rangement might provide a clue to the logic of the Mithraic order so derived. The second approach will in fact yield at least a working hypothesis, and I propose to pursue it first, postponing the lengthier and more intricate exploration of the other planetary orders used by the cult.

II

It is at least a priori likely that the Mysteries would have adapted common usage rather than inventing an entirely new order. Even the most innovative cult, if it is to win adherents, must offer a compromise between the novel and the familiar, between its particular vision and a wider "common knowledge," between its own authority and the authority of conventional wisdom about the way the world is. It may furnish a new road to salvation, but the landmarks and their disposition must still be recognizable in general and accepted terms.⁶

At the time when Mithraism emerged in the Empire as an organized and fairly widespread cult with its apparatus, real and doctrinal, more or less in place — that is, towards the middle of the second century A.D. — there were three planetary orders commonly in use, though for different purposes. The first of these, which is the primary one in that the other two were derived from it, is the order according to supposed distance from the earth. From the most distant planet inwards it runs:

Saturn Jupiter Mars Sun Venus Mercury Moon.

It is based on the planets' geocentric periods of revolution: on an assumption of more or less equal speeds, the longer a planet takes to complete its orbit the further away it must be. This principle determines the positions of Saturn, Jupiter and Mars at the far end of the scale and of the Moon at the near end. It also establishes that the remaining three planets (Sun, Venus, Mercury) lie between Mars and the Moon; but it cannot fix their positions relative to each other. Viewed from the earth, Venus and Mercury accompany the Sun on its annual journey; so their periods, on average, are the same as the Sun's — one year. The system, then, is arbitrary in respect of those three planets, and variants are in fact found with virtually every combination of the three,⁷ notably the sequences which place the Sun below Venus and Mercury:

⁶ See the start of Gordon's "Reality, Evocation and Boundary ..." (above, n. 4), esp. 22 f.: "New cults have to cannibalize upon a whole range of banal and customary beliefs within the society in which they exist if they are to be more than minute evanescent, usually kin-based, groups."

⁷ The variants are succinctly set out in O. Neugebauer, A History of Ancient Mathematical Astronomy (Berlin, Heidelberg and New York 1975), 2.690-693. See also F. Boll, "Hebdomas,"
This sequence with the Sun next to the Moon, sometimes called "Egyptian" after Macrobius (In Somn. 1.19), derives its authority from Plato, for it is the order implied in the Timaeus (38D). The "Chaldean" (Macr. ibid.) sequence, which places the Sun in the middle in fourth place (and Mercury below Venus, as above), is generally regarded as later than the "Egyptian," even though Ptolemy (Alm. 9.1) ascribes it to "older" (παλαιοτέρος) authorities. The "Chaldean" order is not really a "discovery" of the sort which can be confidently attributed to a particular scientist (any more than can the "Egyptian"). It is better understood as a convention for ordering the planets according to distance which gradually won acceptance over its rival variants until in late Hellenistic astronomy it became the dominant one. Beyond the narrow circle of professional astronomers, it was adopted by Roman and Greek intellectuals, by those who for philosophical or technical purposes needed to treat of these matters; "Cicero, Vitruvius, Pliny, and Plutarch take if for granted." It was basic, too, for the astrologers, who in all probability provided much of the impetus towards its acceptance.

This order of the planets according to distance, in its "Chaldean" form, would be that to which, at the time of the Mysteries' formation and for well over a century before, one would naturally look to express spatial reality on the grand scale. The order defines the depth of the cosmos from its boundary at the sphere of the fixed stars to its centre, the earth. The best illustration of this is Cicero's simple and vivid description in the Somnium Scipionis (4), where Africanus reviews for his grandson the universe inwards from the imagined vantage point among the stars. As the same work likewise shows, the order also defines the route along which souls pass to terrestrial mortality from celestial immortality and back. The order thus carries — for those who accept such spiritual scenarios, as many then did in one form or another — a religious significance beyond the literal mapping of the heavens. In a general


1 See preceding note.

* Names have been suggested, by both ancient and modern authorities, for its earliest proponents: see esp. Boll (above, n. 7), 2567.

10 Neugebauer (above, n. 7), 691.

11 Boll, Bouché-Leclercq (above, n. 7).