

*Pythagoras. Leben, Lehre, Nachwirkung.* By Christoph Riedweg. München: C.H. Beck, 2002.

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Christoph Riedweg has offered us a well written introduction into a vexed 'Pythagorean problem'. Published in the popular series 'Denker der Antike', it is intended to familiarize a wider audience with contemporary scholarship on the most controversial figure in early Greek philosophy. The first part of the book treats the ancient stories and legends about Pythagoras (13-60); the second reconstructs a picture of the historical Pythagoras (61-128); the third is devoted to the early Pythagorean community and to the individual Pythagoreans of the 5th-4th centuries (129-149); the last briefly sketches a history of Pythagoreanism in antiquity and its influence on the Renaissance and early modern thinkers (150-174). A useful chronological table shows many of the relevant figures, although the important early Pythagoreans Menestor and Hippon are missing, and Archippus and Lysis are misplaced. The bibliography is rich and well-selected.

Riedweg presents a picture that became popular following W. Burkert's epoch-making *Lore and Science in Ancient Pythagoreanism* (Cambridge, Mass., 1972), according to which Pythagoras was predominantly a religious thinker, very close to Orphism. He founded a sect, or a secret society, where his followers learned his oral doctrines and led a life regulated by hundreds of strict and absurd taboos. Developing and modifying this theme, Riedweg's Pythagoras is no longer presented as an ecstatic 'shaman', but as a more respectable 'charismatic', who deserves a place amongst the Presocratics (99). Whereas Burkert radically denied any involvement of Pythagoras and the early Pythagoreans with science and philosophy, Riedweg is more generous in this respect. But peaceful coexistence in his book between Ionian *historia* and Pythagorean religious speculations, taboos and number mysticism is achieved mostly by changing the criteria for what is counted as Greek natural philosophy and science. Between Anaximander's geometrical cosmology and Parmenides' deductive metaphysics comes something unexpected: Pythagoras' half-mythical lore, born out of the exegesis of the Orphic theogony (101-103). There is no need to deny that Pythagoras' *religious* teaching was influenced by Orphism, as was the case with Empedocles. The problem is that one cannot explain Empedocles' physical, zoological, embryological, and botanical theories by referring to the Orphic doctrines. The home of these theories was Presocratic natural philosophy and Crotonian medicine. To find a common denominator, or a common source, for both poems of Empedocles, *On nature* and *Purifications*, is, in my view, impossible.

The problem with Pythagoras is even more complicated, mostly because in contrast to Empedocles, a) he did not write anything; b) he was prominent in various spheres of life, in-

cluding politics, religion, philosophy and the exact sciences; c) he had many followers who also distinguished themselves in several of these spheres; and d) we possess many more late and unreliable sources on him than we do early and trustworthy ones. How does Riedweg deal with these problems?

He begins his book with an image of Pythagoras that arose only in late antiquity, as a result of the cumulative efforts of the Hellenistic biographers, authors of pseudo-Pythagorica, and Neopythagorean/Neoplatonic writers. The sensational, the exotic, the supernatural and the irrational are the most important elements in this image. To be sure, late authors occasionally used early sources, although very selectively, and many legends about Pythagoras were in circulation already in his own life time. Obviously, Pythagoras was the kind of person who attracted legends, even if originally they were not connected with him: Andron of Ephesus (4th century BC) ascribed to Pythagoras the same miracle stories that were told earlier about Pherecydes of Syros. Given the inner logic of development of a narrative genre, the late biographies of Pythagoras accumulate this legendary material, especially because Porphyry and Iamblichus were not interested in the historical Pythagoras. Their ideal of philosophy already implied a religious way to the truth unknown to the Presocratics. Similar transformations happened with Homer, but one wonders whether it would be reasonable to devote a quarter of a book on Homer to the Stoic and Neoplatonic allegorical and mystical interpretations of his poems.

This last point is especially pertinent because the second part of the book, 'In search of the historical Pythagoras' presents essentially the same image of Pythagoras as the first. In fact, much more consistently than any scholar before him Riedweg assimilates Pythagoras' philosophy with Orphism and with superstitions known from the so-called Pythagorean *symbola* (In antiquity this was attempted by Iamblichus: for *symbola* as an essence of Pythagoras' philosophy see Iambl. *VP* 81-82.) Religion occupies the central place in Pythagoras' activities, and Riedweg makes all the other parts of his work revolve around this theme. Pythagoras' politics, philosophy and science are thereby deprived of their independent history and logic, and become meaningful only in religious-mythical context. The exact sciences – geometry, arithmetic, astronomy, and harmonics – which were the field of Pythagoras' most significant discoveries, are reduced to a "speculative number theory with certain mythical characteristics" — which, in Riedweg's view (120), is still a science, at least in the sense of Lévi-Strauss' 'pensée sauvage'! He does not mention the sphericity of the earth, or the discovery of the five celestial zones, or the identification of the Morning and Evening stars with Venus, which are ascribed to Pythagoras in our sources. There is nothing about the deductive theory of odd and even numbers, as preserved in Euclid's *Elements* (IX, 21-34), and nothing about the early Pythagorean theorems and theories, as mentioned in Eudemos' *History of geometry* (fr. 136-137 Wehrli). When something of this kind appears in the book, such as Pythagoras' theorem, it is

not treated in the context of the history of Greek mathematics, i.e. as development of Thales' attempts to prove deductively certain simple geometrical propositions, and as a prerequisite for Hippasus' discovery of the irrational numbers. Hippasus' discovery is given half a line (144), Thales' geometry even less. Instead, Riedweg mentions twice that Pythagoras' theorem 'was already known in Mesopotamia in 1500 BC' (44, 119). In fact, what the Babylonians knew was not a general geometrical proposition, let alone its deductive proof, but only an empirical arithmetic formula for *some* Pythagorean triplets (i.e. 3, 4, 5; 5, 12, 13, etc). But why is this formula discovered in Babylonia thousand years before Pythagoras more relevant for understanding his mathematics, than what was worked out in Greece by his immediate teachers and students?

Similarly, Pythagoras' opposing principles, *peras* and *apeiron* are forcibly connected with the Orphic theogony (117-118), but thereby lose their close relationship with Anaximander's *apeiron* and Anaximenes' *apeiros aer*. As a result, early Pythagorean cosmogony, according to which *apeiron*, understood both as *kenon* and as *pneuma* is inhaled by cosmos and limited by *peras*, becomes utterly incoherent. Paradoxically, it is Orphism that brings coherence to Pythagoras' ideas and practice, and that is why Riedweg returns to the old and often refuted thesis that Pythagoras himself wrote a kind of Orphic *exegesis*. Although Riedweg does not insist on this thesis, he repeats it many times without offering any new evidence to support it. In fact, new evidence discovered during the last 30-40 years has significantly enriched our knowledge of Orphism, but virtually none of this evidence points to Pythagoras.

In contrast to Pythagoras, no historically known early Pythagorean is connected with anything supernatural, mystical, or superstitious in the reliable part of the tradition. The doctors Democedes and Alcmaeon, the olympionics Milon and Ikkos, the botanist Menestor, the philosophers Hippon and Philolaus, and the mathematicians Hippasus and Theodorus all appear in our sources as being closer to Anaxagoras than to Empedocles. There is no evidence even of their belief in metempsychosis. Riedweg provides a short prosopographical list of these Pythagoreans at the end of the part III (142-149). Are they the same superstitious ritualists who could not travel on the main roads, use public baths, speak in the dark, step over a yoke, sit on a bushel measure, stir the fire with a knife, etc.? Riedweg's unqualified 'yes' to this question underplays a crucial distinction; for whereas the 'rationalistic' image relies on the writings of the individual Pythagoreans and/or on the sources the 5th-4th centuries, the image of a sect with common property, secret and oral doctrines, five years silence etc. only appears around 300 BC – by which time the Pythagorean school had already disappeared – and only reaches its final form under influence of the growing Christianity.

In fact, even in the earliest works on the Pythagoreans pieces of authentic evidence were often mixed with alien material. In the late 5th century, the Milesian sophist Anaximander wrote an *Explanation of Pythagorean Symbola*. Used by Aristotle and later writers, this work

seems to be the original source for most of the Pythagorean ritualistic prescriptions, which regulated, in Riedweg's view, their entire life. But Anaximander did not describe a *way of life* of any (named or anonymous) Pythagoreans. He collected – most probably, from the written sources – what he took to be the 'Pythagorean' sayings and maxims and interpreted them *allegorically*, exactly as he did with the Homeric poems. If he knew of a real Pythagorean who did not break bread, step on nail parings or piss towards the sun, why did he interpret these taboos allegorically? Aristotle believed the literal sense of the taboos to be original, which seems very plausible, but he too had never heard of a Pythagorean really observing them. Except for a few dietary prescriptions, directly related to metempsychosis (abstinence from meat of non-sacrificial animals, from beans, certain sorts of fish etc.) and some burial customs (Hdt. II, 81) all the other taboos appear only in context of interpreting 'Pythagorean' *symbola*.

The origin of Anaximander's collection remains a puzzle. Some taboos are historically attested cult prescriptions, others are common superstitions. Some sayings are of Pythagorean provenance, and some not. His reason for collecting this heterogeneous material under the heading 'Pythagorean *symbola*' seems to have been the same as in Herodotus, for whom all 'similar' religious phenomena have the same origin, namely Egyptian. *Collection (Synagoge)* by the sophist Hippias, another of Anaximander's contemporaries, was specifically designed to collect supposedly similar ideas, taken from Greek poetry and philosophy. Hence, it is equally misguided to discern the realities of the *vita Pythagorica* behind every maxim that appears in Anaximander's book and to claim (as Riedweg does) that Pythagoras' natural philosophy lies behind the saying 'The sea is the tears of Kronos'. Interestingly, when Riedweg attempts to extract the hidden meaning of this saying, he resorts to the very allegorical method of interpretation (100-101) that he abjures in the case of the taboos (91-92). Even more revealingly, his explanation is the same as that proposed by Creuzer (1810) for the Greek mysteries, namely, that Pythagoras spoke in 'mystico-symbolical' language to the outside world, whilst providing his students with a philosophical interpretation of the same sayings. This theory was subjected to a devastating criticism by Lobeck (1829), to which I have nothing to add.

Not all the parts of Riedweg's book are equally influenced by his tendency to reduce Pythagorean science and philosophy to such a level where they can be successfully harmonized with myth, arithmology, and ritual. His exposition of post-classical Pythagoreanism is both informative and well-balanced. But as a whole this introduction should encourage readers to ponder a question that has preoccupied historians of Pythagoreanism for a long time: granted that on the personal level science and philosophy can coexist with myth and superstition, could a *society* founded on ritual taboos really have attracted so many generations of brilliant mathematicians and scientists, whilst failing to produce a 'guru' even remotely like its founder?