Alexander Mourelatos' paper raises important historical and philosophical issues and discusses them extremely well. It seems to me penetrating in its statement of the philosophical issues and convincing in most of its detailed reading of the historical evidence. This makes the task of the commentator rather difficult. Since I have few exegetical differences with Mourelatos, I have decided to focus on some larger philosophical issues that arise in connection with the problem of emergence as he states it, and with the particular approach to that problem that is characteristic of all of Mourelatos' main figures -- Empedocles, Anaxagoras, and Democritus. (Indeed, as Aristotle remarks, this approach is characteristic of all those whom he calls the 

*phusioiologi*, early thinkers about the nature of things; he seems here to be excluding the Pythagoreans and the Eleatics.) I shall first characterize this general approach, basing my description upon Mourelatos' analysis, though diverging from him in some of my critical remarks. Then, following the general outlines of Aristotle's criticism of this approach, I shall give you my reasons for believing that this approach to the problem of emergence is fundamentally bankrupt. I shall describe an alternative approach to the problem, one that is, I believe, Aristotle's, and one that I think is still valid today as a reply to modern-day materialists who insist that nature must be explained by "deduction from the
bottom up."¹ I shall offer some reasons to think that this alternative approach really does handle the problem of emergence, without landing us back in the realm of "divine marvels" and inexplicable transitions. Then, in a concluding section, I shall return to our three main Pre-Socratic figures and ask how far their own accounts anticipate or move towards this alternative approach, and how far, in general, they can accommodate my criticisms. Thus I shall be focussing on Aristotle's criticism of the Pre-Socratics more than on the Pre-Socratics themselves. But I do this because I believe Aristotle has a deep and essentially correct insight into what these Pre-Socratics were doing, and why it fails.

These Pre-Socratic thinkers insist, as Mourelatos correctly stresses, that the natural world and the things in it are thoroughly intelligible. Nothing comes from nothing; and each being and happening must have a sufficient explanation that appeals only to entities that are themselves within the realm of nature. So much is common ground between these thinkers and the Aristotelian account that I shall recommend. But there is another part to their project that I now wish to stress more than Mourelatos has. This is that they hold that the only acceptable non-emergentist way to go about giving explanations for the being and the activities to natural items -- including stuffs, non-living structures, and organic living things alike -- is by some sort of deduction from the bottom up, where the "bottom" consists of the ultimate material building blocks of things. Things are wholes made up out of these ultimate parts; and all of their characteristics as wholes must be derived from the characteristics of the parts. Qualities of many different sorts -- textural, structural, and even