Philosophy, then, suggests one reason why we cannot destroy the earth with moral impunity; namely, that the ‘dead’ earth is an organism possessing a certain kind and degree of life, which we intuitively respect as such.

--Aldo Leopold

Part I: Brief Overview of Gaia
The notion of “Gaia” brings to mind a diverse set of ideas, including ideas that are:

- Mythological,
- Spiritual,
- Scientific,
- Ethical...

- And these ideas can vary:
  - Meaningful,
  - Preposterous,
  - Quantifiable,
  - Reasonable,

- Some uses of “Gaia” are simply examples of Shameless Consumerism...
Gaia in Mainstream Life…

- Bottled Water
- Cosmetics
- Gemstones
- Jewelry

Gaia in Mainstream Life…

- Spiritual Practices
- Gaia Dance Class
- Holistic Healing & Health Products
- Gaia Trance Videos
Gaia in Mainstream Life...

- Pets / Children
- Music
- Magazines
- Video Games

Gaia in Mainstream Life...

- Online Role-playing games
- Music Festivals & Bands
- Art / Art Studios
Gaia in Mainstream Life…

- Artistic Spiritualism
- Pagan/Tribalism Groups
- Gurus & Gaia Vision quests

Gaia in Mainstream Life…

- Athletics / Athletes
- Ultimate Frisbee
- Gaia Global Charitable Trusts
- Gaia Bread
Brief Overview of Gaia

What is Gaia? The Plan:

1. Ancient Greek Mythology (Gaia as Earth Goddess)
2. Plato’s *Timaeus* (Earth as living, mindful, soulful organism)
3. Descartes & Newton (Earth as dead Mechanism)
4. Russian Mysticism (Earth as Consciousness)
   - Leopold’s rejection of “dead earth” theories
5. Lovelock’s Gaia Hypothesis (Earth as Self-Regulating System)

Greek Poet Hesiod (700 BCE)

- Ancient Greek Mythology is systematically presented in Hesiod’s *Theogony*, includes:
  - the genealogy of various gods and goddesses.
  - an account of the origin of the cosmos/world.
- Primeval chaos brought under the orderly rule of Zeus.
  - From this arose Gaia.
In Greek Mythology, Gaia refers to the earth goddess, or earth mother.

Gaia is one of numerous Greek gods/goddesses.

Gaia mates with her offspring Ouranos (starry heaven, father heaven) to produce Oceanus (the river that encircles the world, father of all rivers).

Plato (427-347 BCE)

In Plato’s *Timaeus*, a different account of the origin of the cosmos:

- The Divine Craftsman (The Demiurge) constructs the cosmos according to a rational, mathematical idea or plan.
- This restores the Divinity of the world that was lacking in some of the pre-Socratic philosophers of nature.
- That Divinity was a form of psyche (mind) that permeates the world/cosmos.
As part of that Divine rational creation, Plato viewed our world was viewed as a living creature.

- And because it is a living creature, Plato concludes that it must also have a soul.
- This “world soul” is responsible for all movement (just as our soul is responsible for all our movements).

Plato’s account in the *Timaeus* represents a strong animalistic / organismic strain in Western Philosophy.

- Also forms the basis of understanding humanity as an interplay of the various “animal spirits”.

**Descartes & Newton: The Scientific Revolution**

- Rene Descartes (1596-1650) & Isaac Newton (1642-1727) are key figures in developing the idea the Earth (and the cosmos in general) is a Great Machine.
**Descartes & Newton:**

- Mechanism dominates modern scientific understanding of the earth in every respect.
- Able to refine predictions, harness nature’s energy...

... and to create remarkable gadgets.

**Russian Mysticism**

- By the 1920s, a number of Russian writers developed their own mystical ideas.
- These Russian mystics emphasized the notion that the earth was a living being.
- They also maintained that the earth (and every particle that exists) is conscious.
Aldo Leopold (1887 – 1948)

- In his 1923 paper “Some Fundamentals of Conservation in the Southwest,” Leopold makes explicit reference to Ouspensky’s ideas.
- Leopold rejects “dead earth” theories.
- He endorses viewing the earth (and its various biotic communities) as complex systems much like an organism.
- Later, in ASCA, Leopold relies more on the community concept more than the “earth-as-organism” idea (though he still includes numerous organism references).

“Possibly, in our intuitive perceptions, which may be truer than our science and less impeded by words than our philosophies, we realize the indivisibility of the earth—its soil, mountains, rivers, forests, climate, plants, and animals, and respect it collectively not only as a useful servant but as a living being, vastly less alive than ourselves in degree, but vastly greater than ourselves in time and space—a being that was old when the morning starts sang together, and, when the last of us has been gathered unto his fathers, will still be young.” (Leopold, Fundamentals..., p. 95)
“Philosophy, then, suggests one reason why we can not destroy the earth with moral impunity; namely, that the ‘dead’ earth is an organism possessing a certain kind and degree of life, which we intuitively respect as such.” (Leopold, Fundamentals..., p. 95)
James Lovelock: The Gaia Hypothesis

- Lovelock is an atmospheric chemist who worked for NASA and JPL.
- From atmospheric studies alone, he was able to predict that Mars was lifeless.
- His studies of whole planetary systems resulted in The Gaia Hypothesis, which states that:
  - the Earth is a complex, self-regulating system, and that living things carry out this regulation.

The Gaia Hypothesis...

- 3 sources of evidence:
  - Atmospheric \ Chemical Conditions
  - Temperature Regulation
  - Planetary Systems (Biosphere)
- 2 basic formulations:
  - The Earth (Gaia) IS a living being.
  - The Earth (Gaia) is LIKE a living being.
- 1 powerful new way of conceptualizing the Earth and living systems:
  - holism
1. Greek Mythology (Gaia as Earth Goddess)
2. Plato (Earth as living organism with soul)
3. Descartes & Newton (Earth as Mechanism)
4. Russian Mystics (Earth as Consciousness)
   • Leopold’s rejection of “dead earth” theories
5. Lovelock’s Gaia Hypothesis (Earth as Self-Regulating System)
   • Scientific Holism

In Part II, I will make a few remarks about the relationship between ethics and science, especially holistic science.