

The Commentaries of Proclus on the First
Book of Euclid's Elements of Geometry
Translated by Thomas Taylor
(London, 1792)
Book I, Chapter 1

Transcribed by David R. Wilkins

August 2020

[Thomas Taylor, *The Philosophical and Mathematical Commentaries of Proclus*, Vol. 1, pp. 44–47 (1792).]

COMMENTARIES
OF
PROCLUS.

BOOK I.

CHAP. I.

On the Middle Nature of the Mathematical Essence.

IT is necessary that the mathematical essence should neither be separated from the first nor last genera of things, nor from that which obtains a simplicity of essence; but that it should obtain a middle situation between substances destitute of parts, simple, incomposite and indivisible, and such as are subject to partition, and are terminated in manifold compositions and various divisions. For since that which subsists in its inherent reasons remains perpetually the same, is firm and durable, and cannot be confuted, it evidently declares it is superior to the forms existing in matter. But that power of progression which apprehends, and which besides uses the dimensions of subjects, and prepares different conclusions from different principles, gives it an order inferior to that nature which is allotted an indivisible essence, perfectly constituted in itself. Hence (as it appears to me) Plato¹ also divides the knowledge of things which are, into first, middle, and last

¹All the ancient theologists, among whom Plato holds a distinguished rank, affirmed that the soul was of a certain middle nature and condition between intelligibles and sensibles: agreeable to which doctrine, Plotinus divinely asserts that she is placed in the horizon, or in the boundary and isthmus, as it were, of eternal and mortal natures; and hence, according to the Magi, she is similar to the moon, one of whose parts is lucid, but the other dark. Now the soul, in consequence of this middle condition, must necessarily be the receptacle of all middle energies, both vital and gnostic: so that her knowledge is inferior to the indivisible simplicity of intellectual comprehension, but superior to the impulsive perceptions of sense. Hence the mathematical genera and species reside in her essence, as in their proper and natural region; for they are entirely of a middle nature, as Proclus proves in this and the sixth following chapter. But this doctrine of Plato's, originally derived from Brontinus and Archytas, is thus elegantly explained by that philosopher, in the concluding part of the sixth book of his Republic [DRW—(Plato, Republic, 509d–511e)]. “Socrates, know then, they are, as we say, two (the Good itself, and the Sun,) and that the one reigns over the intelligible world, but the other over the visible, not to say the heavens,

lest I should deceive you by the name. You comprehend then, these two orders of things, I mean the visible and the intelligible?—Glauco. I do.—Socrates. Continue this division then, as if it were a line divided into two unequal segments; and each part again, i. e. the sensible and intelligible, divided after a similar manner, and you will have evidence and obscurity placed by each other. In the visible segment, indeed, one part will contain images. But I call images, in the first place, shadows; afterwards, the resemblances of things appearing in water, and in dense, smooth, and lucid bodies, and every thing of this kind, if you apprehend me?—Glauco, I apprehend you.—Socrates. Now conceive that the other section comprehends the things, of which these images are nothing more than similitudes, such as the animals around us, together with plants, and whatever is the work of nature and art.—Glauco. I conceive it.—Socrates. Do you consider this section then, as divided into true and false? And that the hypothesis of opinion is to the knowledge of science, as a resemblance to its original?—Glauco. I do, very readily.—Socrates. Now then, consider how the section of the intelligible is to be divided.—Glauco. How?—Socrates. Thus: one segment is that which the soul enquires after, using the former divisions as images, and compelled to proceed from hypotheses, not to the principle, but to the conclusion. The other is that which employs the cogitative power of the soul, as she proceeds from an hypothesis to a principle no longer supposed, and, neglecting images, advances through their *obscurity* into the *light of* ideas themselves.—Glauco. I do not, in this, sufficiently understand you.—Socrates. But again, for you will more easily understand me from what has been already premised. I think you are not ignorant, that those who are conversant in geometry, arithmetic, and the like, suppose even and odd, together with various figures, and the three species of angles, and other things similar to these, according to each method of proceeding. Now, having established these, as hypotheses sufficiently known, they conceive that no reason is to be required for their position: but beginning from these, they descend through the rest, and arrive at last, at the object of their investigation.—Glauco. This I know perfectly well.—Socrates. This also you know, that they use visible forms, and make them the subject of their discourse, at the same time not directing their intellect to the perception of these, but to the *originals* they resemble; I mean the square itself, and the diameter itself; and not to the figures they delineate. And thus, other forms, which are represented by shadows and images in water, are employed by them, merely as resemblances, while they strive to behold that which can be seen by cogitation alone.—Glauco. You speak the truth.—Socrates. This is what I called above a species of the intelligible, in the investigation of which, the soul was compelled to use hypotheses; not ascending to the principle, as incapable of rising above hypotheses, but using the images formed from inferior objects, to a similitude of such as are superior, and which are so conceived and distinguished by opinion, as if they perspicuously contributed to the knowledge of things themselves.—Glauco. I understand indeed, that you are speaking of the circumstances which take place in geometry, and her kindred arts.—Socrates. Understand now, that by the other section of the intelligible, I mean that which reason herself reaches, by her power of demonstrating, when no longer esteeming hypotheses for principles, but receiving them in reality for hypotheses, she uses them as so many steps and handles in her ascent, until she arrives at that which is no longer hypothetical, the principle of the universe; and afterwards descending, holding by ideas which adhere to the principle, she arrives at the conclusion, employing nothing sensible in her progress, but proceeding through ideas, and in these at least terminating her descent.—Glauco. I understand you, but not so well as I desire: for you seem to me to propose a great undertaking. You endeavour, indeed, to determine that the portion of true being and intelligible, which we speculate by the

substances. And to indivisible natures, indeed, he attributes an intelligence, which, in a collective manner, and by a certain simple power, divides the objects of intellectual perception; so that being divested of matter, and endowed with the greatest purity, it apprehends things themselves, by a certain unifying perception, and excels the other kinds of knowledge. But to divisible essences, and such as are allotted the lowest nature, and to all sensible beings, he attributes opinion, which obtains an obscure and imperfect truth. But to middle essences (and such are mathematical forms), and to things inferior to an indivisible and superior to a divisible nature, he attributes cogitation. For this, indeed, is inferior to intellect, and the supreme science dialectic; but is more perfect than opinion, and more certain and pure. For it advances by a discursive procession, expands the indivisibility of intellect, and unfolds that which was involved in the unity of intellectual apprehension: but it collects things which are divided, and brings them back to mind. Hence, as knowledges differ among themselves, so the objects of knowledge are distinguished by nature. So that intelligible essences having a uniform subsistence, evidently excel all others. But sensibles are entirely excelled by primary essences: and mathematical natures, and whatever falls under cogitation, are allotted a middle order: for they are excelled by the division of intelligibles; but because destitute of matter, they are superior to sensible

science of demonstration, is more evident than the discoveries made by the sciences called arts; because in the first hypotheses are principles, and their masters are compelled to employ the eye of cogitation, and not the perceptions of the senses. Yet, because they do not ascend to the principle, but investigate from hypotheses, they seem to you not to have intelligence concerning these, though they are intelligible, through the light of the principle. But you seem to me to call the habit of reasoning on geometrical and the like concerns, cogitation, rather than intelligence, as if cogitation held the middle situation between opinion and intellect.—Socrates. You understand me sufficiently well. And again: with these four proportions take these four corresponding affections of the soul: with the highest intelligence; with the second cogitation; against the third set opinion; and against the fourth assimilation, or imagination. Besides this, establish them in the order of alternate proportion, so that they may partake of evidence, in the same manner as their corresponding objects participate of reality.” I have taken the liberty of translating this fine passage differently from both Petvin and Spens; because they have neglected to give the proper meaning of the word διανοία, or cogitation, the former translating it *mind*, and the *eye of the mind*, and by this means confounding it with intellect; and the latter calling it *understanding*. But it is certain that Plato, in this place, ranks intellect as the first, on account of the superior evidence of its perceptions; in the next place, cogitation; in the third, opinion; and in the fourth, imagination. However, the reader will please to remember, that by διανοία, or cogitation, in the present work, is understood that power of the soul which reasons from premises to conclusions, and the whole syllogistic energy, on active subjects, is called prudence: and on such as are speculative, science. But for farther information concerning its nature, see the dissertation prefixed to this work, and the following fifth chapter.

natures; and by a certain simple power, they are excelled by the first; but by a certain reason are more exalted than the last. Hence they possess notions of an intellectual essence, which are more manifest than sensibles, but which are, at the same time, only the images of an intellectual nature; and they imitate divisibly the indivisible, and, in a multiform manner, the uniform exemplars of things. And, that I may sum up the whole in a few words, they are placed in the vestibules or entrances of primary forms, and disclose their indivisible and prolific subsistence collected into one, but they do not yet excel the division and composition of reasons, and an essence accommodated to the obscurity of images; nor are they capable of passing beyond the various notions of the soul, endued with a discursive power, and of adhering to intellections perfectly simple, and purified from all material imperfection. After this manner then, is the middle nature of mathematical genera and forms to be understood; as filling up the medium between essences entirely indivisible, and such as are divisible about matter.