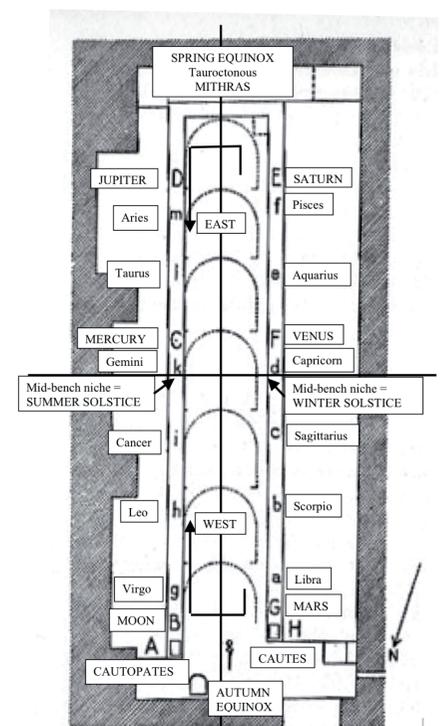


# Replicating experimentally the teaching of astronomy in an ancient mithraeum: questions of validity and feasibility

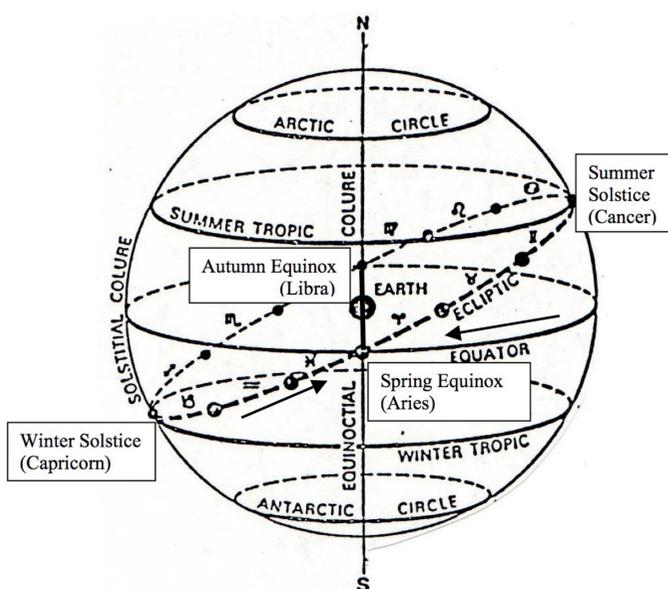
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Mithraism, one of the so-called mystery cults which flourished in the Roman empire during the first four centuries CE, was said to have ‘inducted its initiates into a mystery of the descent of souls and their exit back out again’. This the Mithraists did in a custom-designed interior space which they called a ‘cave’, a cave being understood as an ‘image of the universe’. To make the ‘cave’ – or ‘mithraeum’, as we now call it – isomorphic with the universe (as then conceived), ‘the things which the cave contained, by their proportionate arrangement’, were designed as ‘symbols of the elements and climates of the cosmos’.

Here are two photographs and a floor plan of excavated mithraea:



Here is a representation of the universe, as conceived by the astronomers of the times:



In order to recognize their mithraeum as an authentic microcosm and to use it as such ritually, the Mithraists had to comprehend the basic cosmic model of their times and something of the underlying astronomy.

My project will investigate whether the apprehension of the mithraeum as an authentic microcosm is readily teachable – teachable, moreover, not as a set of tenets transmitted by formal instruction but as hands-on experience of the cosmic model itself, the ‘cave’ with its contents of symbols ‘proportionately arranged’.

I envisage an experiment, using students as proxies for the long-dead Mithraists, to investigate the transmission of this knowledge and expertise could have been effected.

Is such an experiment feasible? If it is, then how should it be constructed so as to insure its validity. On both of these questions, I need input from colleagues in the social and cognitive sciences.

Two considerations suggest that the experiment is indeed both practical and feasible.

1. No special venue is needed, since the mithraeum, any mithraeum, can be easily replicated in a small rectangular classroom with two rows of chairs facing each other, preferably six each side.
2. The material to be taught is not ‘a mystery’ at all, but rather a coherent set of public representations which are independent of, and do not presuppose, the religious intent or metaphysical system of the cultists.