

- Inspiration: breathe in the (dirty) air
- Design as a dirty, greedy, lascivious & omnivorous activity
 - we eat: metaphors, similes, analogies, sympathies, juxtapositions, convenientias (rubbing borders)
 - We use them, we do not need to justify *them*.
 - *They* give direction
 - We need to justify *our* designs

how?

Through the analysis and critique of things we might want...

I want my building to be beautiful
 I want form to follow function
 I want my building to be stable, useful and desirable
 I want my building to be modern/oldfashioned
 I want my building to contribute to a fair society
 I want my building to contribute to a sustainable environment

- Through the understanding of how we justify our way of getting what we want
- HYPOTHETICAL IMPERATIVE: these include
 - rules of skill
 - counsels of prudence.
 - CATEGORICAL IMPERATIVE: commands (laws) of morality.
 - THE GOLDEN RULE if I want it then...

design and purpose

ΤΈΛΟΣ

“einde”, “bestemming”, “doel”

teleology



Questions


• Why does matter organise itself?

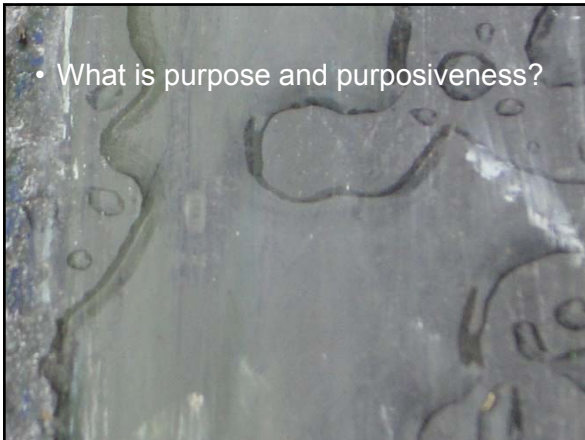


Henri Bergson (1859-1941)

Henri BERGSON (1907)


L'évolution créatrice






- What is purpose and purposiveness?


The teleological ladder to the absolute...




The circle of eternal return

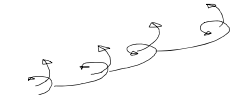


The spiral of history repeating itself...






The rugby model of progress



The eddying stream model of progress....

Progress is....
(make your choice and win!)

- Relative
- Absolute
- Impossible
- Meaningless
- At least unimportant
- Boredom therapy
- Self fulfilling



- What is evolution exactly?


Empedocles (c. 490–430 BC) what we call birth and death in animals are just the mingling and separations of elements which cause the countless "tribes of mortal things".

The first animals and plants were like disjointed parts of the ones we see today, some of which survived by joining in different combinations, and then intermixing, and wherever "everything turned out as it would have if it were on purpose, there the creatures survived, being accidentally compounded in a suitable way".




divine design

Erasmus Darwin 1731-1802, *Zoönomia* (1794–1796),



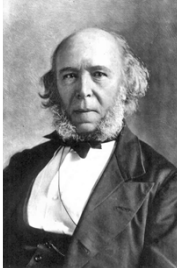
- "Would it be too bold to imagine that, in the great length of time since the earth began to exist, perhaps millions of ages before the commencement of the history of mankind (...) that all warm-blooded animals have arisen from one living filament, which the great First Cause endued with animality, with the power of acquiring new parts, attended with new propensities, directed by irritations, sensations, volitions and associations, and thus possessing the faculty of continuing to improve by its own inherent activity, and of delivering down these improvements by generation to its posterity, world without end!"



Jean Baptiste Lamarck 1744-1829

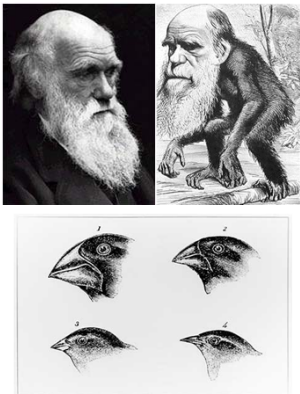
- *Philosophie zoologique* 1809 "Changes in the needs of organisms living in that environment, which in turn causes changes in their behaviour. Altered behaviour leads to greater or lesser use of a given structure or organ; use would cause the structure to increase in size over several generations, whereas disuse would cause it to shrink or even disappear. This rule -- that use or disuse causes structures to enlarge or shrink -- "First Law" *Philosophie zoologique*. "Second Law" all such changes were heritable.
- mentions the possibility of natural selection in his writings
- evolution is a process of increasing complexity and "perfection," not driven by chance: "Nature, in producing in succession every species of animal, and beginning with the least perfect or simplest to end her work with the most perfect, has gradually complicated their structure."

Social evolution: Herbert Spencer 1820-1903 and Racism




- *Social Statics* 1851 "Survival of the fittest"

natural selection vs evolution

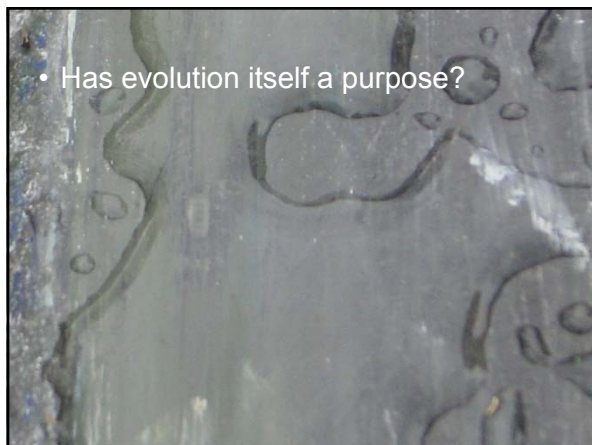
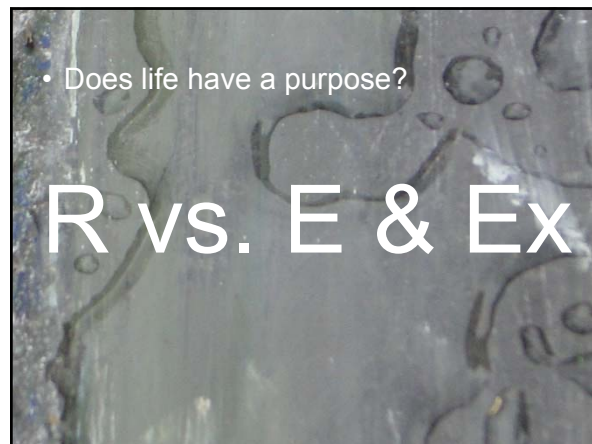


Natural selection vs Artificial Selection
Charles Darwin (1809-1882) *The Origin of Species* (1859) & *The Descent of Man* (1871)



- **Natural selection** is the process by which individual organisms with favourable traits are more likely to survive and reproduce than those with unfavourable traits. Natural selection works on the whole individual, but only the heritable component of a trait will be passed on to the offspring, with the result that favourable, heritable traits become more common in the next generation. Given enough time, this passive process can result in adaptations and speciation

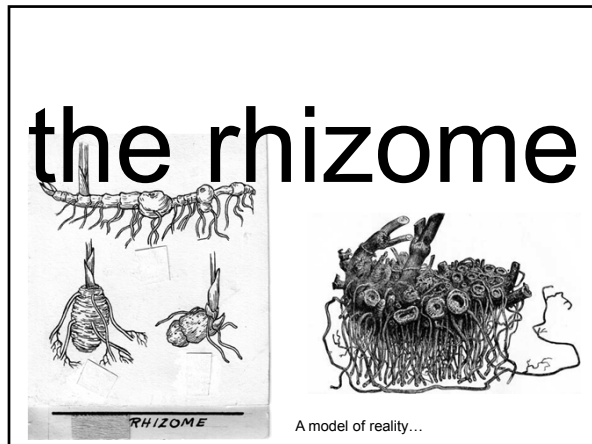
- Concepts in evolution
- Organisation and organ formation
 - Selection (natural and artificial)
 - Speciation in the formation of new sorts
 - Genotype/Phenotype
 - Extended phenotype
 - de- and re-territorialisation
 - Exaptive adaptation
 - Involution (practise and learning)
 - The Baldwin effect
 - Genes and Memes
 - Co-evolution and reciprocity



The Tree of Life as depicted by Ernst Haeckel in *The Evolution of Man* (1879) illustrates the 19th-century view that evolution was a progressive process leading towards man




- Gilles Deleuze 1925-1995
- 1953 - *Empirisme et subjectivité*
 - 1962 - *Nietzsche et la philosophie*
 - 1963 - *La philosophie critique de Kant*
 - 1964/1970 - *Proust et les signes*
 - 1966 - *La Bergsonisme*
 - 1967 - *Présentation de Sacher-Masoch*
 - 1968 - *Différence et répétition*
 - 1968 - *Spinoza et le problème de l'expression*
 - 1969 - *Logique du sens*
 - 1970/1981 - *Spinoza - Philosophie pratique*
 - 1972/1973 - *Capitalisme et Schizophrénie I. L'Anti-Œdipe* (samen met Félix Guattari)
 - 1975 - *Kafka. Pour une Littérature Mineure* (samen met Félix Guattari)
 - 1976 - *Rhizome* (samen met Félix Guattari)
 - 1977 - *Dialogues* (samen met Claire Parment)
 - 1979 - *Superpositions*
 - 1980 - *Capitalisme et Schizophrénie II. Mille Plateaux* (samen met Félix Guattari)
 - 1981 - *Francis Bacon - Logique de la sensation*
 - 1983 - *Cinéma I: L'image-mouvement*
 - 1985 - *Cinéma II: L'image-temps*
 - 1986 - *Foucault*
 - 1988 - *Le pli - Leibniz et le baroque*
 - 1990 - *Pourparlers*
 - 1991 - *Qu'est-ce que la philosophie?* (samen met Félix Guattari)
 - 1993 - *Critique et clinique*
 - **Postuum**
 - 2000 - *Pure Immanence*
 - 2002 - *L'île déserte et autres textes*
 - 2004 - *Deux régimes de fous et autres textes*
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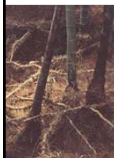
The rhizome

- The rhizome assumes very diverse forms, from ramified surface extension in all directions to concretion into bulbs and tubers. Rats that swarm over each other. The rhizome includes the best and the worst: potato and couchgrass, or the weed. Animal and plant, couchgrass is crabgrass.


Principles of connection and heterogeneity: any point of a rhizome can be connected to any other, and must be. This is very different from the tree or root, which plots a point, fixes an order.



Multiplicities are rhizomatic, and expose arborescent pseudomultiplicities for what they are. (...) A multiplicity has neither subject nor object, only determinations, magnitudes, and dimensions that cannot increase in number without the multiplicity changing in nature (the laws of combination therefore increase in number as the multiplicity grows).

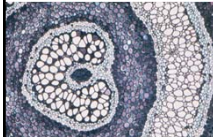


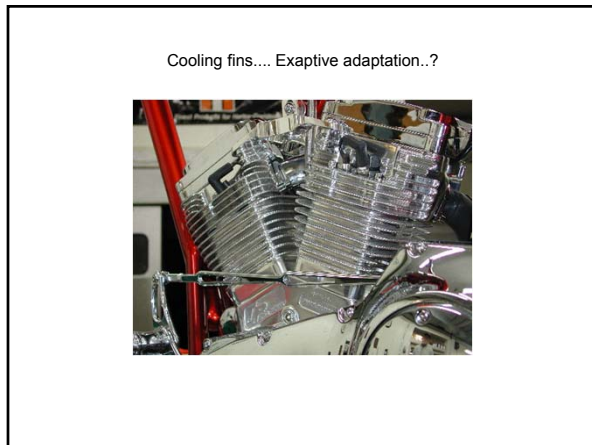
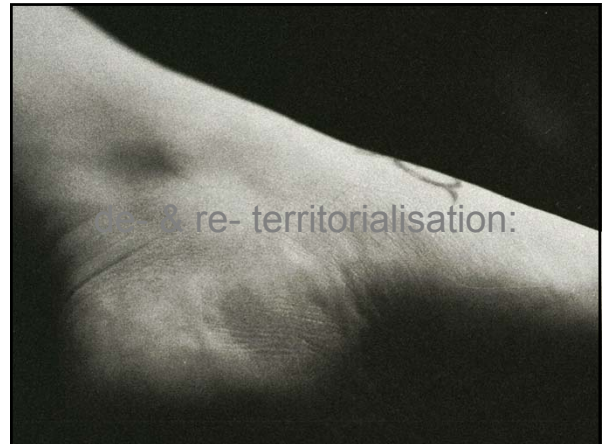
Puppet strings, as a rhizome or multiplicity, are tied not to the supposed will of an artist or puppeteer but to a multiplicity of nerve fibers, which form another puppet in other dimensions connected to the first: "Call the strings or rods that move the puppet the weave. It might be objected that ITS MULTIPLICITY resides in the person of the actor, who projects it into the text. Granted; but the actor's nerve fibers in turn form a weave. And they fall through the gray matter, the grid, into the undifferentiated...The interplay approximates the pure activity of weavers attributed in myth to the Fates or Norns."



An assemblage is precisely this increase in the dimensions of a multiplicity that necessarily changes in nature as it expands its connections. There are no points or positions in a rhizome, such as those found in a structure, tree, or root. There are only lines.

When Glenn Gould speeds up the performance of a piece, he is not just displaying virtuosity, he is transforming the musical points into lines, he is making the whole piece proliferate.

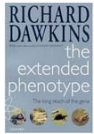




wild use & exaptive adaptation

"movements of deterritorialization and processes of reterritorialization are always connected, caught up in one another. The orchid deterritorializes by forming an image, a tracing of a wasp; but the wasp reterritorializes on that image. The wasp is nevertheless deterritorialized, becoming a piece in the orchid's reproductive apparatus. But it reterritorializes the orchid by transporting its pollen. Wasp and orchid, as heterogeneous elements, form a rhizome. It could be said that the orchid imitates the wasp, reproducing the image in a signifying fashion (mimesis, mimicry, lure, etc.). But this is true only on the level of the strata – a parallelism between two strata such that a plant organization on one imitates an animal organization on the other. At the same time, something else entirely is going on: not imitation at all but a capture of code, surplus value of code, an increase in valence, a veritable becoming, a becoming-wasp of the orchid and a becoming-orchid of the wasp. Each of these becomings brings about the deterritorialization of one term and the reterritorialization of the other; the two becomings interlink and form relays in a circulation of intensities pushing the deterritorialization ever further. There is neither imitation nor resemblance, only an exploding of two heterogeneous series on the line of flight composed by a common rhizome that can no longer be attributed to or subjugated by anything signifying. Remy Chauvin expresses it well: "the APARALLEL EVOLUTION of two beings that have absolutely nothing to do with each other."





The extended phenotype,
1982

- The **phenotype** = is the totality of observable characteristics of an organism
- It is the product of the genotype, the genetic make-up of an individual and the influence of the environment upon that genotype
- The term was coined in 1911 by Wilhelm Johannsen (1857-1927), to distinguish between the hereditary characteristics of an organism and its products.
- The word literally means appearance-form and is derived from the Greek *phainein*, to make appear, to show.
- An example is the colour of one's skin. This is determined by the genotype but came about through selection because of the environment in which that selection took place and is still influenced by the sun. In this case the environment has had a direct impact on the phenotype
- It is possible to express the relationship in a formula
 - *phenotype = genotype + the influence of the environment*

as conditions change
so do uses: we have to
adapt.

is 't zo goed?



Vogelkop Bowerbird