

The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the
Extension of the Religious Parliament Idea

Founded by EDWARD C. HEGELER

VOLUME XLI (No. 5)

MAY, 1927

(No. 852)

CONTENTS.

	PAGE
<i>Frontispiece.</i> Pythagoras.	
<i>Dante and the Divine Light.</i> JONATHAN WRIGHT.....	257
<i>The Faith of Humanism.</i> CURTIS W. REESE.....	270
<i>The Names of the Archangels.</i> ELLEN CONROY McCAFFERY.....	278
<i>Differentiation of Indian Cultures According to Geographical Areas.</i>	
DR. GEORGE H. DAUGHERTY, JR.....	288
<i>The Meaning of Life.</i> PROF. J. K. MAJUMDAR.....	306
<i>The Soul of Art.</i> HARDIN T. McCLELLAND.....	314

The Open Court Publishing Company

Wieboldt Hall, 337 East Chicago Ave., CHICAGO, ILLINOIS

Per copy, 20 cents (1 shilling). Yearly, \$2.00 (in the U.P.U., 9s. 6d.)

The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the
Extension of the Religious Parliament Idea

Founded by EDWARD C. HEGELER

VOLUME XLI (No. 5)

MAY, 1927

(No. 852)

CONTENTS.

	PAGE
<i>Frontispiece.</i> Pythagoras.	
<i>Dante and the Divine Light.</i> JONATHAN WRIGHT.....	257
<i>The Faith of Humanism.</i> CURTIS W. REESE.....	270
<i>The Names of the Archangels.</i> ELLEN CONROY McCAFFERY.....	278
<i>Differentiation of Indian Cultures According to Geographical Areas.</i>	
DR. GEORGE H. DAUGHERTY, JR.....	288
<i>The Meaning of Life.</i> PROF. J. K. MAJUMDAR.....	306
<i>The Soul of Art.</i> HARDIN T. McCLELLAND.....	314

The Open Court Publishing Company

Wieboldt Hall, 337 East Chicago Ave., CHICAGO, ILLINOIS

Per copy, 20 cents (1 shilling). Yearly, \$2.00 (in the U.P.U., 9s. 6d.)

Messrs. Longmans, Green & Company

Announce the Publication
of a Complete

INDEX

of

The Philosophical Review

Volume I to XXXV

(1892-1926)

Price \$3.00

LONGMANS, GREEN & CO.

55 FIFTH AVENUE

NEW YORK



PYTHAGORAS. (569-471 B. C.)

Fronispiece to The Open Court.

THE OPEN COURT

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and
the Extension of the Religious Parliament Idea.

VOL. XLI (No. 5)

MAY, 1927

(No. 852)

Copyright by THE OPEN COURT PUBLISHING COMPANY, 1927

DANTE AND THE DIVINE LIGHT

BY JONATHAN WRIGHT

THE student of Aryan languages finds reason for accepting the belief that light resides within the meaning, within the very structure of our word for the divine,—*Daevos*, “the Bright Ones”, but it has not been my fortune to find, or at least to remember, any discourse by the modern ethnologist as to the ideas of primitive man in regard to light. Perhaps in taking up a consideration of limited scope how in times which have elapsed since writing began civilized man began to speculate about it, it will suffice to take notice of Homer,¹ when speaking of the gods saying:

“They are wonderfully like the rays of the sun.”

This is a gleam of light we perceive from far back of Pythagoras and I doubt not if I was as industrious as I should be there might be found even in literature a path of light leading from that divine ray blazing in the *Iliad* up to Pythagoras but it probably would be a very dim one through the Dark Ages of Greece to that luminary of the dawn. I am content to show here that several hundred years before Pythagoras was born (570 B. C.?) Homer definitely associated light with God. Back of him we doubtless should soon run into Sun worship, so often found among more primitive men than the Achaeans.

It so happens that an article² by Miss Hilda Richardson has recently appeared on the Myth of Er and I shall take advantage somewhat of that to introduce what I shall have to say of early Greek thought about light, chiefly Pythagorean, though we shall not need to pursue the Myth of Er throughout all its details in the learned article of Miss Richardson nor in the Republic of Plato³

¹*Iliad*, X, 547.

²*Classical Quarterly*, Vol. XXI, 3, 4, July-October, 1926.

³614 b. 3.

whence of course she derived it. It may be as well to say that in the tale Plato tells, Er was slain in battle and his body lay ten days on the field before it was carried home to be burned the twelfth day on the funeral pyre, but before that he returned to life and told of the journey he had been in the other world,—to Heaven and Hell. In the course of it at one place he could look down through the whole of the heavens and see a blaze of light stretched out like a pillar, which bound the heavens together.

We have been taught by Leaf, the most plausible of Homeric exegetists, to regard those who came after Homer or rather after Troy as revolting from the Achæan aristocracy of his day and reverting in their ideas to the ruder and cruder conceptions which had prevailed among the men the Achæans had found in the basin of the Mediterranean and subjugated. After the disasters of Troy and especially of the return from it ensue the Dark Age which lay between Homer and Pericles. Out of this older wellspring of primitive life there emerged much of the Orphic and Pythagorean mysticism from which Greek thought was never subsequently entirely free and which sprang into a blaze of neoplatonism that ended all ancient thought. When Pythagoras began to speculate on cosmology and theology light became a very prominent element of his theories. As we gather from the Myth of Er he believed that the earth held at its center a fiery core and as the earth was the center of the universe, this, therefore, was more exactly the true center and this is said to have been also the belief of Empedocles and Parmenides. It seemed a reasonable hypothesis to them it was the equilibrium held it in place. Aristotle did not so interpret the thought of the Pythagoreans: "At the center they say is fire and the earth is one of the stars creating night and day, by its circular motion about the center. They construct another earth in opposition to ours which they call counter earth."⁴ (*anticthon.*) We may suppose this was Aristotle's interpretation of the equilibrium, but he regards the scheme as having no foundation in observation. He comprehends all Italian or Sicilian philosophers under the name of Pythagoreans, but this will have more apparent than real significance when we come to speak of Dante. There was Pythagoras of Croton and Parmenides at Elea and Empedocles in Sicily, whom Bignone regards⁵ as only part Pythagorean.

⁴*De Cælo*, 293 a. 20-25.

⁵*Pensiero Greco*, Vol. II. *Empedocle*. Milan, 1916.

Zeus was the fire, according to Aristotle, in Miss Richardson's interpretation, but Aristotle quotes the Pythagoreans as regarding the fire as the guard house or temple of Zeus, which would look as though the fire was only an attribute of Zeus. However that may be, if the fire was at the center of the earth science, co-extensive with theology for Pythagoras, might well protest the surface of the earth would be without light whatever the nature of the central fire, so it provided for fire at the periphery according to Aristotle and this is the important thing for Miss Richardson dealing with the Myth of Er as Plato tell it, evidently adopting it from the Pythagoreans, for he too was partly Pythagorean. It may have come to him through Parmenides, the expositor of the Italian school, for despite the positive assertion of Diogenes Laertius, it seems probable Pythagoras wrote no books or they all perished with him, but according to Philolaus, another Sicilian and one with whom Plato was in intimate contact, there is this surrounding fire in the Pythagorean scheme. Aetius thus quotes him and probably Philolaus is the source of Aristotle's information, but Parmenides very likely added something of his own and this caused the confusion. Simplicius, the first commentator of Aristotle, dwells upon the vacillation of Parmenides to whom however, we owe apparently the statement that Necessity is a goddess and has her seat in the central fire, but Miss Richardson scarcely knows where to place her. I have alluded to this elsewhere. Suffice it to say here that we can well believe this was an evolution, perhaps of Parmenides, toward our conception of Natural Law, though finally it became hopelessly entangled in the discussion as to Free Will, but in various passages, even in Homer, we find the great gods, even Zeus, great gods as they were, submissive to Fate. Yet this Pythagorean doctrine we suspect finds more than itself in Parmenides.

Not to wander further in the track of such illustrations of the vagaries of Pythagorean doctrine in Parmenides, Cicero⁶ says he comments on the glow of light making a circle which spans the heavens, which he calls God. In this Miss Richardson thinks she finds the origin of Plato's remarkable description of light at the periphery of the universe as well as at the center in the Myth of Er and perhaps it is not going too far to think of the terms in which Plato illuminates his theory of Ideas as the Realities in that marvellous and much better known passage which opens the seventh book

⁶*De natura deorum*, III, 28.

of the *Republic*, the counterfeits which impress our senses being but the shadows cast by the divine light behind Realities in the cave. However that may be, it makes trouble for her in adjusting it all with the Myth of Er, which he tells in the tenth and last book, though so highly allegorical did Plato quite evidently intend both incidents one wonders any pains should be taken by commentators to render them consistent. There seems from the same point of view no objection to seating a god, or goddess either, at the center, and yet binding the heavens together at the periphery with bands of light.

It is a trick of the artist in Plato to seem to particularize in the description of these bands, likening them to the straps which run around a trireme somehow to bind it together. The significant thing it seems to me is to note that Ananke or Necessity puts a limit to the extension of the light and to the number of stars. Infinite as the twinkling stars seem, they are but the souls which once inhabited the bodies of men on this earth. Not to lose touch with Dante as to the question of light, we may still take note that he seems to pack both heaven and hell, at least in places, about as full of souls as they will hold. With all the matter and energy or both rolled in one that our men of science are now losing to stellar space without showing any return from it we sometimes entertain some concern for a universe they and Plato and Dante agree has its limits. However, neither Dante nor Plato, though the latter sets Ananke on guard, seem to make any provision for the ever increasing demand on it, any more than we have been able to do for our infinite number of electron sparks that fly from countless suns through countless ages into space. Plato's theory of Metempsychosis, which as well as his celestial physics, he must have from Pythagoras, would seem to take the strain off the capacities of heaven and hell, both in the way of manufacture and storage, but despite Plato's putting Ananke on guard, and like Einstein conceiving of a limited universe, Metempsychosis was not invented as a resource for saving. This goddess, Necessity, is a part of the ever existing problem of whence and whither, which both science and religion have practically ignored. The minds of men flutter in their cage now as they did long ago. The Greeks enlarged the cage as much as possible, but they saw the bars plainly. Dante ignored them and even as scientists so do we. His was not a logical mind and neither are ours. It is to the credit of the Greeks that they refused a final acquiescence in Pytha-

gorean science at a far earlier stage of thought about it than we are in. It became not the science only but the theology of Dante, but Dante was a poet.

To attempt to find a special seat for Law or Necessity bothers the modern historian of ancient thought, who, materialist as he is, takes too literal a view of Greek expositions. Miss Richardson frets much that she can not clearly make out just how those trireme straps used to be adjusted by the skilled Athenian naval architects and she is much concerned that some modern critics locate Ananke at the center and some at the circumference. Finally, like her sex, with more insight than logic, she lodges Ananke in at least two places at one and the same time. For my part I refuse to believe the Greeks thought in terms like that. Ananke was the symbol of Law prevailing in and pervading all things. They thought and made their expositions in terms of allegory and Miss Richardson is at liberty to adjust one or as many goddesses as she pleases in as many places as she chooses, but she modestly only asks for quarters in two places,—in the center and at the periphery too. Aetius and Theophrastus before him gave her permission to regard Ananke “not as dwelling in the fiery circle or crown, but as *being* the fiery circle or crown”, which comes to the same thing in the mystical thought which Dante grasped. He often refers to the effulgence of the souls in Paradise and to God as the source of the light and not infrequently as the light itself. I see no reason why this was not essentially the attitude of Pythagoras and perhaps of Parmenides. There seems evidence that the latter already diverged from the more literal beliefs of the Master and in Plato the allegorical is plainly in evidence, but the mystical was by no means absent from the conceptions of Aristotle either, largely influenced as he was by the science of Eudoxus and Callipus. Yet their physics was hardly less wide of astronomic truth than the mystical astronomy of Pythagoras.

However easily one may err in failing to understand that, though the line between allegory and fact is often a wavering one, Plato accepted a large share of the Pythagorean science as reality, we must ever bear in mind how largely ignorant we are what that earlier belief exactly was. The testimony of Heracleides, as Aetius relates it, gives us the assurance, if we needed any, that the individual soul was of the nature of light. As to the world soul that seems to be implicit in the words of Plato as we have them, but

this further assurance from one after Plato who was both a Pythagorean and a Platonist is welcome enough. In the Myth of Er, we see the wavering of the line. Plato proclaims it a myth, yet he embodies with it ideas which he evidently held as realities. Sometimes the fire seemed to surround the world as a band and sometimes the universe is wrapped in it as in a cloak. The central fire must pierce the earth as a band or column running through from pole to pole, however it is expanded externally. Now this necessary conception has interesting connotations. The suggestion has seemed natural that the idea sprang from a myth of which we have more trace than of that of Er. It was that of the pillars which support the sky. Hesiod before Pythagoras probably adopts some much older, possibly an Egyptian myth, for Shu of Egyptian mythology had a counterpart in the Atlas of the Hesiodic Theogony.⁷ This without a doubt is of very ancient origin and after the ruin of the Achaean power levelling the walls of Troy, the common people or Pelasgians, if you will, came to their own again. They belonged not to the Nordics but to the Minoan race, we are told, and this tale of Atlas holding up the sky we may easily be allowed to conjecture was Hesiod's interpretation of a myth older than Homer's Troy, but one which long after Troy had fallen had its influence on Pythagorean science. In the *Odyssey*,⁸ however, Homer knows of Atlas, who in turn knows of the deep bottoms of every sea and is the father of Odysseus' lady friend, Calypso.⁹ He seems to have pillars which stand around the earth holding up the heavens. There is an ambiguity about just how Atlas does the job, which Aeschylus tries to dispel¹⁰ apparently by imagining Atlas had only one post and kept his shoulder pressed against that, "with the pillar of Earth and Heaven bearing upon his shoulders, no sweet burden", Headlam translates it. We may avoid the untimely joke, but we must realize as thus fabled it was no burden of light he bore and the four Egyptian pillars out of which this myth sprang were not ones of light to bear up the sky, but almost in the time of Aeschylus we are asked to believe it was somewhat out of this tale that Pythagoras fashioned his concept of eight and out of it grew the mechanism of the Myth of Er.

⁷ 516. 746.

⁸ I. 52.

⁹ VII. 245.

¹⁰ *Prometheus Bound*, 363.

It is interesting to find even Aristotle pursuing¹¹ the Atlantean myth. He seems to think it suggests something reasonable to picture Atlas as a diameter, a mere geometrical expression, which has its significance in the tradition of the penchant Pythagoras had for geometry—Atlas a mere diameter “twirling the heavens about the poles” and thereby it seems to me we really do gain a feeling of affinity with that core of blazing light bored by Pythagoras through the earth and sticking out at each pole and leading to the peripheral fire, and we may easily imagine Aristotle discussing with his master Plato the meaning of the Pythagorean myths of Atlas and Er and the Egyptian views. It must be confessed Plato using them allegorically was more successful with them than Aristotle using them in astronomical science.

The poles, with which the light was associated in these theories, if we may so call the myths before the time of Aristotle, and the bands of light around the universe, suggested doubtless by the Milky Way, are somewhat lost in the imagery of Dante, but the Milky Way as an astronomical phenomenon impressed his poetical fantasy and the Light as the Divinity Himself and as the emanation from Him is clearly an uncontaminated concept of Pythagoras. Like Aristotle we in science are seeking plausibility for the undying visions of poetic natures of such as Pythagoras, Plato, Dante in transforming the ancient fire into energy and indeed for the scientist, if mystically moved this may emanate from God as Light. It is solar energy and is described by Professor Pupin “as the breath of the sun breathed into the nostrils of terrestrial clay so that it may also live”. Thus from the pure scientist we get the concept of the world soul and the soul in each one of us, much as Plato had it from Pythagoras.

Elsewhere¹² I have dwelt with some emphasis on Dante’s possible debt to the Arabians. It really seems like carrying coals to Newcastle to think of the Arabians bringing Pythagorean inspiration to the boot heel of Italy, where Pythagoras lived and thought and suffered, not too far from Florence where Dante was born nearly two thousand years later. Between that birthplace of the great Florentine and the scenes the great Samian had before him at Croton lay the azure coast and the marvelous lights of the bay of Naples, a region where light might be spontaneously worshipped more than twice in

¹¹*De Motu Animalium*, 699 a 26.

¹²*Science*.

the history of thought. It needed no Arabians to bring the worship of light to Dante. It is thus rather than historically we must think of Dante involved in the maze of images Pythagoras taught to the Italians basking in the sunshine from the Straits of Messina to the Ligurian coast. The light which surrounds the blessed Paradise¹³ we find spoken of as a vesture or loving incasement of light in which all are wrapped and on which is conditioned their view of God.

“.....*amore*
si raggera d'intorno cotal vesta.”

He speaks of its coming from a source that is not extinguished in expending it and in this we get a glimpse of a thought he has from Aristotle's Unmoved Mover, but Dante plainly reveals his own God as the Mover of the heavens revolving around a stationary axis.¹⁴ Substance and its attributes of motion by which it is revealed to us all alike are combined in light alone.¹⁵ Perhaps he has this from the catholic version of the Epistle of St. John, though even so very probably the ultimate source is in Pythagoreanism.

Parenthetically it should be realized, though I may have an opportunity of taking it up more systematically elsewhere, that heat was of course then so associated with light in the divine conception of both Pythagoras and Dante that we can not separate them. We still have difficulty even technically while we know the processes of life maintenance and rejuvenescence and generation are inextricably bound to both. Ultimately there is no germination and persistence of life without light any more than without heat. Light then is a part of that mystery of life around which all religions everywhere have always built their temples. As late as Herschel, a hundred years ago and a little more, it was questioned whether light essentially was different from radiant heat and it was not until Langley searched carefully the lines of the solar spectrum that he was able to find where light left off and heat still persisted. We are much bothered to find evidences that nature experimenting with life processes has invented a way to make light without heat, which we can not do. We are still confused with the mental effort we are obliged to exercise in conceiving of light vibrations that give no light, so far has science outstripped our senses.¹⁶

On the other hand fire also was embodied, usually without fun-

¹³*Paradiso*, XIV, 39.

¹⁴*Paradiso*, XXVII, 106.

¹⁵*Paradiso*, XXXIII, 88.

¹⁶Randall, H. M., "Infra-red spectroscopy," *Science*, February 18, 1927.

damental distinction, in the conception of light by the ancients. Etherial vibrations, the forerunner of our modern conception of cold light had no part, or at least but very feeble beginning, in their natural physics and we have yet to see whether life processes can manufacture light at the lowest temperatures possible for them in other functions. The idea of the true nature of light is still very much in the air. We are satisfied with the wave theory for its origin, but for its photographic phenomena we have still to register a corpuscular theory. It is not the poets only then who use a conception of light in a loose manner. Somewhat in this way light has always been a symbol. It has always played the largest of parts in the allegories of biblical origin. The Quaker's "Mind the light", and his reference to the "light within" finds frequent antecedents in the *Commedia*. It is light and joy and virtue are mixed in the body,¹⁷ Beatrice says to Dante. "I see well the eternal light shines in thy mind,"¹⁸ and when she seems to be speaking of the angels and the heavenly bodies. "We are all come of the larger body in Heaven which is pure light,—intellectual light,—full of love."¹⁹

We need not return to the Myth of Er, which Miss Richardson has carried in her discussion beyond the interests of this paper and before we return to Pythagoras from whom we have been able in her analysis to derive so much which has been useful to us, we may turn for a moment to the Arabian conception of Paradise revealed in the book of Miguel Asin which I have reviewed elsewhere. As has been said the visions of Dante may have come from Arabian sources, but as to those of light, no one need take this very seriously who knows the language of the Christian scriptures even if the tradition of Pythagoras in Italy is only a tradition²⁰ instead of an inheritance. In one of the versions of the *Miraj* or Ascension of Mahomet to Heaven the Moslem legend speaks of the dazzling brilliance of the light blinding those that behold it and Asin²¹ draws attention to the fact that in both stories (the Moslem and the Dantesc) God is depicted as a focus of ineffable light. In the one as in the other very many more examples might be cited than I have room for here but a comparison of the Islamic stories with those

¹⁷*Paradiso*, II. 143.

¹⁸*Paradiso*, V. 7.

¹⁹*Paradiso*, XXX. 38.

²⁰Giannelli, Giulio; *Culti e miti della Magna Grecia*. Firenze, 1924.

²¹Asin, Miguel; *Islam and the Divine Comedy*. Translated by Harold Sunderland, London, 1926.

of Dante makes it clear "that in both stories the element of light reigns supreme".

Some of the ancient writers of Islam, as a concession to the sex intoxication of the vulgar after Mahomet, stated there were two heavens for their co-religionists,—one for the spiritual and one for the sensual followers of the prophet. Fortunately we need here have no dealings with the latter, but to the former belongs the vision of God as Light. In the Moslem *Futuhāt* each in his respective grade and place and magnificently arrayed falls prostrate before the dazzling light and they await the epiphany of the Lord. It is one of the many similarities of the exposition of Ibn Arabi with that of Dante, which Asin has made so suggestive of marked Arabian influences in the *Commedia*, and it is Ibn Arabi who furnished the Islamic civilization with idealistic conceptions of women, which Dante has enshrined forever in Beatrice.

Now it is necessary to say something of the possible ways, outside of books, the tradition and the thought of Pythagoras was preserved among people after the collapse of the Graeco-Roman civilization. We can not particularize as to light worship and it is not absolutely necessary to seek the preservation of it outside of the texts, which were open to Ibn Arabi and Dante too. They both might have had it from the neo-platonists if not from more ancient writers. We are apt to forget the eastern provinces of the Roman empire were in a position to retain its traditions and especially its religious traditions long after northern barbarians overran the pro-consulates in the west and keeping this in mind is in itself a suggestion of the path to Dante from Ibn Arabi. Long before its fall, Asia had furnished Rome with most of its religions, but archaeology has revealed the Pythagoreans there among the Christians in the first century by the discovery of the Basilica at the Porta Major.²² How long after the advent of Christianity in Rome the influence of the Pythagoreans was important in the evolution of the budding Christian faith there we do not know from archaeological evidence, but it has long been familiar to those who have studied its origins in other ways that through some channels, never very clear, Pythagorean influences pervaded much of the early gospel. From these excavations we learn that as early as the reign of Claudius (52-54 A. D.) the foundation of a church was laid upon a basilica which evidently had been a temple of the Pythagoreans, a rather striking

²²Carcopino, Jerome, *Revue de deux Mondes*. 15 Oct.—15 Nov., 1926.

symbol of the springing of one faith from another. We know that Nigidius Figulus, who flourished some 60 or 70 years B. C. at Rome had been their prophet, teaching as the inscriptions in the basilica show how the sun draws to itself the pneuma of the elect and we get an indication even then of a faith not far removed from that of Dante. How far the ideas of Pythagoras prevailed among the people and the compatriots of Porphyry and Iamblichus, who wrote lives of him, we do not know, but the thoughts of these learned men were mightily moved by him.²³ Porphyry died in 301. He was a Tyrian by birth and a Semite and he frequented both Rome and Sicily. Iamblichus died in the reign of Constantine about 333 A. D. He lived most of his life in Syria and was more of a Pythagorean than Plato himself. Proclus, who died in 485 A. D. was scarcely less controlled by the ancient doctrines of Orpheus and Pythagoras through Plato. Beyond this it is difficult to go, for learning of all kind mouldered at Byzantium and at Alexandria, but less than a hundred years after the death of Proclus Mahomet's career began.

In less than two hundred years apparently they began to construct myths of Mahomet's visit to Heaven and Hell. So completely was the old order of things rooted out of Italy, where Pythagoras lived and taught, that beyond the traditions of him preserved by the neo-platonist authors of his life and propagators of his philosophy we are not free to suppose his influence survived in any other way than through the Scriptures and a few classical authors to influence Dante,—through no local traditions whatever, but through the airs, waters and places which made Pythagoreanism flourish in Italy in the first place. From these Dante may well have drawn it largely anew and we must be a little cautious in freely following Asin's suggestion that much of it came through the Arabians, so far as light worship is concerned at least. It is suggested that the passage in the 2nd Epistle of the Corinthians, xxii. 2-4, in which St. Paul refers to his having been wafted to the third Heaven was the nucleus around which some of the Moslem legend grew. At least it was confidently asserted that the vision of St. Paul in the Apocalypse reached western Europe through Islamic adaptations of the Greek Apocalypse. Not to step too far out of the path of light and lose touch with Pythagoras too, as a trace of him is discoverable

²³Whitaker, Thomas, *The Neoplatonists*. 2nd ed. Cambridge Univ. Press, 1918.

in Dante, one may take note that in the *Inferno*²⁴ it is found possible for souls to inhabit trees on the leaves of which Harpies feed, thus causing anguish to the sinners. I think Egyptologists are of the opinion that these Harpies which are of course taken from the Aeneid, are of the race of souls themselves which haunt the tombs of Kings, but however that may be Boccaccio²⁵ feels called upon to set up an elaborate defense of Dante for making thus an exposition of Metempsychosis. If, living scarce a generation or so after Dante, he had any suspicion of the indebtedness of his great predecessor to legends of Mahomet, his defense would have been still more elaborate. Dante, after his death, was charged with heresy and sacrilege, but not that they were of Islamic origin.

However, it is more in line with our subject to take note that before Dante's time in the prae-Renaissance there were other ideas of the origin of light, more circumstantial though less poetical than appear in his poems. We have seen this as fire-worship disappearing behind Heraclitus and Zoroaster in the prae-history of sun worship, but Bartholomew of England²⁶ (1230?) drawing on the authority of St. Augustine among others declares light is a distinct substance created three days before the sun and moon which do but reflect it and in this again we are privileged to suspect the reflection of Pythagoras, whence St. Augustine may have had it, via the neoplatonists. Both he and Albertus Magnus after him felt freer doubtless in quoting from St. Augustine than in deriving their science from Pythagoras, since so much of the latter's wisdom came through the Arabians, but they felt at liberty to criticize him for putting souls in stones on the strength of the phenomena of the loadstone. When they got hold of a bit of supposedly correct Pythagorean science they credited it to St. Augustine, but the incidents serve to illustrate how the supposed concepts of Pythagoras were alive in the minds of the Middle Ages. Indeed Arnold of Villanova passed for the adept of a Pythagorean sect which extended through Italy. He and Guido Cavalcante, Dante's friend, both had trouble about their skepticisms as to orthodox beliefs and if in the *Romaunt of the Rose* (1225-1282) the author was familiar enough with the Arabian Albumansor, Dante was probably as wise, but the theories of Pytha-

²⁴XIII, 101-2.

²⁵*Il Comento di Giovanni Boccacci sopra la Commedia*, Lezione 49.

²⁶Thorndike, Lynn, *A History of Magic and Experimental Science*. 2 vols. MacMillan, New York, 1923.

goras were, as we see, accessible to him, without direct resort to the Arabians.

It is not, however, for the modern student to forget on how exceedingly slender a basis of fact rests our knowledge of Pythagoras and his doctrines. In the *Convivio*²⁷ Dante makes formal mention of Pythagoras, but places him as far back as 750 B. C. instead of 550 B. C.—“one whom people now name for his fame”, but he gets him mixed up with Solon and Socrates. If, however, he could have had his information direct from Diogenes Laertius his knowledge would have been open to ancient and modern criticism which has almost relegated Pythagoras and his views to the realms of pure myth. However much we may feel inclined to doubt and reject any specific portion of it the circumstantial evidence has some cohesiveness and claim to probability. Asia was the land of religions and of Zoroastrianism probably in the age of Pythagoras, we know now from other than classical sources. Before he came into Italy from Samos, Diogenes Laertius puts him in contact with the Chaldeans as well as with the Egyptians and according to Plutarch the legends in his day made him also descend into Hell. So he was a person at least of wide and varied experience and when we think of his reputed travels, with our present knowledge of the history of religions we find it quite natural for Plutarch to note that he held the view that the nature of the soul is light. So whether or not we are to believe with Asin that Dante and Dante's age got their knowledge and their inspiration through the Arabians, we can scarcely avoid the conclusion that ultimately it came as to light through Pythagoras from the land whence a thousand years later sprang the creed of Islam and the race of Mahomet.

²⁷*Il Convivio*, XI, 15.