Inventing Reality: Week #1 Handout
by Douglas Leonard

Pick a Universe.

HESIOD (∼8th Century BC)

from Theogony

Hail, daughters of Zeus! Grant me the gift of lovely song!

Sing the glories of the holy gods to whom death never comes,
the gods born of Gaia and starry Ouranos,
and of those whom dark Night bore, or briny Pontos fostered.
Speak first of how the gods and the earth came into being,
and of how the rivers, the boundless sea with its raging swell,

105 the glittering stars, and the wide sky above were created.
Tell of the gods born of them, the givers of blessings,
how they divided wealth, and each was given his realm,
and how they first gained possession of many-folded Olympos,
Tell me, O Muses who dwell on Olympos, and observe proper order
for each thing as it first came into being.
Chaos was born first and after her came Gaia
the broad-breasted, the firm seat of all
the immortals who hold the peaks of snowy Olympos,
and the misty Tartaros in the depths of broad-pathed earth

120 and Eros, the fairest of the deathless gods;
he unstrings the limbs and subdues both mind
and sensible thought in the breasts of all gods and all men.
Chaos gave birth to Erebo and black Night;
then Erebo mated with Night and made her pregnant
and she in turn gave birth to Ether and Day.
Gaia now first gave birth to starry Ouranos, (ςώροσ)
her match in size, to encompass all of her,
and be the firm seat of all the blessed gods.
She gave birth to the tall mountains, enchanting haunts
of the divine nymphs who dwell in the woodlands;
and then she bore Pontos, the barren sea with its raging swell.
All these she bore without mating in sweet love.
PLATO (428-348 BC)

"As for the world -- call it that or cosmos or any other name acceptable to it -- we must ask about it the question one is bound to ask to begin with about anything: whether it has always existed and had no beginning, or whether it has come into existence and started from some beginning. The answer is that it has come into being; for it is visible, tangible, and corporeal, and therefore perceptible by the senses, and, as we saw, sensible things are objects of opinion and sensation and therefore change and come into being. And what comes into being or changes must do so, we said, owing to some cause. To discover the maker and father of this universe is indeed a hard task... . Don't therefore be surprised if on many matters concerning the gods and the whole world of change we are unable in every respect and on every occasion to render a consistent and accurate account. You must be satisfied if our account is as likely as any, remembering that both I and you who are sitting in judgment on it are merely human, and should not look for anything more than a likely story in such matters. So god, when he began to put together the body of the universe, made it of fire and earth...

"[The Universe] was [thus] the plan of the eternal god when he gave to the god about to come into existence a smooth and unbroken surface, equidistant in every direction from the center, and made it a physical body whole and complete, whose components were also complete physical bodies. And he put soul in the center and diffused it through the whole and enclosed the body in it. So he established a single spherical universe in circular motion, alone but because of its excellence needing no company other than itself, and satisfied to be its own acquaintance and friend. His creation, then, for all these reasons, was a blessed god."

-- From Timaeus
"When human life lay grovelling in all men's sight, crushed to the earth under the dead weight of superstition whose grim features loured menacingly upon mortals from the four quarters of the sky, a man of Greece was first to raise mortal eyes in defiance, first to stand erect and brave the challenge. Fables of the gods did not crush him, nor the lightning flash and the growling menace of the sky. Rather, he longed to smash the constraining locks of nature's doors. The vital vigour of his mind prevailed. Therefore superstition in its turn lies crushed beneath his feet, and we by his triumph are lifted level with the skies. In tackling this theme, our starting-point will be this principle: Nothing can ever be created by divine power out of nothing. The reason why all mortals are so gripped by fear is that they see all sorts of things happening on the earth and in the sky with no discernible cause, and these they attribute to the will of a god. Accordingly, when we have seen that nothing can be created out of nothing, we shall then have a clearer picture of the path ahead, the problem of how things are created and occasioned without the aid of the gods. Bear this well in mind, and you will immediately perceive that nature is free and uncontrolled by proud masters and runs the universe by herself without the aid of gods.''

-- from The Nature of the Universe, summarizing the views of the Milesian school of pre-Socratic thinkers from the sixth century B.C. (e.g., Thales) and their philosophical descendants.