanted in bodily forms and that it is "necessary" (ἀναγκαῖον) that they should all have sensation. So at 69c-d the mortal soul is spoken of as bearing "dread and necessary passions" which the junior deities "necessarily" blended with sensation. At 46d-e a sharp distinction is drawn between those causes which "have understanding and are producers of things fair and good" and those again which "are devoid of wisdom" and produce on each occasion hazard and disorderly effects". At 48a "Necessity is definitely called "the Errant Cause" (ἢ πνευματικὸς αἵτις) which Mind cannot coerce but can only "persuade to direct most things (τὸ πλὴστα) created to the best issue". The same thought is repeated at 56c: God made the world perfect "only in so far as the nature of Necessity, rendered willing by persuasion, allowed". In this capacity Necessity stands particularly for all the ancillary or concomitant causes (συμβάλλει, 46c, συμμετέχει, 46c, αἵτις ἐπηρεατοῦσα, 68c) which God has to use for His intelligent purposes.

The whole of this account of "Necessity" or the "Errant Cause" does seem "prima facie" to imply a
dualistic position like the Zoroastrian and Manichaean conflict between Ormuzd, the god of light, and Ahriman, the god of darkness. "Necessity" appears to represent a second agency external and antithetic to νοῦς, a blind erratic force which hampers or frustrates God's intelligent design but which up to a certain point He is able to regularize. This was the interpretation put upon Timaeus' language by Plutarch (c.100 A.D), who extracted from the teaching of "Laws" X.395d. that ψυχή is τὸν τοῦ ἀγαθοῦ αἰτία καὶ τὸν κακὸν, the cause of all things, whether good or bad, the theory of an evil world-soul (ψυχή ἀγαθικός καὶ κακοποιός) and identified it with the ἀνάγκη of the "Timaeus" ("de Animae Procreatione" 1014e). The assumption is that there is always a certain refractory medium of ἀνάγκη which God cannot wholly regulate and which will not submit to fixity and adjustment, and that from this intractable residuum arise the imperfections and disorder of the physical world. Plotinus similarly understands by ἀνάγκη the "principle of evil" ("Ennead" I.8.7, III.2.2), but, whereas Plutarch makes ἀνάγκη a third ἀρχή, intermediate between God and "Matter" ("de Animae Proc." 1010a- b), Plotinus definitely identifies it with "Matter" ("Ennead" III.2.2).

But such a conception of "the Errant Cause" as something independent of and antagonistic to God and as consequently the cause of evil is quite incompatible with the emphasis on God's omnipotence at 32c, 41a, 43d, and 68d. Mind alone is responsible for the present order of the universe. Soul is regarded as the prīmus of everything else in the
"Timaeus" as much as in "Laws" X (cf."Timaeus", 54d). Proclus certainly had no sympathy with such a notion of ἀνάγκη as an independent evil force limiting the authority and beneficence of the Demiurge, as is clear from scattered references through his Commentary on the dialogue. We may note, first of all, what he has to say in his interesting analysis of the problem of evil at I.372.19f. Anticipating the Hegelian conception that the world is as essential to God as God is to the world, Proclus declares that τὸ γεννάμενον is the indispensable condition or sine qua non of divine nature, since without τὸ γεννάμενον, thing begotten, that which begets (τὸ γεννᾶν) cannot show its superiority. Does then the necessity of γένεσις carry with it the necessity of evil? If the Demiurge wished all things to be good, what is the explanation of evil? Proclus' answer is that God's relation to things is different from ours, and that the relation of wholes to parts is different from that of parts to each other. Consequently what is evil to a part is to the universe as a whole good, and therefore to God nothing is evil (cf.I.125.21 and III.308.13f). There is no such thing as absolute evil (τὸ κύρο κακόν), for evil is everywhere bound up with what is good (τὸ ἐκ θέλει συμπεπληγμένον, I.374.21). In the case of bodies (parts moved "ab extra"), for instance, disease and destruction are unnatural and evil to a particular body but are good to the wholeness of bodies, inasmuch as corruption and consequent transmutation are necessary for the life and preservation of the universe as a whole (on
the principle that έλλα θεον εὐνοεῖ έλλα φθορά ἀτων, έκά έλλα θεον εὐνοεῖ έλλα-1.376.31f., 379.11f. cf.11.26.19, 37.22, 89.19, III.43.25, 318.19, 352.24). So again in the case of souls (parts moved "ab intra"), a voluntary deed or action corresponds in quality to the antecedent choice (αιτεῖται), and though without qualification (δὲ θεῖε) an evil deed is evil, yet the sequence of evil action upon evil choice is the just embodiment of a law of nature (κατὰ δικήν), and as such it is good (1. 377.9f.). Proclus concludes therefore that evil is necessary for the perfection of wholes, and that all things are good by the will of God (381.3). He does not attribute evil to ἀνάγκη. Similarly at III.313.13f. he insists that, though the junior gods, οἱ δεύτεροι δημιουργοί are by delegation the fabricators of τὰ μετακέφαλα as distinct from τὰ υἱακά and though evil only affects μετακέφαλα, yet they are not to be regarded as responsible for evil any more than εἶναι τῶν υἱακών δημιουργοί. Proclus is emphatic on this point - οὐ τοῦ ἑαυτοῦ τοῦ θεοῦ ἀνενεκτέον τὸ κεκόν (303.9), οὐδὲν κακὸν οὐδὲ παρὰ βοῶν ἀπὸ τῶν συνενεκτέων γίγνεται θεῶν (313.4). Accordingly he will not countenance any distinction between one god who is beneficent (δημιουργός) and another who is malignant (κακόποιός, 313.15). The gods are all-good, all-perfect, and all-powerful, so that, as he asserts earlier (III.303.15f.), if evil exists, it does not exist in an antecedent way (κατὰ προγονομένην ἐπόπτεσιν, 303.16), but is adventitious (ἐπιτευχομένως, 22). The Demiurge for Proclus is without any limitation. Thus at I.381.18, in
commenting on the words "God wished that all things should be good and that there should be nothing evil as far as possible" (30a), Proclus denies that the expression "as far as possible" (κατὰ δύναμιν) connotes any imperfection (δυνάμεις δύναμις) on God's part; at II.55.14, he insists that impotence (ἀδύναμος) is foreign to the Demiurge; at III.7, 21-25, he declares that God's beneficence (ὁσιός) is always invariable and unimpeded, though we ourselves may not be fit to receive it; and at III.213.3, he repudiates any separation of the Demiurge's δύναμις from His δύναμις (cf.214.15, τὰς δύναμες βιβλίσαν τὸν ἀκμουγγένον;).

The real significance of ἀνάγκη, as Professor Taylor has demonstrated, is closely connected with Timaeus' initial distinction at 29.β.ε. between "Knowledge" (ἐπιστήμη) and "belief" (πίστις) and their corresponding objects, οὐσία and γένεσις. Timaeus there refuses to claim for his account of the structure of the cosmos anything more than "vraisemblance". He admits that it is only an approximate or "probable" attempt at explanation. For knowledge final and incontrovertible applies only to objects that are correlatively stable and invariable; "exact science" is only attainable about that which "is" always, about the "Forms" and the numbers and figures of pure mathematics.

Cosmology, however, deals directly with that which "never is, but is always becoming"; it studies not ὁσιός ὁσία but γενόμενα, things perpetually subject to variation and succession in time and place. The "laws" of natural science
can consequently never reach absolute precision but must always be suppositional. They can never be anything more than provisional hypotheses which the true "critical" philosopher must be prepared to revise or even to reject should he find that they fail to do justice to the phenomena which they seek to explain. The true philosopher must always be ready to examine and "give an account of" the postulates on which his deductions are based, just as Timaeus himself at 51b f. calls into question and formally justifies his preliminary assumption of ὀτὸν ἄνω and ὅπως ἔγραμμεν ἄνω laid down at 27d. - as Proclus points out at I.237.7.

Thus science can never completely "explain" the sensible world and the facts given in experience. If it could, all the "laws of nature" would be revealed as "causes concomitantes" or expressions of ὑπαρξις, the "Causa principalis". As it is, the world of experience displays much that seems contingent and incalculable, and it is this apparent element of casualty and indetermination that Timaeus means by the "Errant Cause" or "Necessity". The "Errant Cause" stands for all the unexplained "datum" in the present order of things. Such datum there must always be, because the physical world is ὅπως ἔγραμμεν and not ὀτὸ ἄνω and is only a "copy", not a reduplication of its eternal and self-same original. It is only "like God as far as possible". This, as Plotinus says ("Ennead" II.9.8), is its very nature; the world cannot be anything more than a symbol or replica, else there will be no distinction between it and God.
At the same time, though nature can never be rationally explained and co-ordinated in every detail, that is still the ideal of positive science. Though cosmology can never be an "exact science", it should be our aim to convert it as far as possible into "exact science" by following the latter's method. The only true way of trying to reach a rational and scientific understanding of this spatio-temporal universe is by an explanation of it in terms of mathematical physics. -on the general principle that \( \theta e o s \ a d i \ \gamma e w m e t e r e f \).

Such a geometrical science of nature is undertaken by Timaeus at 48c-61c, where he seriously tries to explain the total physical fact as resolvable ultimately into mathematical formulae by a molecular analysis of the four "elements", though he takes care to insist that such an attempt is itself only a tentative \( e i k e s \ \lambda \gamma o s \) (53d, cf. 48d). None the less it is a genuine endeavour to reduce physics to applied geometry, and Aristotle was quite right in taking this account of the derivation of the elements literally (cf. "de Caelo" III.298b.33f., "de Gen.et.Gorr".I.315b.30). The same doctrine, that solids can be built out of mathematical \( \epsilon p \pi \pi \varepsilon v a \) was in fact held in the Academy after Plato (Aristotle, "Met." 992a.10-23). Proclus gets the whole point of Timaeus' geometrical analysis of the \( \sigma t o k e f a \) quite clearly at I.342. 18f. He there insists that, though only \( \epsilon \rho \kappa \sigma \tau o \lambda o s \lambda o s \), the "myth" of the "Timaeus" is not a "myth" in the sense of being mere guess-work. Conjecture (\( \tau o \ \epsilon i k a s f e i n \)) and likeness or assimilation (\( \tau o \ \epsilon o i k e f a i k e f a i k e f a r \)) are two distinct things: the
former belongs to objects which, though copies, are not
copies of the intelligible but of the sensible, whereas
the latter applies to ἐικόνες τοῦ ὑμν. For the one
we have ἐκκαστικοὶ λόγοι (conjectural), for the other
ἐικόνες λόγοι (likely). Timaeus is dealing with τὸ ἑρμ
τῆς πᾶσς, not τὸ κατὰ τέλην. And we have to be
satisfied with approximation (τὸ σύνεγγυς, 349.9, τὸ ἐκτὶ
τὸ πολὺ, 352.2, τὸ ἐγγυς 536.6) in such an account (1)
because the material is in a constant state of instability,
and (2) because whatever exactness astronomy and physical
speculation possess come only from the amount of geometrical
proof they use, since geometry is a science of intelligibles
and universals (346.20f. cf. Xenocrates on ζωτροπολογία in
Ritter and Preller 282). Timaeus, Proclus points out (351.3-
253.4) gives us a double reason for the difficulty or
impossibility of accuracy in physical speculation - (1) the
nature of the objects discussed, since material things do not
admit of scientific and irrefutable exposition, and (2) our
own impotence (ἀσύνεξη) or weakness (ἀθέχωρε) as finite
human beings who have for the most part to employ sensation
and empirical aids.

Lotze at the conclusion of Book III of the
"Mikrokosmos" writes: "The whole sum of nature can be nothing
else than the condition for the realization of the Good...
But this decided conviction indicates only an ultimate and
farthest goal that may give our thoughts their direction:
it does not indicate knowledge that deserves the name of
science, in the sense, namely, that it can be formulated in a demonstrable doctrine. To our human reason a chasm that cannot be filled, or at least that has never yet been filled, divides the world of values from the world of forms."

Substituting "word" "facts" for the word "forms", we may say what Timaeus seeks to do is to bridge the "chasm" between the world of "values" and the world of "facts" by the application of mathematics to physics. The more we understand the natural world in terms of mathematics, the more we shall clarify it of the irrational, ἀνάγκη. We shall see more and more clearly that, in the words of Leibnitz, "causa efficientes pendent a finalibus", that mechanism is not the true cause of things but merely fulfills what Timaeus calls the office of "underling" or "understrapper" (ὑπερτίμησις, 46e, ἄναγκῃ ὑπερτίμησι, 68c, for which meaning cf. Sthephyr 13a-d, where "service of the gods" is shown to be simply a form of ὑπερτήσις, the art of "co-operating as a subordinate with a superior" for the achievement of a πάνταλον ἔτεον). In this way physical science will virtually consist in an increasing and progressive revelation of the goodness of God. The more we see the facts of nature, not as mere contingent and unexplained "data", but as necessary and integral parts of a uniform and intelligible system, the more shall we view the world and the "art of world-making" in the light of τὸ ἀγαθὸν, and the more shall we learn of "the depth of the riches both of the wisdom and knowledge of God".
Such a mathematical interpretation of physical reality was clearly an ideal of Plato himself. It explains the inscription reputed to have been put over the gate of the Academy, Αγεμιθρητος μη ειδός, as well as the charge said to have been laid against Plato by his opponents, that he καταμαθηματικόν την φύσιν. Now it seems clear that the starting-point of the distinctive περιμετρία which Aristotle ascribes to Plato in the "Metaphysics", the analysis of the "Forms" into the One and the "Indefinite Duality", was the demand for a definition of "irrationals" or "incommensurables".

It seems, further, that, as H. Stenzel and Professor Taylor maintain (see chapter on "Plato in the Academy" in A.E. Taylor's "Plato: The Man and His Work"), in his conception of the δόξητος θεὸς Plato was thinking of the formation of successive "convergents" to an endless "continued fraction" and that he had in mind the problem of obtaining a series of ever closer approximations to the precise definition of quadratic and cubic surds. If this is true, then clearly the underlying thought is closely connected with that which guides Timaeus' treatment of οὐς. It is the "surd" or "incommensurable" in nature that Timaeus personifies in οὐς and it is just the partial "rationalization" of such a "surd" that he attempts tentatively to make in the elaborate mathematical - physical scheme which he offers at 43cf.
CHAPTER VII.

THE SOUL OF THE WORLD.

Timaeus' account of the formation of the cosmic soul presents perhaps the greatest "crux criticorum" of the dialogue. The account is contained at 53aff., and is important enough to be quoted "in extenso". The text followed is that of Burnet. Ὠς ἀμερίστου κεῖ 

do ἐκτὰ πεῦτα ὑψόσας οὐσίας καὶ τῆς ἃς ἐν πεῖ τὰ σώματα γραμμένης μερίσθης πρῶτον ἐκ τοῦ ἀμβλου ὑπὸν ἐν μέσῳ συνεκτῆσατο οὐσίας ἐκεῖνος, τῆς τοῦ πεῦτος φύσεως [καὶ πέτει] καὶ τῆς τοῦ ἐκτέου, καὶ κατὰ πητά (v. c. πεῦτα) συνέστησαν ἐν μέσῳ τοῦ τοῦ ἀμβλου ὑπὸν καὶ τοῦ κατὰ τὰ σώματα μερίσθην. Καὶ τρεῖς ἀδέσποτα ὑπὸ τῆς συνεκτῆσσατο εἰς μίαν πάντα ὅπαν, τὴν ἐκτέου φύσιν σύσμεικτον ὁδόν εἰς πεῦτον συνασκοῦτον διὸ. μεγίστω δὲ μετὰ τῆς οὐσίας καὶ εἰκ τρεῖς ποιησόμενοι ἐν, πάλιν ὅπαν τοῦτο μοίρας ὑπὸς προσόκει σπέρμαν, έκαστον δὲ εἰκ τὸ πεῦτο τοῦ βαθέους καὶ τῆς οὐσίας μεταγένην. 

Difficulties of interpretation are here aggravated by difficulties of text. The two words ὧς τοῦ πεῦτος φύσεως are indubitably a spurious interpolation repeated from the preceding clause; while the whole context favours the similar rejection of the manuscript τκντικ for Burnet's reading τκντια. The chief problem of the Greek is the construction of the genitives in the paragraph. Now the first two genitives, τῆς ἀμερίστου οὐσίας καὶ τῆς
meisth's, are clearly dependent primarily on e'n mësú; the phrase e'f òmpóin also refers to these two genitives but as it stands it seems best regarded as lending idiom to τείτον - "a third out of both". The third genitive ὁσία is of course a simple genitive of material after eidos. The other pair of genitives, τῆς τοῦ παύτου φύσεως καὶ τῆς τοῦ ἐτέρου, are also to be construed with e'n mësú in apposition to the first two, so that the two pairs become identical in meaning. Even if we take τῆς ἀμεριστῆς ὁσίας καὶ τῆς μεριστῆς with e'f òmpóin and τῆς τοῦ παύτου φύσεως καὶ τῆς τοῦ ἐτέρου with e'n mësú, as Archer-Hind does, it will be hard to see how God can make the τείτον ὁσίας ἐφίδιος intermediate between the Same and the Other by compounding it out of the Undivided and the Divided, except on the supposition that both stand for the same pair of categories. Or, again, if we take τῆς ἀμεριστῆς κ.τ.λ. with e'n mësú and construe τῆς τοῦ παύτου κ.τ.λ. with e'f òmpóin, the Undivided and the Divided will play no part in the chemistry at all. Zeller ("Plato and the Oldier Academy", chapter on "Physics") would refuse to reject both the words ex πέρι after τῆς τοῦ παύτου φύσεως but would retain e'g, taking both e'f òmpóin and e'n mësú with all four genitives, and we are accordingly to understand that God first blended the ἀμεριστὸν and the μεριστὸν into a third intermediate ὁσία, and then did the same again (ex) with παύτων and ἐτέρων. But what, on this construction, will be the three materials (τείτον ἀμβοῦ,
of the next mixture? We have already been given two compound substances. What is the third ingredient? Apart, however, from textual details, the identity of ἀμφιστῶν and μειστῶν with ταῦτα and θάτερον is asserted plainly enough at 37a, where it is said that, since the soul is blended of the Same and the Other, it can, when it "revolves upon itself", meet and respond to ὀσία ἀμφιστῶν and ὀσία θάτερον and their various relations external to itself (where note also the words ἐκ τῆς ταυτῆς καὶ τῆς θατέρου φύσεως ἐκ τῶν ὀσίων τριῶν τούτων συγκεκριθένθα μοίρας, with which cf. τείχα λαβέντα at 35a.6).

The translation of the whole passage, then, stands thus: "Intermediate between the undivided and ever self-identical being and that which is divided about bodies and becomes, God compounded a third form of being out of both, intermediate between the nature both of the Same and of the Other, and by the same means He composed it intermediate between the undivided and that which can be divided. And He took them, three in number, and blended them all into a unity. He constrained the nature of the Other, in spite of its reluctance, to unite with the Same, and, having mixed them with the other being, out of the three He produced one. This whole He next divided into as many portions as was right, and each portion was compounded of the Same, of the Other, and of the third substance". Accepting the ἀμφιστῶν and μειστῶν and the ταῦτα and θάτερον as signifying...
one and the same pair of "opposites", we can see clearly enough what the Demiurge is represented as doing. He first took parts of the two "opposites", the Undivided and the Divided, or the Same and the Other, and fused them into a third intermediate οὐσία. This compound He again blended with the ingredients of the first mixture, and then divided the final product into portions according to the intervals of a melodic progression and split it into two great circles.

At "de Anima" 406b.25f. Aristotle treats this account of the creation of the soul of the ὀξεανίς strictly "au pied de la lettre" and criticizes it accordingly. He takes it to mean that the soul is a "magnitude" (μέγεθος) and from this standpoint he objects that, if the soul is a magnitude, it cannot think, and that Plato makes the soul a revolving circle and identifies the circle's revolution with the soul's thinking, thus making thought an endless process or cycle, whereas processes have "limits" (περίτεχνα). Other strictures which he passes are that no teleological explanation of the soul's circular motion is offered by demonstrating that it is θέλημα, and that the whole speculation ignores the intimate relation (κοινωνία) subsisting between soul and body. This last is clearly the chief objection which Aristotle wishes to make. He finds nothing in the Ψυχομονία of the "Timaeus" to substantiate his own theory of the soul as the ἐν τελεκτέα or "actual realization" of a "natural organic body", and all his
criticisms are designed to lead up to the main objection, viz., that the account does not explain the dependence of a particular soul upon a particular body, and that, instead of attempting to show whether there is any organic relation between soul and body or not, talks "as if it were possible for any soul taken at random, according to the Pythagorean stories, to pass into any body".

Thus Aristotle's criticisms are not altogether disinterested. They are obviously an unjust "tour de force". For we must remember that the speaker is a fifth-century Pythagorean who, faced with the difficulty of expressing non-sensuous thought by means of a language as yet inadequate for such a purpose, would have spoken much as he is made to speak. Similarly Theophrastus' criticism, mentioned by Proclus at II. 120.7f., that it is illegitimate to inquire into the cause of what is an ultimate and always to investigate "the why" (τὸ γάρ τι) in natural science, was also founded on a misunderstanding. For Timaeus, as Proclus replies, is treating of the soul of the world not particularly as a physical, but more widely as a philosophical entity. From this point of view, it is not a "first principle" (Proclus II.123.1,13) but is a derivative, and it is therefore quite properly described as begotten ἀπὸ πατρίδος ἀγαθῶν. Accordingly, Proclus himself agrees with most of the exegetes in refusing to accept the literal statement of Timaeus and in treating the whole account as figurative. He regards the account as a kind of
anatomical analysis of the soul's οὐσία - of the elements and proportions which make up its constitution (II.123.30f.), and he is therefore careful to insist that, while the soul, like everything else, consists of Being (οὐσία), Capacity (δύναμις), and Activity (ἐνέργεια), in speaking of the formation of the soul we are discussing chiefly its "essentia" or quiddity (II.141.14f., 150.19, 152.21, 154.13, 162.2, 193.32), its οὐσία, and only secondarily its δύναμις and ἐνέργεια (II.253.3f., 279.22f.). Such a distinction must not be unduly pressed, for the real point of this account of the formation of the οὐσία of the soul of the world is to describe and illustrate just what Proclus calls its δύναμις and ἐνέργειαι.

What we have to do, therefore, is to try to understand what these δύναμις or "powers" are which Timaeus is attempting to delineate under the picture of the Soul's creation, and for this purpose, as Professor Taylor insists, the tradition should be our truest guide. Now at "de Anima" 404b ff. Aristotle, who was associated with Plato for twenty years, in a discussion of the "propria" of soul (τὰ μάλιστα δοκεῖν θ' ἐπικεῖν καὶ τὰ ἀπὸ φύσεως, 403b) remarks that some, such as Democritus and Anaxagoras, focussed their attention upon soul as cause of motion, upon τὸ κινεῖται, while others concentrated on the soul's "awareness", on τὸ γινόμενον καὶ τὸ εἴδεθαι τῶν οὐνομάτων. These latter regarded the soul as constructed from the same constituent elements
(ἀξιαί) as the objects which it apprehends, on the
ground that "like is known by like". Anaxagoras, for
instance, declared that "with earth we see earth" — ἄξια
μέν γὰρ ἀξίαν ὁπωσδέκατον (Frag.109d). "In the same
way Plato in the 'Timaeus' makes the soul out of the
elements (ἐκ τῶν στοιχείων; for like is known by like
(γνώσκοντας γὰρ τῇ ὁμοίᾳ τῷ ὁμοίῳ) and the objects
are compounded of the ἀξιάι". Others, again, Aristotle
goes on, had combined the conception of soul as κυνηγικόν
and that of soul as γνωριστικὸν and had accordingly
defined it as "self-moving number" (ἄριστος κινών ταύτων).
Aristotle says much the same thing about the "Timaeus" at
406b.26f., where he says that the soul was made out of the
elements (συναπτικῶν ἐκ τῶν στοιχείων) and divided
in harmonic ratios "in order that it might have an innate
perception of proportion" (ἐπει δὴ ὑπήρχον σύμβουλον
ἀμανίκες ἐξή). Xencrates, president of the Academy
355-315, is the person meant by Aristotle in his reference
to a third party who combined the soul's two functions of
motion and cognition. According to Xencrates' interpretation,
the derivation of the soul from the Undivided and the Divided
represents the logical deduction of the series of ἄριστοι
or natural integers from the One and the "Indefinite Quantity";
while the introduction of two other ingredients, the Same
and the Other, Permanence and Variety, exhibits the soul as
an ἀξιάι of movement and rest (Plutarch, "De Animae
Procreations", 1012 a-f.). Xenocrates accordingly defined the soul as a "self-moving number". Proclus ascribes the same conception of the soul as a "number" to Aristander, Numenius, and "most of the other exegetes" (ἀλος πλείστων τῶν ἔγγραφων - II.153.23) and objects to such an interpretation, on the ground that Timaeus has given us no intimation whatever that soul is "number".

Grantor, another member of the Academy, agreed with Aristotle in regarding the psychogony as concerned primarily with the soul’s "cognitive" character. He fixed his attention on ἀναγίγνωσις to the exclusion of κίνησις. The soul’s distinctive "proprium" is the apprehension of the permanent and the mutable, the intelligible and the sensible, or the Undivided and the Divided; and also of the various relations of identity and diversity obtaining in and between the objects of both realms, whence the introduction of two further factors, the Same and the Other (Plutarch, op.cit.1012 a-f. 1013a). The soul, in Grantor’s view, "is composed of all things in order that it may cognize all things" (ἐκ πάντων συνεκεχώρησιν πάντα γιγαντίας, Plut. op.cit.1024f.11).

Both Xenocrates and Grantor, whose respective interpretations seem to have divided the early Academy, held in common, says Plutarch (op.cit.1013a.18), that the soul is not begotten in time but has several "powers" or "properties" (συνεδρίας) into which its ὀρύκτα is here analyzed ἀνθρώπος ἐνεργεῖ, for a lucid understanding of its nature.
Both Xenocrates and Crantor agreed also, it will be seen, in keeping the two pairs, ἰδεῖστον and μεριστῶν, ταῦτα and Θέτευον, distinct from one another. Plutarch who takes the whole account literally, does the same. According to his interpretation (op. cit. 1025a-b), soul consists of an ἀναλογία like that of the body. Just as God united the two mutually opposed "elements", fire and earth, by setting air and water between them, so He drew together the two anithetic extremes, the Same and the Other, "not immediately, but by placing other substances between them, the Undivided next to the Same and the Divided next to the Other". "God", says Plutarch further on (1027a), "bounded indetermination by unity, in order that the soul might be made a substance that partakes of determination, and by the agency of the Same and the Other He blended together order and mutability, diversity and identity; and to all of these He communicated mutual fellowship and friendship by means of numbers and attunement".

Proclus also keeps ἰδεῖστον and μεριστῶν distinct from ταῦτα and Θέτευον, and so, apparently, did most of the expositors. For we may gather from Proclus (II.155.20f.) that the point disputed by the exegetes was not whether the two pairs were identical or distinct, but which of the two constituted the wider category. Some regarded Same and Other as included respectively under Undivided and Divided, but Proclus, whose exposition of the psychologony is based on the classification of the μέριστα.
yény (Being, Sameness, Otherness, Motion, Rest) at "Sophist" 250-254, urges that Same and Other, as two of the comprehensive ὑένυ τοῦ ὄντος, cover the other pair and points in corroboration to the word ὄντον in the expression ἐν μέσῳ τοῦ ὅμοιου ὄντον καὶ τοῦ κατ' ὑδάτῳ μεριστοῦ - "intermediate between the undivided and divided of these" (i.e. of Same and Other). Sameness is present in ἐν μέσῳ and Otherness in ἐν ὄμεροι but the former predominates in ἐν ὄμεροι and the latter in ἐν μέσῳ (156.1f.31f.). As regards the meaning of the four terms, the Same for Proclus is similar in significance to "Limit" (περια), the Other to "Unlimited" (ἀπεριον, II.133.29f., 282.4f.). The Undivided and the Divided, in a general sense, apply respectively to everything intelligible and intellectual and to every quality or substance of a sensible or bodily nature (II.139.3f). More particularly, however, the Undivided means especially the intellectual life of the universe and the Divided the bodily, the life of the soul being intermediate between the two in that it is "per se" separable from the organic life of the world but yet is not without contact with it (140.30, 142.25, 27, 148.23, 152.21, 154.24, 285.12). Accordingly. Proclus regards the soul as compounded of three intermediate "species" (ἐίδη) - the μέσον of ὑμέριστος and μεριστός in the "genus" (γένος) Sameness, the μέσον of ὑμέριστος and μεριστός in the γένος Otherness, and the μέσον of ὑμέριστος and μεριστός in the γένος Being (this μέσον or μέρος τῆς ὑμερίστος being
itself called ὑμή μετα- i.e. the τέτοιον ὑμή ἐκ ὁδος, 156.1). Then the three μέσα or ὑμή are blended, as Timaeus says, into one ἐνέργεια, so that the soul actually becomes an ἐκ ὁδος ἐνέργεια (157.25). And the three γένη used, τετομον, Θάτερον, and ὑμή, are distinctive in that they are themselves τὰ μέσα γένη (156.31 and 155.10), and they are "intermediate" or μέσα in the sense that in each of them "Limit" and "Unlimited", τὰ Θεῖα γένη (160.5), have equal dominion (157.23f.). If "Limit" were more powerful than "Unlimited", the γένη would be ἀμείμηνα; if "Unlimited" were stronger than "Limit", they would be μείμηνα. As it is, the two are equal, so that the three γένη are μέσα. The three γένη are present everywhere in the soul, but in one place τετομον predominates, in another Θάτερον, while ὑμή is common equally to both and thereby gives union to the soul. It is just because ὑμή is common that the Demiurge does not fashion a circle of ὑμή as well as of τετομον and of Θάτερον (257.25, 267.3f.).

Proclus is careful to insist throughout his exegesis that we are talking of one particular specific soul - ἡ κοσμική φύσις, the soul of the world (II.141.3f, 142.9f, 143.23f., 150.3f., 241.3f, 230.14, III.251.23). Plutarch also stresses this point ("de Animae Procr."1024a). Proclus is equally emphatic about the figurative character of the whole account. Thus he warns us that, when Timaeus speaks of the Demiurge as splitting the soul into parts, his words must not lead us to conceive of the soul as a sort of
rod or rule (κανόν, 165.29) or as extended in space (διάστατος, 166.7), or as split up into integers (166.9). For the soul preserves its unity (ἴσως) along with its division (σφιγμός) - this indeed is the peculiarity of "immaterial mixture" (Ἑυλος μείζον, II.254.7) - just as the circle of the Other does not have its unity destroyed by its subdivision into seven minor circles (III.60.2). The soul is at once continuous and discrete (II.166.6, 194.17f., 238.12f., 246.17), both monad and number (μονᾶς καὶ ᾠδήμος, II.238.17). The οὐσία of the soul is in fact at once ἀνδρομητική and γεωμετρική (II.238.27). From this point of view Proclus is in sympathy with the Xenocratean conception of the soul as an οὐσία κατ’ ᾳδήμον (II.165.9), so far as it be taken to mean that the soul is a unity made up of essential parts (μέγιστη οὐσία). He sympathizes, too, with the identification of the Undivided and the Divided with the One and the "Indefinite Duality", so far as this means that the soul is a link between ὑφίσ and ὅμοιος or between πέρας and ἀντίπροσωπον, and not merely that the soul is an ordinary ἀνδρομῆ μονάδικος (II.196.19, of. 242.15f.). At III. 193.14f. Proclus insists again that the division of the soul is not material or geometrical or arithmetical, but is essentially immaterial (Ἑυλος) and intellectual (νοερὸς). So again at II.248.23f. he urges, in reply to "the clever ones amongst the Peripatetics", that the "line" (γραμμή) meant in Timaeus' description of the soul's creation and division is not material or mathematical, but is "essential"
(οὐσιὸς) and, as Xenocrates said, "indivisible" (ἄτομος). Plato's language, he cautions us (347.23f.), is not to be
taken literally, but must be regarded as a symbolical "veil"
(παραπέτασμα). In the same spirit, he remarks at II.349.31f.
that the soul cannot really (ὥνως) be a figure consisting
of circles, as such a conception would involve us in endless
absurdity (ἀλογία). Actually the soul is without shape
and without extension (ἀμφατότης καὶ ἀσύστετος). At II.
278.27f. Proclus makes a passing reference to the criticism
made by Aristotle and repeats that the soul is not a magnitude
(μέγεθος). Finally, at II.284.19 he points out that Plato's
own language at 360 shows that he did not intend us to
understand the details of the psychogony literally. For how
can the soul be really (ὥνως) circular and yet be spoken of
as "woven into" (διαπλακεῖσθαι) the world and at the same
time as "wrapping it around" (περικλείθεσθαι)? The two
expressions, says Proclus, simply combine to express the
double conception of the soul's omnipresence and of its
superiority to the body which it animates.

We come to what Proclus understands by the
figurative details of the ἐφύξης when he turns from the
soul's ὀσιὰ to discuss its ὑάλοθες and ἐνεργεῖα at II.
258.1f. The soul's ὑάλοθες, he says, are exhibited in the
various motions of the eight circles of the soul. Its
"activities" or ἐνεργεῖα relate partly to knowledge
(τὸ γνωστικὸν), partly to motion (τὸ κινητικὸν 279.28).
Plato, in fact shows how the soul by moving itself moves other
things, and how by apprehending itself it apprehends both
things antecedent and things posterior to it (230.1), for all things are as it were "rooted" in the soul (232.32). Thus the soul's "revolution in itself" is indicative (1) of the soul's self-motion (αὐτοκίνησις), and (2) of its knowledge (γνώσις) of itself and of all else (236.20f.). Now the soul contains as media between the Undivided and the Divided δύο of the three γένεσ Being, Same, and Other, and by virtue of these three it knows their counterparts in both διώριστα and μεριστά (297.14f.), and this is what is meant by the words αὐτὴ ἀνακυκλουμένη πρὸς αὐτὴν, "returning in a revolution to herself", at 37a (298.24, cf.311.19). Like Aristotle, Proclus quotes the words of Empedocles, γενεμένη μὲν γὰρ γειστὶν ὁπώσον (298.6). All knowledge, he goes on to say, in fact consists in a correspondence (διωρισμὸς) between subject knowing and object known (298.27), in a "return and adaptation and agreement" of τὸ γνῶσκον τῷ γνωσκόμενον. Here we may compare II.136.1, where Proclus remarks that the soul is made to consist of the primary γένεσ, of numbers and harmonic proportions, and of figures and various motions, "in order that it may cognize being, number, harmony, figure and motion in all else", as well as II.206.1, where he says that the soul of the world contains within it the forms or proportions (λόγοι) and intellectual causes (νοεροὶ αἴτια) of all things in the world.

More particularly, however, proceeds Proclus, the circle of the Same apprehends especially...
οὗτος and τὸ νοητὸν, that of the Other ὡς ἑκάστη οὗτος and τὸ αἰσθητὸν (II.299.11.23). What faculty, then, is able to distinguish between νοητὸν and αἰσθητὸν, since, as the "Theætetus" teaches us (185c), it is not possible to know and speak about the difference between the two without a knowledge of both? The λόγος which distinguishes the two constitutes exactly the ἐνέργεια of οὐσία, for it is common to both the circles (cf.295.4), and this it is that makes the soul and its knowledge one and uniform and entitles us to call the soul as a whole "rational" (λογικός, 299.16-21, cf.307.27). Indeed, why are there not three κύκλοι instead of two, to correspond with the three στοιχεῖα of the soul, unless there is one οὐσία in both κύκλοι (306.12)? And whereas the two other κύκλοι apprehend intelligible and sensibles separately or in isolation (ἀγνωστὸν), the λόγος which is the σύνεμερος of οὐσία is a uniform or unifying knowledge (ἐνεργείαμα γνώσεως, 308.2).

Proclus' final definition of the soul is given at III.254.13-18. "Soul is an essence intermediate between real Being and Becoming, compounded from the intermediate genera, divided into essential number, bound together by all the media, diatonically attuned, with a life both one and dual, and with a knowledge at once single and twofold." In the same context he discards Aristotle's definition of the soul as the "actual realization of a natural organic body" on the ground that it talks of what the soul is without defining what soul itself is.

Now, taking these four interpretations of
the psychogony (Aristotle, Xenocrates, Crantor, and Proclus) along with Timaeus' own words, and bearing in mind that Undivided and Divided and Same and Other represent one and the same antithesis, we may note three points. (1) It is clear, first of all, that the basic thought underlying all of them is the general principle that "like is known by like". Their agreement on this point makes it more or less certain that we have here the key to the right appreciation of Timaeus' account. (2) The description of the Demiurge as blending the continuous and the discrete into a third substance, taken in conjunction with Aristotle's explanation that in the "Timaeus" the soul is constructed of the στοιχεῖα, at once suggests a correspondence with the thought of the "Philebus" (24e.2), where two similar antithetic elements, πέρας and ἀπερήρων, determination and indetermination, the original Pythagorean στοιχεῖα of "things", are likewise fused into a μίξις or κόμψα. (3) Finally, when we remember that Timaeus is a fifth-century Pythagorean, it becomes fairly clear that, as Professor Taylor maintains, the στοιχεῖα of the soul's constitution mentioned by Aristotle are not, as Xenocrates plainly supposed, the στοιχεῖα into which Plato analyzed his "Forms" or "Numbers" - the One and the "Indefinite Quality", but the fundamental Pythagorean ἔξαί, which Aristotle also distinguishes in his account of the Platonic πραματεία - viz., the πέρας and ἀπερήρων (cf. Aristotle, "Met." 986.a.17, 987b.20), and that the foundation of the whole thought of the passage
is the Pythagorean doctrine of the derivation first of the
unit and then of the series of \( \Delta e i \theta n o i \) from "Limit" and
"Unlimited" - which serves to explain the double mixture
which Timaeus represents the Demiurge as performing. Proclus,
as we have already seen, introduces the Pythagorean categories
\( \Pi e r k s \) and \( \Delta e i r o n \) into his exposition. And as in the
formation of the soul the \( \Delta m e r i s t o v \) and the \( \mu e r i s t o v \) are
blended into a third \( \sigma u s i a \), so later (52d) we find that
in the physical world at large there is a corresponding
combination of \( \Omega n \) and \( \chi r s \) into the determinate process
called \( \gamma e v e s i s \). To apprehend its proper objects, the soul,
on the principle that "like is known by like" must have a
constitution answering or similar to them. Thus the immediate
emphasis of the whole passage is especially on the "gnostic" or
"cognitive" aspect of the soul, on its intelligence as apart
from its motion. Astronomically, of course, as is shown
later on (38b-39a), by means of the \( K u k l o i \) of which it
consists the soul is the source of the orderly motion of the
heavenly bodies, but all we hear in the present context of the
soul as a cause of movement is the passing remark that soul
is "that which is moved by itself" (\( T o \ k i n e i m h v o v \) \( \varepsilon \phi \alpha \varepsilon t o v \),
37b), though it is implied often that the soul's motion is
intimately connected with and involved in its mental activity
(cf.39c, 40a, 89a, 90d).

The most important point, however, is that
we should avoid supposing that the soul consists of elements
identical with those which make up the objects it cognizes.
For such an assumption not only destroys the distinction between subject knowing and subject known, but in effect makes the soul a "res extensa". Proclus himself warns us against this error. Plato's words, he says (II.152.24f), must not lead us to regard the soul as a mixture containing something incorporeal and something corporeal (τι καὶ ἄσωματον καὶ σωματικὸν), as Eratosthenes supposed, or as a sort of geometrical entity made up of a point and a line, as Severus conceived it; for in neither case is such a combination possible. This is, in fact, the pitfall into which most of the interpreters are prone to fall. It leads Xenocrates to regard the soul as itself a "number", and it is the defect which likewise vitiates Crantor's exegesis. This point is clearly seen by Plutarch, who remarks that, on Crantor's interpretation that the soul is blended ἐκ τῆς νομῆς καὶ τῆς περί τις κάθετος δόξης φύσεως, it is not clear how such a mixture can give rise to soul more than to anything else, since the whole world itself and all its parts consist of intelligible and corporeal ("de Anima Procr. 1013 b-ο). He says the same thing again at op.cit.1023a. "What difference", he there asks, "will there be between the origin of the world and that of the soul, if both are constructed out of material and intelligible?" The same error reappears in the fragmentary treatise called the "Timaeus Iocarus", probably a production of the first century A.D., where the soul is similarly described as "a blend of indivisible form and divisible being" (95e); and
again in the interpretation of the Stoic Posidonius, whose
definition of the soul as the "form of the extended in every
direction" ( ἰδέα τοῦ πνεύματος διαστάτου) is tantamount to
materialism, as Plutarch remarks (op. cit. 1023b). [In common]
against both Xenocrates and Posidonius, Plutarch further
objects that "neither in limits nor in numbers is there any
trace of that faculty which enables the soul to form judgments
about the sensible."For, he goes on, it is impossible to
suppose that opinion, belief, imagination and such physical
affections "proceed from units or lines or surfaces" (op. cit.
1023d).

What Timaeus seems to mean, therefore, is
simply that the soul in its ultimate law of structure is
analyzable into constituents analogous to those which make
up the different objects of the physical world. And because
there is such a correspondence between them, the soul is
able to deal in its complex mental life both with the νοητὴν
φύσις and with the σωματικὴ φύσις, with the truths of
exact science and with the transitory objects of sense-
perception. In virtue of its composite nature, the soul
by "revolving upon itself" can formulate impressions at
once about the stable and about the mutable, about the
eternal and about the temporal. Yet though the soul thus
frames two different sets of judgements, it still remains a
single consciousness that can keep the two distinct instead
of confusing them. This, perhaps, is the point that Timaeus
has in mind when he makes the blend of the Undivided and
the Divided itself an ingredient in the divine chemistry. This at any rate was the interpretation of Proclus (II.299. i6f.), as we have seen. It was also that of Plutarch, who says that God made a blend of the Undivided and the Divided (i.e. τὸ τείτον οὐάλκες καὶ ἀσκ) for the reception of the Same and the Other in order that the common reason (ὅ κοινὸς λόγος) may be enabled to "separate the one from the many and the undivided from the divided by determinations and distinctions", and "in order that there might be produced order in diversity" (ἐν ἔν ἕνεκεν τῆς γένεται, op.cit. 1025e). The κῆρμα of ἀμεριστὸν and μεριστὸν seems to represent the unity to which πατέρες and θέτεροι announce their independent judgements; and this faculty, because it is a combination of both, is able, not only to keep the two processes distinct, but also, in virtue of the ἀμεριστὸν or ταῦτα which it contains, to give a certain amount of clarity and definitude to the soul's empirical apprehension of sensible phenomena. This, in fact, is what makes possible the construction of a "likely" and intelligible, if provisional and progressive, doctrine about the nature and structure of the physical universe.
CHAPTER VIII.

THE MEANING OF THE "MYTH".

We are now in a position to consider the general meaning of the "tale" of Timaeus and to try to determine what is the positive doctrine which he is attempting to set forth amid all the fanciful decoration of his discourse. Now throughout his account Timaeus seems to speak of an historical creation in time. He lays down at the outset that the world "has come into being and has had a certain beginning" (γέγονεν, δὲ ἔδωκεν τινὸς ἄρμανεν, 28b—cf. 32c, 34b—ὅτε ἡμῶν Θεός, 37a, 38b, 41a, 44c, 51a, 52c), and he concludes on the same note (ὅτε ὁ

κόσμος ὁ ἐκ γέγονεν, 32c). He describes the soul as "the best of all things begotten" (37a), and he distinguishes more than once between the eternal or that which is out of time altogether, and the everlasting in time. "One and only-begotten this universe has become, and is, and ever shall be" (31b). The soul of the universe "made beginning of her divine life of understanding, which continues without end for evermore" (36c). "The nature of the intelligible living creature was eternal, but to attach eternity altogether to the begotten was impossible" (37a). "The pattern is existent for all eternity, but time (or, the universe) has become and is and shall be continually through all time" (38c). At 48b Timaeus undertakes to "investigate the very origin of the elements before the generation of the universe", asserting
that "there was Being and Space and Becoming, three distinct
natures, even before the universe came into being" (52d).

Accordingly [the] two later Platonists,
Plutarch of Chaeronea and Atticus, definitely understood
the dialogue as teaching a beginning of the world in time -
not, however, in the difficult sense of a sudden creation "de
nihilo" (though such a conception was not unknown to Plato,
for cf."Sophist" 265c, where the "visitor from Elea" says that
what distinguishes divine from human creativeness is the
fact that the former creates what was previously non-existent
- πρωτερον οὐκ οὖτε), but in the sense of the co-ordination
by God of antemundane forces. The "creation" taught by
Timaeus, they thought, was not an evolution of something out
of nothing, but rather the superinduction of order and plan
upon a pre-existing chaotic medley of heterogenous elements.
"The creation did not arise from what was not, but from what
was rude and imperfect, like the materials of a house or
a garment or a statue" (Plutarch,"de Animae Procr." 1014b).
"God was father and artificer, not of body pure and simple
nor of bulk and matter, but of proportion about body and
of beauty and uniformity" (op.cit.1017a). "The soul that
lacked understanding and the body that lacked form co-existed
without ever any origin or beginning. But when the soul
partook of understanding and attunement and became rational
by means of unison, it brought about a transformation in
matter and directed and converted its motions by the
domination of its own motions" (Plutarch, Quaestiones.Plat."
"Prima facie" this is what the language of Timaeus seems to suggest. He talks quite unequivocally at 30a and 54af. of a precosmical μίμημα, and he represents the activity of the Demiurge as combinative rather than formative - συνεστήσατο (32b, 34c, 53b, 69c), συνεκεράτατο (35a, 37a, 68d), συνετεκτίνετο (30b), συνέτρας (34c), συναρμότων (35a), συγαγαγών (36a), ὁ συνιστάς (30b, 30c, 32a, 36a), ὁ συνθείς (33d), ὁ συνήγας (32c). The Demiurge "ordered forth" (σιέκόσμυτο, 69c) the cosmos by "taking over" (παραλαβῶν, 30a, προελθόμαν 68ε) and "shaping" (σιέκοχρυσισάτο, 53b) materials already existing, like a potter and his clay. The teacher of the "Gorgias" (503cf) and the philosopher-statesman of "Republic" VI (500d) are conceived of as doing much the same thing with human nature (cf. also "Cratylus" 388f., and Politicus" 309c). Such a literal interpretation of the "Timaeus" however, involves insuperable απορία. Although a "beginning in time" was read into the dialogue also by Aristotle (cf."Met".1071a.37-1072a2, "de Caelo" 279b33), it was certainly not the traditional interpretation, for at the beginning of his essay "de Animae Procreatione in Platonis Timaeo" (1012b) Plutarch acknowledges that his exposition is contrary to that accepted by most Platonists and asks for indulgence on that account. It assumes the pre-existence of τὸ σωματοειδὲς in flat contradiction to the priority which Timaeus gives to ϕυλή (34c). This emphasis on the precedence
of soul is of itself sufficient to show that the description of a rude "indigesta moles" once existing uninformed by mind is only symbolical. Moreover, how can there have been a visible σώμα before the universe came into being? For Timaeus implies at 31 b.c. that the quality of being δεματοριβι is itself the result of God's design and as such applies only to τὸ γενέμενον. And Timaeus has no place in his physical doctrine for an imperceptible "matter". For him the whole physical world is also the sensible world, δεμάτος λπτός τε, as he asserts it at 23b. He would have had no sympathy with the distinction of Locke between substance and qualities, essence and appearance, although some such theory is what Archer-Hind actually tries to read into the dialogue (cf. Archer-Hind, Introduction p. 32 - material objects "have no substantial existence, but are subjective affections of particular intelligences"). Even his ἐποδοχή or πρός γνώσεως, the spatial continuum, is no "substrate", but is simply that in which the events and processes of nature come to pass (τὸ ἐν ἐὰν γίνεται, 50d). It is on the mistaken idea that the ἐποδοχή is ὑποκείμενον τῷ that Aristotle's criticism at "de Gen.et.cor." 329a.15f. is based. Further, if there was a disordered motion anterior to the creation of the cosmos, it must have been an event in time. But the generation of time is declared by Timaeus to be synchronous with that of the ὀδγανός (33b); time is regarded simply as an equable succession marked and measured by the motions and periods of the planets, the ὀδγανὸ κρέινον. Thus
time cannot exist apart from events nor events apart from
time, so that (1) motion cannot have taken place when as
yet there was no time, and (2) there can never have been a
completely empty and stationary time in which there was no
motion. Aristotle himself, although he took the "Timaeus"
literally, saw the contradiction involved in the "generation

Proclus comments very frequently upon the
view of a Χρονική δέκτη of the universe (which, it is
worthy of notice, he ascribes at 1.276.31 to "many other
Platonists" - άλλοι πολλοί πάνε Πλατωνικῶν - as well as
to Plutarch and Atticus, with which cf. also οἱ περὶ
Πλούταρχον καὶ Αττικόν, I.381.26, 384.4, and οἱ περὶ Αττικὸν,
1.391.7, 111.37.12). He emphatically rejects it - πόρρω
Χρονικῆς γενέσθαι ἑκένει (ο. Μ. Τιμαῖος) τό πᾶν, I.283.23,
οῦ κόσμος ἀγένητος κατὰ τὴν Χρονικὴν γένεσιν, I.323.9, and
attacks it with many extremely acute arguments. First
of all, he refers at I.283.27f. to "the remarkable
supposition of Atticus" that the disorderly chaos (τὸ
πλημμελὲς, καὶ ἀμέτρητος κρυπτομένου) which Timaeus talks
of as preceding the world is unbegotten, while the world
itself is begotten "from time" (ἀπὸ Χρονοῦ). Proclus
objects: (1) Plato at 28b says that what is sensible
is begotten, and therefore, if we understand by Χρονοῦ
begotten in time, the πλημμελές must be begotten in time.
Atticus apparently got out of this impasse by saying that
τὸ πλημμελές is not now sensible or visible but was so
before the creation of the world, and that when Plato talks
of the visible being begotten he means that which is and not that which was visible. Proclus rightly urges that the definition simply says that everything sensible is the object of opinion plus sensation and is therefore begotten. (2) It also follows that ἡ παντεύεσσα and the universe are both either begotten or unbegotten. If both are begotten, then the Demiurge begat disorder, and therefore cannot be good.

The whole hypothesis of a "beginning in time" is discussed more fully by Proclus at 1.235.20f., where his most cogent arguments may be thus summarized. (1) Plato says that time came into being together with the universe, and therefore if the universe had a "beginning in time", time must also have had a "beginning in time", when as yet there was no time. (2) Plato gives life to the soul of the universe only on its conjunction with the body, thus making the soul and the body co-extensive in life: if, therefore, the soul is always, the body is always also. (3) If the Demiurge is eternal and unchanging, as he is described, he must always create, and consequently the object of his creative activity (i.e. the universe) must always exist. Otherwise, why should the Demiurge suddenly stir from an infinity of idleness? He cannot have abruptly decided that creation would be a better thing than idleness, else he must previously have been ignorant, and we shall have the absurdity of a νοος containing ἡγύονος as well as ἥγνώσις. And if creation were not better for him, they why did he not continue idle? (4) If the world once was not, there was a time when the Demiurge was not creating. He was thus only a creator in potentiality.
and was therefore for some time imperfect. The Demiurge Proclus continually insists, creates eternally and is an αἰώνιος ὑποστάτης (cf. II.195.1, II.249.1, III.7.22, cf. Plotinus "Ennead" II.9.8).

At I. 366.27f, Proclus advances further arguments against the conception of ἐκάτερον γένεσις from the assumption that the Demiurge is good. Was the non-existence of the universe, he asks, due to the Demiurge or to the disordered condition of the "substrate" of the world (i.e. the πᾶν ἕσον ἡν ὑφατόν of 30a)? (1) If due to the Demiurge, does this mean that He too did not exist eternally? That is an illegitimate and jejune hypothesis, and we must suppose instead that there was a time when the Demiurge was inactive. In this case, then, was the Demiurge unwilling or unable to create? If we adopt the first alternative, we shall inadvertently be denying the Demiurge's goodness; if the second, we must suppose that the Demiurge at one time lacks the power which at another time He possesses, and that is absurd. (2) If the "substrate" was responsible, was it previously suited or unsuited to systematization? If suited, obviously it was not it that stood in the way of creation. If unsuited, how did it become suited? Since it is unable to move itself, the impulse must have come from the Demiurge. If, then, the Demiurge was good and wanted all things to become like Himself, why did He delay? If the Demiurge is always good, He always wishes to diffuse good; and if He always wishes to diffuse good, He is always able to do so, since to desire what one
cannot attain is the mark of the meanest natures (cf. III.313.3). But if the Demiurge was always able to communicate good, He always does so in actuality, else His power will be imperfect. And if He is always communicating good, the world is always coming into being.

At I. 391.4f, Proclus recapitulates the "reverend conceptions" (σερρεπετη νοῦματα) of Porphyry in refutation of Atticus' assumptions that there are two distinct and unbegotten dekhai, God and "Matter" (ἐγά), and that this "Matter" was impelled by an irrational soul and was arranged at a certain moment in time into a cosmos. Porphyry's arguments may be summarized thus. (1) His objections to the first thesis, that God and "Matter" are both unbegotten, are all reducible to one. If two such diverse principles as God and "Matter" agree in being unbegotten, what accounts for their difference in nature (διαφορά)? Why does one tend to preserve, the other to destroy, or why is one immutable and the other mutable? There can only be one dekhai and not many - μία ἡ δέξη καὶ οὐ πολλαί (392.24), a position which Porphyry supports by reference to Plato's enunciations in other works - "Republic", "Epistles", Philebus" and "Sophist". (2) Atticus' other thesis that the world had a "beginning in time" is discredited by a shrewd argument similar to that which we have already met with at 263.14f, the point of which is that if the essential nature of a cause or dekhai consists in the communication of order, the cause as cause must be as much dependent for its existence on the effects as the effects on the
cause; the cause cannot exist without simultaneous existence of the effects. Unless God is imperfect and His power as Demiurge is something supervenient or adventitious (ἐπίκτηρος), He must always be creating. (3) A further argument (394.11f) repeats that given by Proclus at 366.27f. The absence at one time of order must have been the fault either of God or of "Matter". It cannot have been due to the will of God, because He is always good and as such would always produce good. And if it was due to resistance on the part of "Matter", what overcame its resistance? The assumption of a pre-existent state of disorder (ἀτελεία) is simply a logical or hypothetical (καθ’ ἐπιβεβαιώσεως) separation of form and formless intended to indicate the order which material things enjoy and their dependence for this enjoyment on other sources.

At II.104.9 Proclus remarks that the account of the origin of φένεωσις of the soul proves of itself the eternity of the world. For if φένεωσις is ascribed to things without origin, (i.e. soul), obviously the φένεωσις meant cannot be an actual origin in time. Further (II.113.28f), soul, according to Timaeus (34c), was originally made by the Demiurge "mistress and ruler" of the body, and thus to be ruler (τὸ ἀρχεῖον) must be an essential attribute of soul. And if this is essential (κατ’ ὄδοιον) and not merely accidental (κατὰ συμβολὴν ἔκοσ) to soul, it is always present to it. It cannot be present to it in potentiality (θεμελιώ) only, else the soul will be imperfect. It must therefore be present to it in actuality (κατ’ ἐνέργειαν), from which it
follows that the universe (or rather its body), of which the soul is ruler, is co-existent with the soul.

At III.37.7f, Proclus points out that Timaeus' description of "was" and "will be" as "forms of time that have come into being" (σχήματα και χρόνος τῆς ζωῆς) involves the corollary (πόρισμα) that, since time came into being simultaneously with the universe, "was" cannot have existed anterior to the creation of the universe. And if "was" did not exist before the universe, neither did motion (since, as Aristotle showed, motion is intime and is made up of "was" and "will be"). But if there was no motion before the universe came into being, then Atticus' unbegotten "much-noised irregular motion" (πολυθρόνα παθητὴς κίνησις) moving in άτοικτον Υάλων cannot have existed either. The whole language about time - that "time has come into being along with the universe, in order that, having come into being together, together they may also be dissolved, should ever any dissolution of them come to pass" (38b), shows, says Proclus a little later (II.49.29f), that the universe is both unbegotten and indestructible. (1) If the universe has come into being (i.e. in the ordinary sense), it has come into being in time. But if it has come into being jointly with time, it cannot have come into being in time, unless we are to suppose that time itself came into being in time, and that there is "time prior to time" (πρὸ Υάλον Υάλος). (2) Every thing which is dissolved is dissolved at a certain time (ποτε). Now time cannot be dissolved in a part of itself and therefore can never be dissolved; and, since the universe is indissoluble as long as time is indissoluble, the
universe can never be dissolved either.

Finally, at III.282.27, Proclus puts forward still another argument against the conception of a ἱέρεια as a consequence or πορίσμα from the assertion at 42a that all souls at their first incarnation become men. If the universe had a first moment, so did the descent of souls into γένεσις and there must have been a first soul that descended and became a man. This first man cannot have been born of woman, nor again can he have generated woman. Plato, therefore, cannot mean a ἱέρεια of man, and male and female must always exist. The argument is repeated in a similar form at III. 294.4f.

Proclus also records at I.239.7, and again at II.95.29f. the interpretation of Severus, like that of the late Dr. Adam ("Nuptial Number of Plato"), that the world simply considered (ἀπαθεῖς) is eternal, but that the world now existing is begotten. The history of the universe is made up of two continual and successive cycles in opposite senses, as described at "Politicus" 270b, on one of which the universe is now travelling, so that in this sense the universe, our universe, had a beginning. Proclus objects (1) that it is not legitimate to employ deliberate "myth" for the interpretation of scientific questions: (2) how can the soul of the world alter its motion? (3) how can the universe be perfect and self-sufficient if it seeks such alteration? (4) How can there be any alteration in the circuits if they
remain perpetually the same and preserve their appointed sense (cf.I.96.3)? In this last objection Proclus is obviously confounding the cycles of the "Politicus" with the two κύκλοι ascribed to the world-soul in the "Timaeus", and he actually quotes "Timaeus" 36c. The really valid argument is the first one. The hypothesis that the world is subject to periodical and alternate half-cycles of ιγείωτας and θορίας has no support other than that of the fanciful Orphic "myth" which is related "in play" in the "Politicus" and which is not intended for science but is there put forward simply as an illustration of the statesman's function as "shepherd" of the human flock. As a cosmological doctrine it is definitely discountenanced by the eternity in time which, as we have already seen, Timaeus emphatically attributes to the world - 31b, 36c, 38c, cf.also 32c,33a.

It should, therefore, be quite clear that the description of creation as an actual event with a "first moment" is not the real meaning of Timaeus, but is put forward "for purposes of exegesis" ( Θρεικής ἐννέα ) or "for expository clearness" ( συγνωσίας ἐννέα στοιχεύματι), as the earliest interpreters understood (cf.Plutarch,"de Animae Procr." 1018a, Proclus I.290.3-11, Aristotle, "de Caelo", 379b, Plotinus, "Ennead" IV. 8.4). We have seen already that the object of Timaeus' geometrical analysis of the four Empedoclean ἑπάρκη is simply to exhibit the structure of the world as the embodiment of rational plan. This should
indicate to us the real purport and significance of the whole μῦθος. The "Timaeus" in all the miscellany of its contents and scientific minutiae is simply a luminous and symbolical way of declaring that the physical universe is not its own "raison d' être" but is only explicable in terms of other more ultimate factors. This is what Proclus means when he says at the beginning of his commentary that the dialogue is an attempt to show the subordination of "causae" to the true and proper causes of the events of nature (οἱ κυρίες αἰτίαι τῶν φύσεων γνωμένων, I.2.7). Proclus himself reduces αἱ πρωτονόμοι αἰτίαι to three: (1) a "demiurgic" Mind, (2) an intelligible pattern, and (3) the Good, corresponding respectively to the efficient cause (τὸ ποιητικόν) in the "archetypal" (τὸ περατειγματικόν), and the final (τὸ τελικόν) - I. 2.3, 3.4; and συνείδησι he divides into (1) the "understuff" or "substrate" (τὸ ὑποκτίμενον, I.3.16, ὡς ὑποκτιμήθη κύστις, 3.23, i.e. the ὑποστάσεις 3.1, though, as we have seen, the ὑποστάσεις is not really a "substrate"), and (2) the "form" (τὸ εἶδος, 3.16, τὸ ἐνυλον ἐἴδος 3.2, by which Proclus probably means the geometrical structure of the corpuscles of the four "elements"). Though Proclus keeps formal or "archetypal" cause distinct from the final, virtually, as mentioned earlier, the two coalesce.

In particular, the emphasis of Timaeus throughout is that Mind, in the form of a consciously-working good God, is the force at work behind the existence
and functioning and processes of nature. As Proclus explains at 1.231.27 and 1.235.26, when Plato says that the world had an ἀέρια, the meaning, as stated at 29e, is that the world is dependent on the most supreme ἀέρια, the goodness of God. This, as we saw, is the real point of the distinction between  νοῦς and ἀναγκή. Mechanical causes are not the real causes of the arrangements of nature, but are simply subordinate though indispensable preconditions. The true cause is always, in the words of "Phaedo" (97d), τὸ ἀριστον καὶ τὸ διάτιστον. Aristotle likewise insisted that the working of nature is essentially teleological, and that material causes are not positive causes but are only indispensable aids (ἐπὶ θεῶν ἀναγκαίον, τὸ ὅσον κύριον τὸ ἐπὶ, cf. "Phys." 192b 14, 193a 28, 199b 15, "de Part.Anim."629b11), but with this important difference, that he regarded the design at work in nature not as deliberate but rather as instinctive and implicit, whereas for Timaeus νοῦς as such belongs to a conscious and personal ἀέρια and there can be no such thing as what modern philosophy would call "de facto teleology" (cf. "Timaeus", 37c). We notice the "young gods" exercising forethought and purposive intelligence just like their own "Father". In fact, the distinction between of νεόν Θεόν and ἐνδικείουσας is not always clearly kept by Timaeus - cf. 46c, 47a, 47b, 71a, 74b, 74c, 74d, 75c, 76b. At 71a we actually find the plural ἐκθέτες, followed by the singular ἐπιδομελεύσας, as again Θεόν at 91a is followed by Θεός at 92a. The "young gods" are imitating the beneficent example
of their own Maker (cf. 42e, 59e, 71d), and so He is the virtual cause of their intelligent activity. The point of Timaeus is to insist, as Socrates does in the "Phaedo" (95b-99d), that all the particulars of the universe are arranged "for the best", though they may not always appear to be so and though we seem to meet always with an element of the incalculable. All the scientific details of his discourse are intended to express this one truth. Timaeus felt that "no astronomer can be an atheist".

Thus in a way the dialogue serves as a theodicy, as an attempt in Milton's phrase, to "justify the ways of God to men". "That God constructed these things to be as fair and as good as possible, finding them not so - let this above all things be laid down as our consistent thesis" (53b). The true rationale of the world, the *dei natures* (29e) of its existence, is just the ungrudging nature of God, whose Essence consists not in self-cloistered and isolated bliss, but in the eternal and unselfish manifestation and realization of His own goodness. So the message of Christianity is that God is Love infinite and self-giving, that "he that loveth not knoweth not God; for God is Love" (I. John iv.8). Actually the world is eternal both "a parte ante" and "a parte post", but Timaeus finds it convenient for his purpose to assume a beginning of the world "in time" and to begin "ex hypothesi" with an antemundane state of disorder out of which the "world as God made it" has emerged. Stript of parobolical decoration, this is simply a graphic
way of saying that the world as γιγεμένον does not exist in its own right but is dependent on the intelligent guidance of God, and as such is the "best of all possible worlds". The historical narrative of the world's origin we need not regard as anything more than, in Timaeus' own words, an innocuous "divertissement" (άναπευςις, 59c). The real history of the world consists in a continual approximation to reality Absolute and eternal, as the history of cosmology consists in a never-ending approach to knowledge stable and final. "The world is not yet made, it is only in the making". Its life is always, in Browning's words, "a mainly onward moving, never wholly retrograde".

It is very much the same view that Proclus insists upon in his frequent discussion of the question of the world's γενόστως αἰεί. The universe, in his view, is γενητον in the sense that it is composite and that it is dependent, in so far as it is body, on other causes for its being (I. 277.14ff), since body is unable to beget or to sustain itself (293.22, cf.233.11, 297.11). As such, the universe always (αἰεί) partakes of life and motion and mutability. But this is not a primary and eternal αἰεί, but a secondary and temporal one (Χενωρθον), the difference being that the eternal αἰεί is once for all and all at once, while the temporal is "stretched out" along with the whole continued and infinite duration of time (273.9, 285.9, 294.29, cf.239.2, III.3.6). The meaning of Timaeus is that the world does not beget itself but is
produced by something else, "becomes" a copy of something else, is compounded out of many unlike constituents, and has a "becoming" which is unfailing and is co-extensive with the whole stretch of time (280.28f). In this way the world is always being begotten and has had a beginning and has an end of being begotten, there being no distinction between beginning and end in the world's history because the world is begotten in the whole of time and not in a portion or section (282.2f.). We may explain Proclus' point thus. The beginning of the world's γένος is conterminous with its end — in the same way as any point on the circumference of a circle may be taken both as the beginning and as the completion; there is no absolute beginning as in a terminated straight line. Thus, as Proclus says, the universe always is coming to be and always has been coming to be (γέγονόμενος ἐστιν ἄρι καὶ γέγονός, 282.17), that is to say, coming to be what absolutely is (ἀυτὸ ἐστι, 291.1). For the world is unable to admit all at once the whole infinity of the Demiurge's begetting power, but can only take something of it in the "now" (294.22).

Proclus repeats the point at 1.356.21f. The Demiurge makes eternally, and the world is eternal according to the sempiternity "stretched out" along the whole of time. The universe is always in process of arrangement and always being made good, but is never all at once (ἀρετῇ ἀνέγερτο) good. The world, that is to say, is always "in the making", its life is an eternal process and
not a static eternity - γινομένη καὶ οὐκ ἐστώσα διστός, 1.367.18. It is the same with the soul, which, like the corporeal, cannot receive being all at once (αἷμα) in its entirety and infinity, but is always receiving it in time, and accordingly its activity (ἐνέργεια), unlike that of intellect, differs at different times and partakes of change (μεταβασία) - II.123.6f., 124.12f., 243.19f., 290.24. For this reason it is everlasting (ἀνέφερος,124.28) and indestructible (ἀνόμαρχος,125.3), but it is not truly and simply eternal (ἀπάθεις αἰώνιος). It is the same, too, with θεοί, who are only secondarily immortal because their life consists in always coming into being throughout the whole of time (III.215.25f., 217.20f., 218.24). This is indeed one of the reasons why they are called the "young" gods - οὐκ ἐσε ἐφ' αμνοτ' ποτε εἶναι, ἀλλ' ἐσε ἀγαννυρός (III.311.9). Everything γεννυτό, as Proclus says at III.220.1 has a "repaired immortality" (ἐπισκευαστὴ ἀθανασία) and a "bond" (δέσμος) given to it from extraneous sources, since it is unable to keep together or to impart life to itself.
CHAPTER IX.

THE "TIMAEUS" IN RELATION TO PLATO'S OWN THOUGHT.

We may conclude with a few words on the second question raised in the first chapter - Whose doctrine does the "Timaeus" present to us, and how is it related to Plato's own thought?

Now there is abundant evidence, as we have already seen and as Professor Taylor has demonstrated, to indicate that in the dialogue we are dealing not with distinctively Platonic doctrine but with Pythagoreanism. Not only does Proclus insist that the speaker is a Pythagorean, as we noticed, but he continually stresses the Pythagorean character of the whole dialogue. Thus he observes at the outset that in the fundamental teaching of the dialogue Plato is consciously following Pythagorean method and doctrine, being, in fact, the only philosopher to do so (I.1.25, 2.50), and he lays down accordingly that our interpretation must be made to fit in with Pythagorean tenets (I.15.22). He remarks that the dialogue is, in form, a combination of Pythagorean elevation of conception with 'Socratic ethical interest (I.7.21f). It is Ῥυθαγόρειος Ἐθῆθαι, he declares, that Plato is adopting in studying the ᾿Αγαθικὴ ἔννοια of nature (I.1.25, 2.30, 17.15). It is likewise Ῥυθαγόρειος Ἐθῆθαι of connecting subject investigating with object investigated that Plato has in mind when he says at 90a that he who would be happy must assimilate himself to the
object of his thought, i.e. to the universe (I.5.21f).

Plato's employment of mathematical and geometrical figures in the description of the soul's constitution is similarly suggested by the Pythagorean division of things into θεότητα, μαθηματικά, and φύσις (I.8.14); while the introductory recapitulation of the first five books of the "Republic" is itself simply an illustration of the Pythagorean θέος of promising actual doctrine with simile and allegory (I.30.4, 33.8). So again Plato alone follows the Pythagoreans in saying that everything which comes into being does so from a cause (I.262.10), just as he agrees with them further in regarding this cause as a δινομογενής "apart from" the world (237.1). "Timaeus", as a Pythagorean, adheres to the principles of the Pythagoreans" (III.163.8). In these references to Pythagorean doctrine Proclus is probably basing his statements partly on the first-century "Timaeus Locrus", and partly on the "Fragments of Philolaus", from which he quotes, for instance, at I.175.29.

The type of Pythagoreanism which Timaeus represents is clearly suggested at 40d-41a, where Timaeus covertly ridicules and dissociates himself from the theogonical fancies and extravagances of the Orphics and such sectaries. That his reference is to the Hesiodic and Orphic cosmogenies and not, as generally supposed, to the national cultus and mythology of Athens, is proved, as Professor Taylor points out, by the figures mentioned —
Gaia, Uranus, Oceanus, Tethys; and that the passage is simply humorous satire is clear from the scoffing remark that our only evidence for the existence of these obscure deities is the authority of those who profess to be their progeny and who must surely know their own forefathers. Eusebius, the ecclesiastical historian (c.260-330 A.D.), recognized not only the irony but also the persons against whom it was directed ("Præparatio Evangilica", XIII.640 - διαβάλλειν τοὺς θεοδόγους ... παριστάν δ' ἔοικε)

Proclus, too, though he missed the sarcasm, was at least fully aware that it is αἱ θεογονίαι (III.156.11 and 22) and ἡ Ὀρφικὴ γένεσις (III.161.3) that Timaeus has in mind, and he builds upon the whole passage an elaborate demonology. In this connexion we may note also that "Necessity " (αἰνάγκη) was not only the name, as recorded by Aetius of the θαύμαν ἢ πέντε κυβερνα in Parmenides' exposition of early Pythagorean theology given in the Second Part of his poem, but is also applied to the mother of the Fates in the manifestly Pythagorean myth of Er in the tenth book of the"Republic" (517). Timaeus, as Professor Taylor says, seems to be deliberately displacing "Necessity" from its pedestal and making it, no longer a goddess, but a mere "underling". Plato thus makes it clear that Timaeus was not one of the Pythagorist "spirituali", with whose superstitions, indeed, neither Socrates nor Plato had any sympathy. Professor Burnet has shown, for instance, that the real point of the "Euthyphro" is to
repudiate any idea that Socrates was a "mystic" of the debased Orphic type. So Adeimantus' scornful strictures upon religion at "Republic" II. 363-364 are levelled particularly at Hesiod and the Orphics, like Socrates' proposed reforms at 379-380. We know that there was a rupture in the Pythagorean Order in its later period, a breach between scientists and mystics, "Pythagoreans" and "Pythagorists", just as in the sixteenth century the alchemists in England divided into two groups, one devoting itself to serious scientific research and the other to mysticism and astrology; and Timaeus is plainly portrayed as one of those in whom the religious side had been superseded by the scientific, like Simmias and Cebes of the "Phaedo". The whole medical and biological interest of the dialogue indicates the same thing, and the matter is placed beyond doubt when we find that Timaeus' geometrical analysis of the four "elements" at 48e ff. is simply an illustration of that attempt to fuse Empedoclean biology and Pythagorean mathematics which was the distinctive feature of later Pythagoreanism (see Burnet, "Early Greek Philosophy" 3, pp. 273, 279).

How far, then, are we entitled to assume that such a record of fifth-century Pythagoreanism embodies doctrine with which Plato himself was in agreement? Now the "Timaeus" is manifestly to a large extent an elaborate development of the doctrine of the "Phaedo" that νοὸς ἐστὶν ὁ διανοούντων τὰ καὶ πάντων ἀμύνος (97c) and that
consequently all details of nature are so arranged because "it is best they should have such an arrangement" (ἐπὶ τὸ
βέλτιστον αὐτὰ ὁμοιὸς ἐξήν ἐστίν, ὀποτὲ ἐξήν, 98a). Socrates in his early days, as he himself records in the
"Phaedo" (95e-99d), had interested himself in natural science - a fact which is borne out by Arisophanes' "Clouds"
as well as by the familiarity with early cosmological theories which is attributed to Socrates at, for instance,
"Lysis" 213 a ff. He had been particularly attracted by the doctrine of Anaxagoras, who had represented νοὸς or
Mind as the motor-energy of the cosmos. Socrates was chagrined, however, to find that Anaxagoras did little to
uphold purposive government of the universe but had recourse instead to mechanical causes like "airs and
ethers and waters and many other absurdities" (98c). None the less Socrates did not abandon the idea of
government by the θεόν καὶ
θεόν and he tried to account for this by what he humorously
called his δεντροφις πλοῦς, the theory of "Forms". The
"Timaeus" seems to be a plain attempt to supply what
Socrates desiderated, the application to nature of the idea
of intelligent contrivance, and this again seems to be the
reason why Plato represents Timaeus as expounding a
teleological cosmology in response to an appeal from Socrates.

Not only, however, is the Timaeus largely a
commentary upon the text of "Phaedo" 97-99, but it is obvious,
further, that the presupposition underlying the whole
discourse of Timaeus is the thesis of "Laws" X.893b-899c,
that soul is the only entity possessing spontaneous activity (ἡ δυνατὴν συνειδητὴν κινήτην κίνησιν, 395e) and, as such, the sole "causa movens" of all physical movement, and that the soul which moves and orders the world is the ἀριστή ψυχή called God. Apart from "Phaedrus" 245 cf., where Socrates makes the self-moving character of the soul an argument for the soul's immortality, we can see Plato "cutting steps" towards this doctrine at "Sophist" 248e, where the "Eleatic stranger" declares that it would be incredible for "absolute being" (τὸ παντελῶς ὄν) not to have "motion and life and soul and understanding" (κίνησις καὶ σέμι καὶ ψυξί καὶ φρόνησις). These words do not imply a new theory of "animated Ideas", as Lutoslawski ("Origin and Growth of Plato's Logic") supposed. The passage only means that soul, with its attributes of life and motion, must be part of Reality just as much as unchanging and unmoving entities such as the "Forms". This conception of the soul as "causa movens" is at the bottom of Timaeus' description of the soul at 34e as the "queen and mistress of the body" and as "earlier and elder than the body", which is indicative, as Proclus rightly explains (II.113.3, cf.II.114.33), of the soul's ἐπιρημοὶ ὡς αἰτίων πρὸς αἰτικτῶν. We have here implied, in fact, the Academic definition of ἀνθρωπος as ψυχή εἰσαμαι κρισιμή, quoted by Proclus himself at III.309.31. At 57e Timaeus definitely asserts, in the spirit both of the "Phaedrus" and of "Laws" X, that motion presupposes both τὸ κινοῦν and τὸ κινοῦμενον. Actually, even this
conception of the soul as "self-moving" is not an original development on Plato's own part, since it is traceable, as Aristotle tells us at "De Anima" 405a 30, to Alcmaeon of Croton, but the fact that the thought is given definite scientific exposition in the "Laws", Plato's own "magnum opus" and a work which cannot be far separated from the "Timaeus" in point of date, justifies our concluding that we have presented in the main thesis of the "Timaeus" a reproduction and application of a cardinal Platonic doctrine. Soul is the καρδιά and God is the κόσμος in the "Timaeus" as much as in the "Laws", with this difference, that what the "Laws" seeks to establish scientifically by logical or "theoretic" judgement is accepted in the "Timaeus" as an article of conviction or religious "trust", just as in a similar spirit Timaeus does not use scientific reasoning to prove that the human soul is immortal but regards its immortality, like that of νεών θεών as dependent simply on the goodness and will of God (41a-b). It is by this supposition of a supreme and perfectly wise and good Soul who contemplates the "Forms" and reproduces them in the sensible world, that the "Timaeus" gives content to and elaborates Socrates' conviction in the "Phaedo" that "the good and the ought" is the true rationale of the structure and processes of nature.