

Course stuff

- -Tiny Ecologies #2: due by 5 pm Friday 2/21 to Canvas
 - Goal: A speculative "history" of your tiny place
- -Midterm: in Friday sections in person on 3/7
 - -rubric is on Canvas under "Modules"
- -Why are we doing what we are doing?

How did Western philosophy and science get from the Book of Nature to the Tree of Life?

- -Why do the different analogies that we use for nature over the centuries matter?
- -What is the difference of imagining nature as books, as ladders, as machines (as Descartes does), as trees (as Darwin does), or as phylogenetic trees (as we do today)?
- -Why should we care? Aren't they just pretty images?
 - -The different natural analogies that we use influence what we see when we look at nature
 - -they also determine the types of questions that we ask of it, whether scientific and philosophical

The Medieval Book of Nature

• Every creature of the world is like a book, a picture, and a mirror for us. [Omnis mundi creatura,/ Quasi liber, et pictura/ Nobis est, et speculum].

-the twelfth-century Neoplatonist Alan of Lille, "Every Creature in the World"

• What are the effects of thinking about nature as a book?



The Medieval Ladder of Life (*scala naturae*) or the Great Chain of Being

- the Ladder of Life (scala naturae) or, after the work of Arthur Lovejoy, what came to be called the Great Chain of Being
- the ladder or stairway of nature divides the world into ascending degrees of being
- stones have existence, plants have life and existence, animals add motion, humans add reason—all the way up to God
- this is a "sliding scale of sentience"
- man is a crucial category because he possesses both a material body and an immaterial soul
- man is also imagined as a microcosm of the universe (macrocosm)

Great Chain of Being (Scala naturae or ladder of nature)

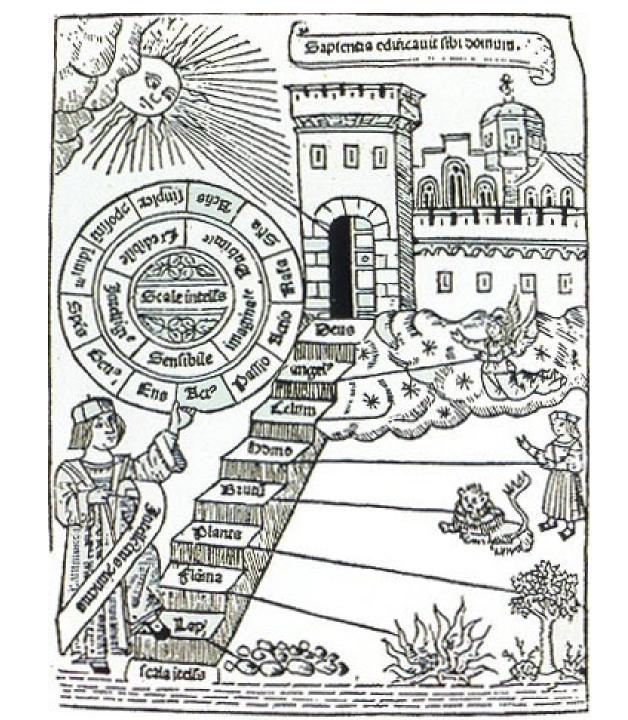
- God as Spirit
- Spiritual Beings (like angels)
- Human Beings
- The Animal Kingdom
- The Plant Kingdom
- The Material (Inert) World

Image of the Ladder of Life (scala intellectus) as represented in Raymond Lull, Liber de ascensu et descensu intellectus [The Ladder of Ascent and Descent of the Intellect] (1305) (Printed in Valencia: Jorge Costilla, 1512).

Note ascending steps labelled: rocks (lapis), fire (flama), plants (planta), animals (brutus), man (homo), heavens (celum), angels, god (Deus).

HUMAN EXCEPTIONALISM

- -definition?
- -does this image encourage it?



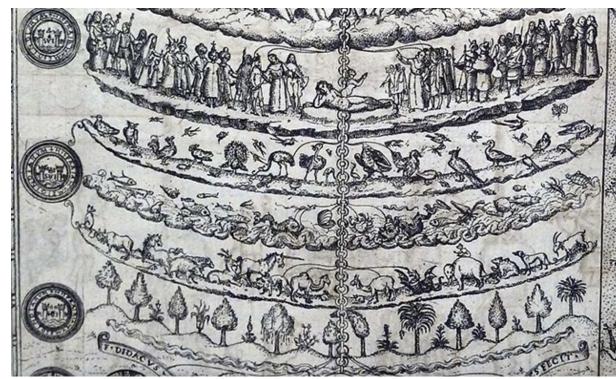
How do Animal Bodies relate to Human bodies?

That carefulness on the part of Nature which is reflected in man is not found in other animals. For an imbalanced mixture of humors all too often leads to a distorted complexion in brute beasts. The donkey is made stupid by phlegm, the lion wrathful by choler; the dog is wholly pervaded by his aerial sense of smell. The human condition is utterly unique. A balance is created among qualities and quantities by the mingling of the humors. Human nature has been wrought with all possible care into a whole ... For it would have been improper for the future abode of intellect and reason to suffer imbalance or disruption through any uncertainty in its design.

Great Chain of Being, from Diego Valadés, *Rhetorica Christiana* (1579).



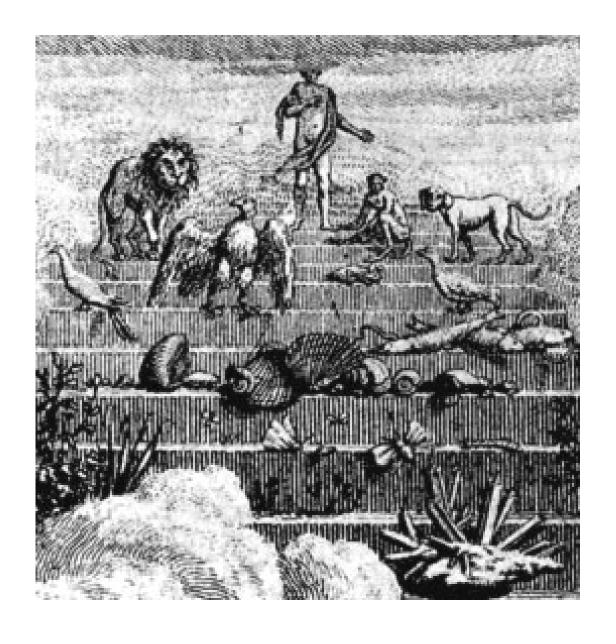




Details from Great Chain of Being, from Diego Valadés, Rhetorica Christiana (1579).

How does this *scala naturae* from the 18th c. differ from the two preceding ones from several centuries earlier?

What are the effects of thinking about nature as a ladder/ chain?



The Great Chain of Being, from Charles Bonnet, Œuvres d'histoire naturelle et de philosophie, 1779-83

Scientific Revolution (17th c): Nature as Machine

-"There is no difference between the machines built by artisans and the diverse bodies that nature alone composes."

-René Descartes, Treatise on Man (c. 1632-1640)

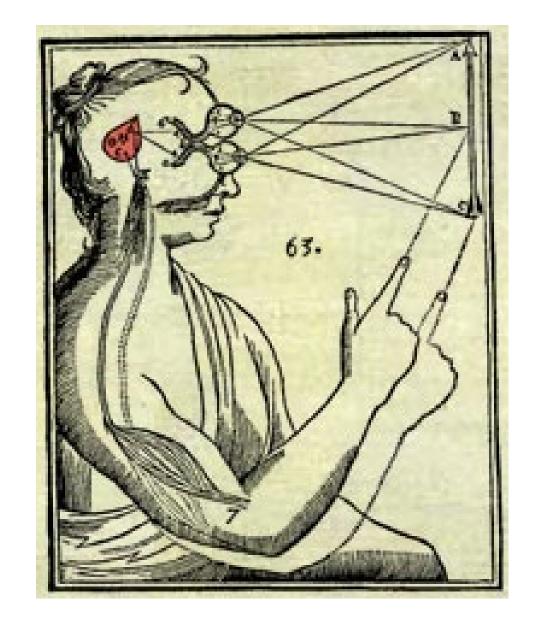
-Descartes compares the movements of all natural bodies, including the human body, to mechanical clocks: "we see that clocks...and other machines of this kind, although they have been built by men, do not for this reason lack the power to move by themselves in diverse ways."

-what are the effects of comparing all natural bodies to machines?

-only humans have souls and can feel

-animals are automata and lacked feelings. They are "beast machines," lacking consciousness and act only according to physical stimulus

-What would Robin Wall Kimmerer think?



Bestiaries and the Book of Nature

- -Bestiaries were books documenting both the literal and symbolic associations of animals
- -often describes their physical characteristics and actual habits and then offeres a moralized, allegorical reading of these
- -ex. The pelican is allegorized as Christ since it was thought to feed its young from its own body (what they were actually seeing was the bird regurgitating its food and then offering it to its young)
- -this allegory was licensed by the analogy of the Book of Nature, the belief that the whole of the material world was a reflection of God's divine purpose written out in the visible world



Pelican feeding its chicks in Bestiary, Museum Meermanno, MMW, 10 B 25, folio 32r

Eagle

Natural observation: "When an eagle is old, its eyesight dims and its feathers and wings become heavy. To rejuvenate itself, the eagle flies up to the region of the sun, which burns away the mist over its eyes and burns off its old feathers. The eagle then plunges three times into water, and its youth is restored...The eagle can look directly into the sun."

Allegory: "As the eagle renews its youth, so too can the man with "old clothes and dim eyes", who should seek the spiritual spring and raise the eyes of his mind to God. ... The eagle's ability to look directly at the sun represents Christ's ability to look directly at God."



Bestiaries and the Ladder of Life

- -Despite its name, most medieval bestiaries do not contain only animals
- -plants, stones, and humans also appear
- -a bestiary is a way to make visible the order of nature
- -it was an encyclopedia that laid out
- -it is literally and figuratively a "book of nature"
- -many begin with Adam naming the animals; showing human dominion over the animal kingdom
- -BUT humans and their parts appear at the end of some bestiaries, suggesting that they are also an animal among animals



Adam Names the Animals. Bodleian Library, MS. Ashmole 1511, f9r.

Plants in Bestiaries: The Mandrake

- -it was thought to grow in human form, male and female, and shriek when torn from the ground.
- -the shriek could send people mad so a hungry dog tied to a cord and lured by meat was used to pull the plant out of the ground
- -thought to improve fertility and act as an aphrodisiac



Bibliothèque Nationale de France, fr. 14969 (Bestiaire of Guillaume le Clerc), folio 61v

Rocks and Minerals in Bestiaries: The Magnet

- -quasi-animate powers of selflocomotion because of the movement caused by its two poles
- -Albertus Magnus argued that magnetic attraction proved the existence of the great chain of being
- -Also according to Albertus, a husband could place a magnet under his sleeping wife's pillow. If faithful, she would automatically put her arms around her husband; if not, she would be cast out of the bed, repelled by the stone's powers.



Universitätsbibliothek Leipzig, Cod. gr. 35, folio 38v

Bestiaries and Anthropomorphism

- -is this just anthropomorphizing? what purpose did it serve?
- -not just that medieval people thought plants screamed and rocks new whether women were faithful
- *-rather it witnesses the ways in which people were on a continuum with the animal and inanimate worlds
- -the descriptions of plants, animals and minerals blurs the line between inanimate and animate things as well as humans and the rest of nature
- -an example of how a shared model of animacy (and being) influences what a scientist sees in nature

Imaginary Animals in Bestiaries: The Manticore

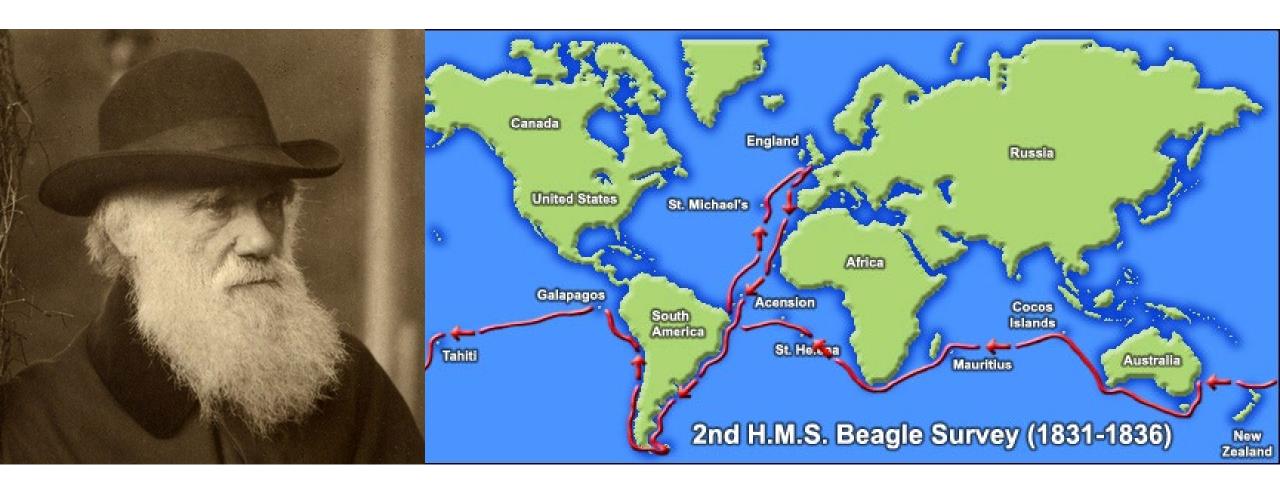
- -"A beast with a man's face, a lion's body, and the stinger of a scorpion ... some say it can shoot spines from its tail."
- -Its name derives from 'man eater'
- -a different kind of hybrid: one that has a humanoid creature eating humans
- -anthropophagy or cannibalism collapses the boundary between human and animal



Bibliothèque Municipale de Douai, Ms. 711 (De Natura animalium), folio 12r

Monsters, Prodigies and the Order of Nature

- -In Aristotle's Physics a monster is a mistake of nature, something that failed to attain its natural end.
- -for Aristotle, monsters (particularly monstrous births) are important because they prove the otherwise regular laws of nature ("the exception proves the rule")
- -in the medieval and early modern period they were also thought to be jokes (or "sports") of nature (L "lusus naturae)
- -like the Green Children of Woolpit
- -Etymology of 'monster': from the Latin, 'monstrare' meaning 'to demonstrate' combined with 'monēre' to warn
- -what do they demonstrate? How nature can go awry but also moral lessons about what is "natural" and what "unnatural"
- -monsters are tools for policing morality
- -the monster reinforces social boundaries: the manticore tells us that cannibalism is bad



Charles Darwin (1809-1882), The Origin of Species (1859)