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erthe Roman world. Lacretius, the poet of science, gives them that credit in some noble verses,* which suffer grievously in my translation :---

Of old, when Human life lay erushed to earth By onerous creeds, each claiming heavenly birth, Which showed their horrid forms in dreadful guise, The Greeks first dared to lift their questioning eyes. No tales about the gods, no lightning dire, No growing thunder, threatening heaven's ire, Cowed their free minds or stopped their opening wide The gates of nature, theretofore untried. And thus the living forces of the soul Began to contemplate one glorions whole. Outreached the luminous boundaries of Earth, Made the great universe a field of worth For mental culture, and correctly tanght The lawful bounds of profitable thought.

In his "Republic,"[†] Plato considers of the sciences to be studied. First, he mentions arithmetic, and then geometry, "which draws the soul towards truth and creates the spirit of philosophy." Next, he names astronomy, "For every one, as I think, must feel that astronomy compels the soul to look upwards and leads us from this world to another." "The spangled heavens," he urges, "should be used as a pattern, and with a view to that higher knowledge." And he insists that they should be studied with love "since knowledge acquired under compulsion has no hold upon the mind."

These old philosophers had some fair conceptions of the mechanism of the heavens. A paper by Mr. W. D. Musson, in our *Transactions* for last year, gives an excellent account of the theories of motion held by various Greeks, and Vince's "Complete system of astronomy," which we possess, gives a good summary of the history of the science among eastern nations. It seems clear to me that Plato spoke of the Earth as "revolving" around its pole, though the word used may have another meaning. Nor could Anaxagoras have explained the way in which the Moon is illuminated unless he had understood its motion with reference to both Earth and Sun. He was imprisoned for so doing; the world often maltreats its benefactors. The Aristotelians reasoned out the necessary rotundity of celestial bodies, and the Pythagoreans seem to have held a proper theory of the revolution of the wandering stars. One can see in

* De naturâ rerum, Lib. I., vv. 63-67.

+ Book VII.

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