The Commentaries of Proclus on the First Book of Euclid's Elements of Geometry Translated by Thomas Taylor (London, 1792) Book I, Chapter 2

Transcribed by David R. Wilkins

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[Thomas Taylor, *The Philosophical and Mathematical Commentaries of Proclus*, Vol. 1, pp. 48–49 (1792).]

CHAP. II.

Concerning the common Principles of Beings, and of the Mathematical Essence, bound[2] *and infinite.*

But it is necessary that, considering the principles of the whole mathematical essence, we should return to those general principles, which pervade through and produce all things from themselves, I mean *bound* and *infinite*. For from these two after that cause of *one*, which can neither be explained, nor entirely comprehended, every other thing, as well as the nature of the mathematical disciplines, is constituted. In the former, indeed, producing all things collectively and separately; but in these proceeding in a convenient measure, and receiving a progression in a becoming order; and in some, subsisting among primary, but in others among middle, and in others again among posterior natures. For intelligible genera, by their simplicity of power, are the first participants of *bound* and *infinite*: because, on account of their union and identity, and their firm and stable existence, they are perfected by bound: but on account of their division into multitude, their copious power of generation, and their divine diversity and progression, they obtain the nature of infinite. But mathematical genera originate, indeed, from bound and infinite, yet not from primary, intelligible, and occult principles only; but also from those principles which proceed from the first to a secondary order, and which are sufficient to produce the middle ornaments of beings, and the variety which is alternately found in their natures. Hence, in these

[2]These two principles, *bound* and *infinite*, will doubtless be considered by the unthinking part of mankind, as nothing more than general terms, and not as the most real of beings. However, as accurate contemplation of the universe, will convince every *truly* philosophic mind of their reality. For the heavens themselves, by the coherence and order of their parts, evince their participation of bound. But by their prolific powers, and the unceasing revolutions of the orbs they contain, they demonstrate their participation of *infinity*. And the finite and perpetually abiding forms with which the world is replete, bear a similitude *to bound*: while, on the contrary, the variety of particulars, their never-ceasing mutation, and the connection of more and less in the communion of forms, represents an image of *infinity*. Add too, that every natural species, by its form is similar to *bound*; but by its matter, to *infinity*. For these two, form and matter, depend on *bound* and *infinity*, and are their ultimate progressions. And each of these, indeed, participates of unity; but form is the measure and bound of matter, and is more *one*. But matter is in capacity all things, because it subsists by an emanation from the first capacity, or the *infinite itself*.

also, the reasons[3] and proportions advance to infinity, but are restrained and confined by that which is the cause of bound. For number rising from the retreats of unity, receives an incessant increase, but that which is received as it stops in its progression, is always finite. Magnitude also suffers an infinite division, yet all the parts which are divided are bounded, and the particles of the whole exist finite in energy. So that without the being of infinity, all magnitudes would be commensurable, and no one would be found but what might either be explained by words, or comprehended by reason[4] (in which indeed geometrical subjects appear to differ from such as are arithmetical;) and numbers would be very little able to evince the prolific power of unity, and all the multiplex and super-particular proportions which they contain. For every number changes its proportion, looking back upon, and diligently enquiring after unity, and a reason prior to itself. But *bound* being taken away, the commensurability and communication of reasons, and one and the same perpetual essence of forms, together with equality, and whatever regards a better co-ordination, would never appear in mathematical anticipations: nor would there be any science of these; nor any firm and certain comprehensions. Hence then, as all other genera of beings require these two principles, so likewise the mathematical essences. But such things as are last in the order of beings, which subsist in matter, and are formed by the plastic hand of nature, are manifestly seen to enjoy these two principles essentially. Infinite as the subject seat of their forms; but bound as that which invests them with reasons, figures and forms. And hence it is manifest that mathematical essences have the same pre-existent principles with all the other genera of beings.

[3][DRW—Here, as elsewhere, Taylor translates the greek word λόγοι (Friedlein, p. 6, 14) as *reasons*. However, in geometry, when used in the sense of the third definition of Book V and the 13th proposition of Book VII of Euclid's *Elements of Geometry*, it is more customary to use the term *ratios*.]

[4][DRW—The Greek text of this sentence, in Friedlein's edition of Proclus's *Commentaries*, reads here as follows: καὶ τῆς μὲν ἀπειρίας οὐκ οὔσης τά τε μεγέθη πάντα σύμμετρα ἂν ἦν καὶ οὐδὲν ἄρρητον οὐδε ἄλογον, οἷς δὴ δοκεῖ διαφέρειν τὰ ἐν γεωμητρία τῶν ἐν ἀριθμητικῇ, καὶ οἱ ἀριθμοὶ τὴν γόνιμον τῆς μονάδος δύναμιν οὐκ ἂν ἐδύναντο δεικνύναι οὐδὲ ἄν πάντας εἶχον τοὺς λόγους ἐν ἑαντοῖς τῶν ὄντων, οἷον τοὺς πολλαπλασίους ἢ τούς ἐπιμορίους. (Friedlein, p. 6, 19–26.)]