Exploring the Boundaries of Nature

Science as Modern Myth

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What is Science?

- The observation, identification, description, experimentation, and theoretical explanation of nature
- Objectivity
- The scientific method
Cause and Effect

- Impersonal
- Scientists look for causes
- Scientific findings fuel technology
- Technology: is it a shadow side of science

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Scientific Materialism

- Its own language
  - the graph
  - the equation
  - the acronym

- Its own institutions
  - centers of learning
  - disciplines and guilds
  - selective funding
  - peer review
  - pure science
  - good science
  - bad science
  - junk science
The Null Hypothesis

- No relationship exists between $x$ and $y$
- Experiments disprove the hypothesis
Null Hypothesis

- There is no relationship between global warming and the intensity of hurricanes
- It is a myth.....
Myth-Definitions

- **false belief**: a widely held but mistaken belief
- **fictitious person or thing**: something fictitious or nonexistent, but whose existence is widely believed in
- **ancient story**: a traditional story about heroes or supernatural beings, often attempting to explain the origins of natural phenomena or aspects of human behavior
Myth-Definitions

- **myths**: a group or genre of stories (creation, etc.)
- **idealized conception**: idealized ideas and stories surrounding a particular phenomenon or concept

- All of the above can be applied to science in relation to nature
Simplistic correlations

- ancient story: discovery of penicillin
- myths: creation of the universe
- idealized concept: walking on the moon
- false belief: the world is flat
- fictitious idea: scientists can change the weather
Myths are stories that endure
- C.G. Jung often saw them as Archetypal
- rooted in the human collective psyche
- they represent familiar patterns
- we can relate to the stories as universal and cross cultural
Myth and the Natural World

- For the ancients, the myth described natural phenomena
- Myths had ritual (religious) purpose
- Myths offered meaning
- Myths provided perspective
- Infused a relationship with nature
- Relived anxiety around natural events
Dominance over Nature

- Gilgamesh & Enkidu
  - cut down the cedar of the great forest after killing its protector
- Erisichthon
  - felled the sacred tree in Demeter’s grove, was visited by Hunger, sold his daughter and finally consumed himself
Respect for nature

- Demeter and Persephone
  - Hades takes Persephone to the underworld
  - Demeter mourns her loss
  - Her anger turn the world to winter
  - Persephone brings back the sun
  - the seasonal cycles continue
Science Myth

- The myth of “Duck and Cover”

- What does it mean to you?
Science Myth

- Duck and Cover
The Science behind the Myth

- Nuclear suns
- Nuclear winters
On a positive note...

- Observations:
  - scientists have a passion about science
  - working with nature forces scientist into relationship
  - nature engenders personal meaning
  - science looks for relationship
Science of Mythic Proportions

- Narrow perspectives don’t work
- Science requires new perspectives:
  - Hermeneutics
  - Phenomenology
  - Interdisciplinary approaches
  - Weight of evidence
  - Personal heroic stories
  - etc.
A Psychological Awareness

- **Shadow**
  - why can’t we grasp that our actions have consequences

- **Externalization**
  - why can we dump our waste without concern

- **Denial**
  - why can’t we see the evidence

- **Relationships**
Phaethon

- Son of Helios (Sun God)
- Borrowed his father’s chariot
- Could not control the steeds
- The chariot scorched the earth
- Created the Libyan desert
- Zeus killed him with a thunderbolt
- Phaethon’s sisters cried and became trees
It is only a Myth

- Are myths even relevant today?
- The ancients believed their actions (prayer & sacrifice) could influence the Gods
- Has science become our belief system (modern myth)?
- Is our collective reliance on science and technology the same psychological process?
Personal perspective

- Bringing parts together:
  - Science-
    - with attention to detail
    - a focus on facts
    - following the collective
  - Nature-
    - relationship to other
    - a focus on feeling
    - individual experience
    - mystery
- A strange blend