

Why (not) use a **scythe**? A discussion  
of tools, skill, power and  
sustainability

Wynand Boonstra  
Stockholm Resilience Centre

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Wijn

&

and



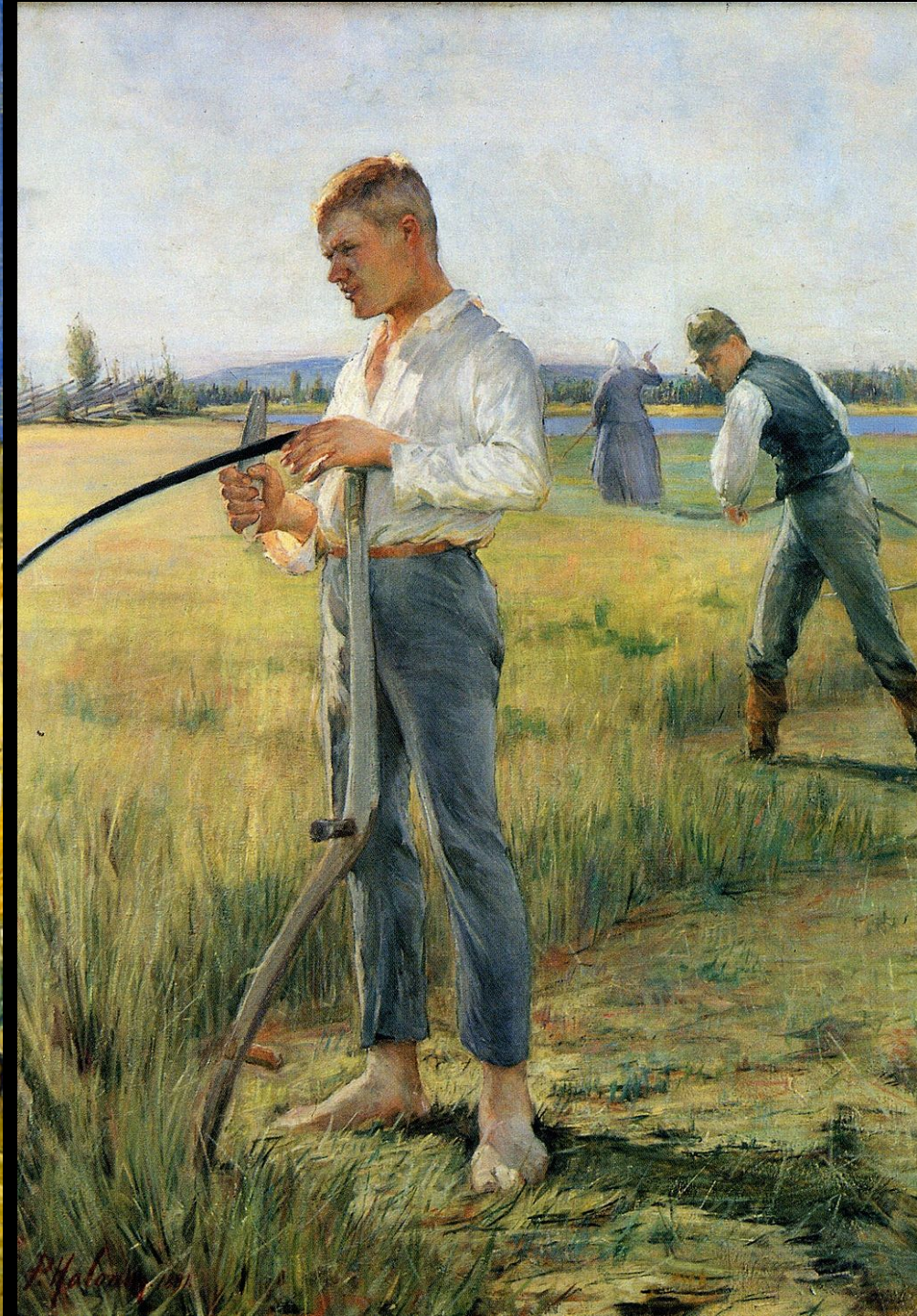
& !



# To discuss

- A **definition**: Tool or technology?
- Homo faber: A **history** of toolmaking
- Techno optimist or pessimist? Technology and **nature**
- The **power** of the machine and other tools
- Alienation: Technology as environmental **ethics**









# Tool or technology?

- “Technologies are not just **objects** but also the **skills** needed to use them” (Nye 2006: 4).
- the **totality** of tools, machines, systems and processes used in the practical arts and engineering (Johan Beckmann 1802)
- The sum total of systems of machines and techniques that underlie a **civilization** (Mumford)
- A comprehensive term for **complex systems** of machines and techniques (Nye 2006: 15).

# Technology as imagination and skill

- “Every tool always at least implies one small story. There is a situation; something needs doing” (Nye 2006: 5).
- “every tool is known through the body” (Nye 2006: 4)
- Code of technology (Galtung 1982)



Working knowledge: Skill  
and community in a small  
shop (Harper 1987)



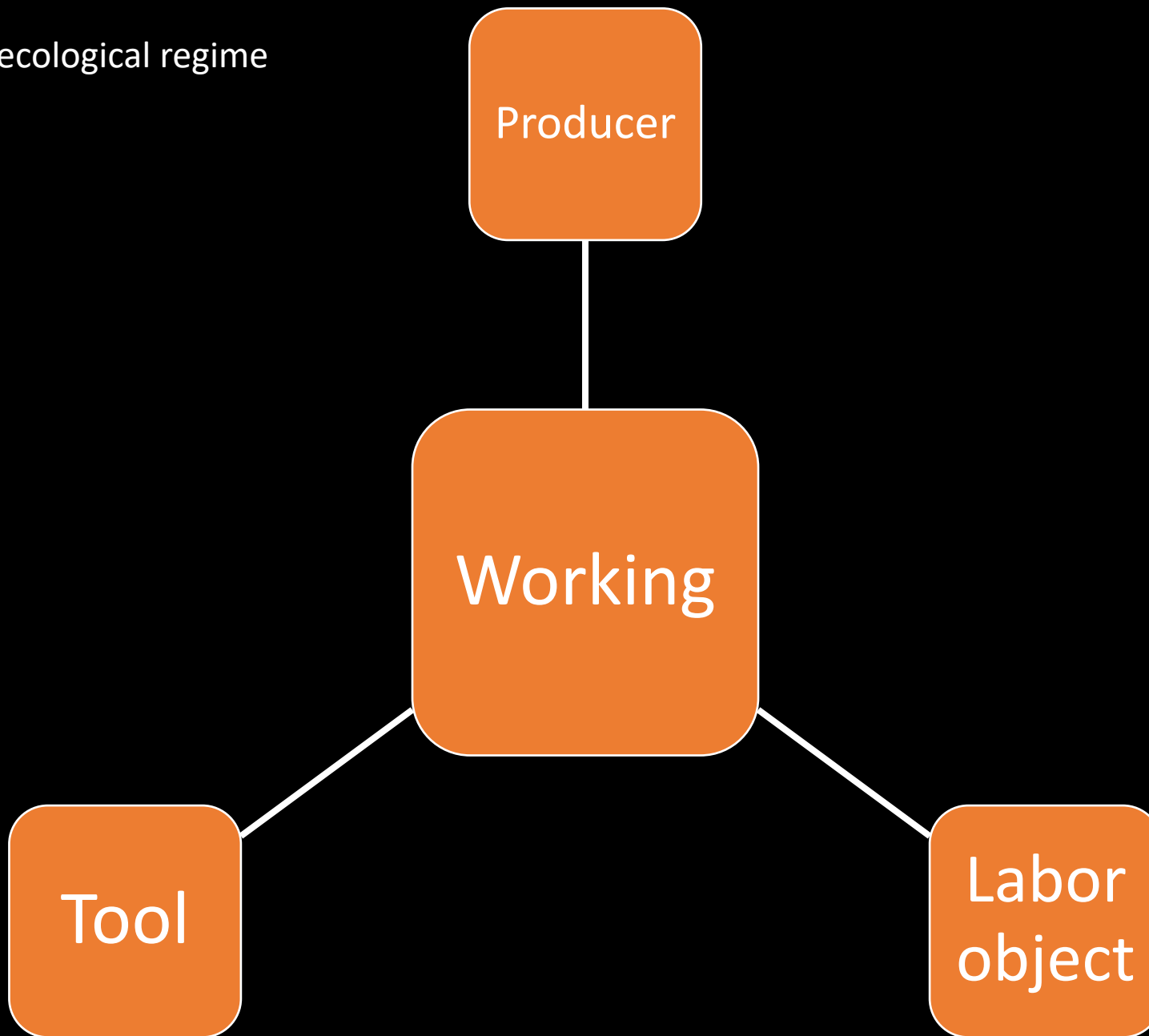
Social-ecological regime

Producer

Working

Tool

Labor  
object





Solstizio archiepiscopus trisept

iulius astrum



16  
**K**alendae primus qui ueteres populi legisq. sacerdos.  
**E**xtitit incensi primusq. litauit ad aram  
**A**aron orditur iuli saceratq. kalendas  
**H**as quoq. contemptos mundi carilephus honorat  
**VII** Processus sextas retinet cum martiniano  
**N**onas martiri laeto irradiantq. decore  
**VII** Pontifices quintas anatholius eulogiusq.  
**III** Lauriane tenes meritorum nomine quartas  
**O**ssa q. martini tumulo mutata ueritas  
**III** Domitius ternas dicit & clarissima zoe  
**D**uxit martirio coetum quae iure beatum  
**III** Eximius uatum pridie defectus in orbe  
**M**artirio isaias uirtute atq. ore coruscet  
**T**ranquilline simul duplici splendore refulges  
**S**cōrum genitor scō comitate premissos  
**T**umq. goar xpi colitur famulusq. sacerq.  
**N**antheni nonis splendet meritumq. fidesq.  
**VIII** Octauo ante idus cilianus procopiusq.  
**E**xcellent xpm uirtute & morte secuti



# *Homo faber*



*Harmand et al. Nature* volume 521, pages 310–315 (2015)



# Major technological **transitions** (Kelly 2010)

- Primate communication → Language
- Oral lore → Writing/mathematical notation
- Scripts → Printing
- Book knowledge → Scientific method
- Artisan production → Mass production
- Industrial culture → Ubiquitous global communication

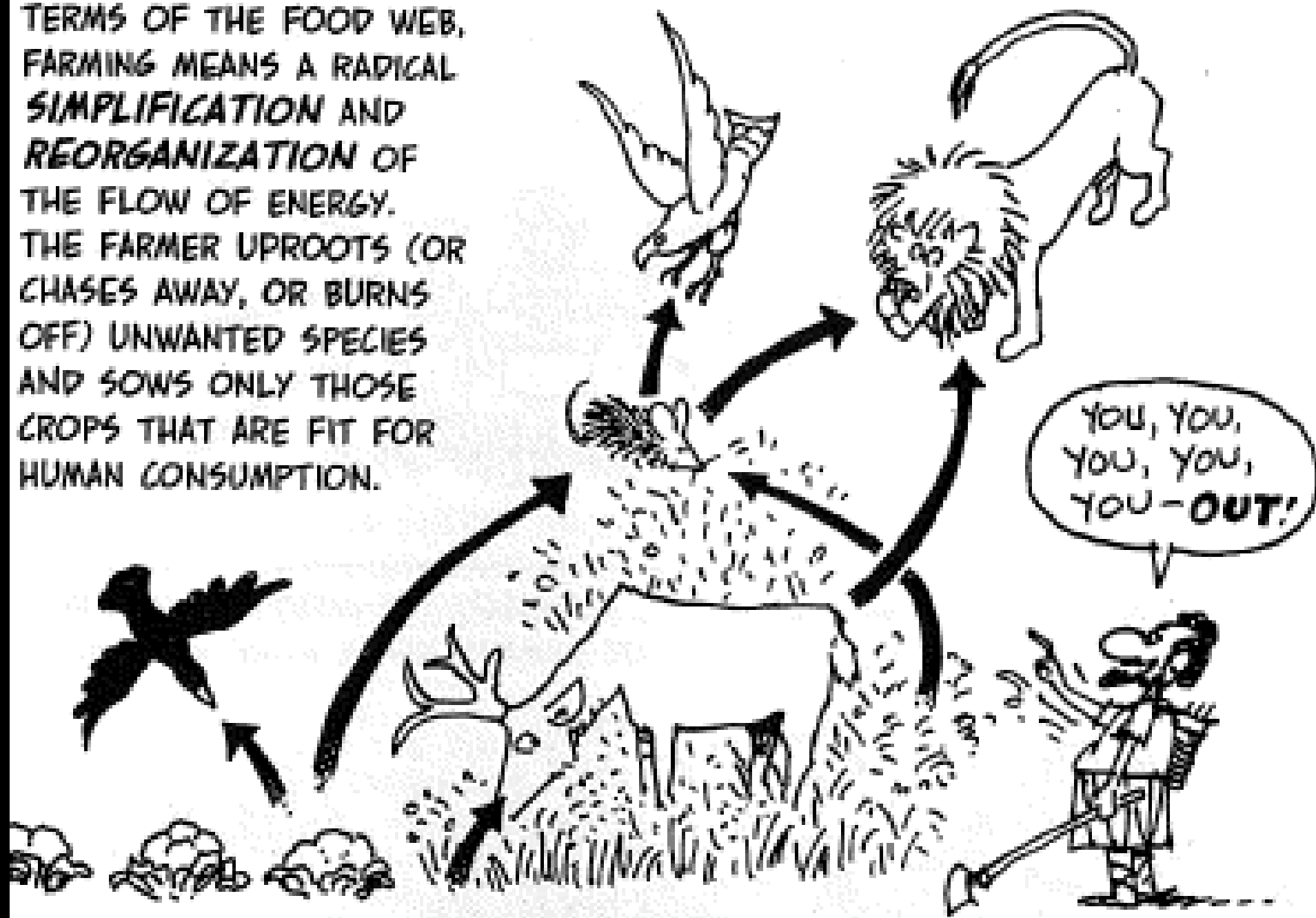


WHAT'S SO  
FUNDAMENTAL  
ABOUT IT?

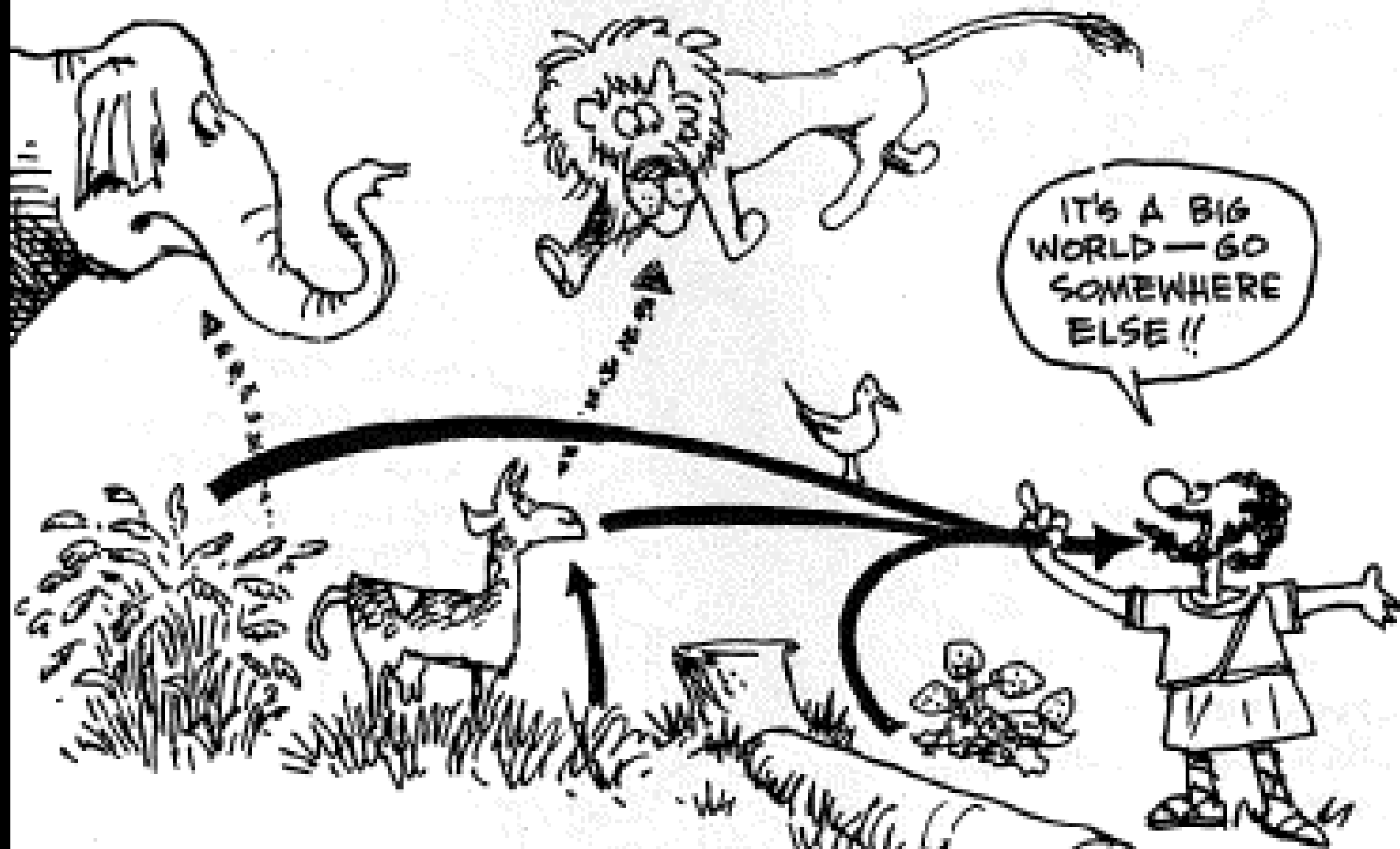
OH,  
EVERYTHING...



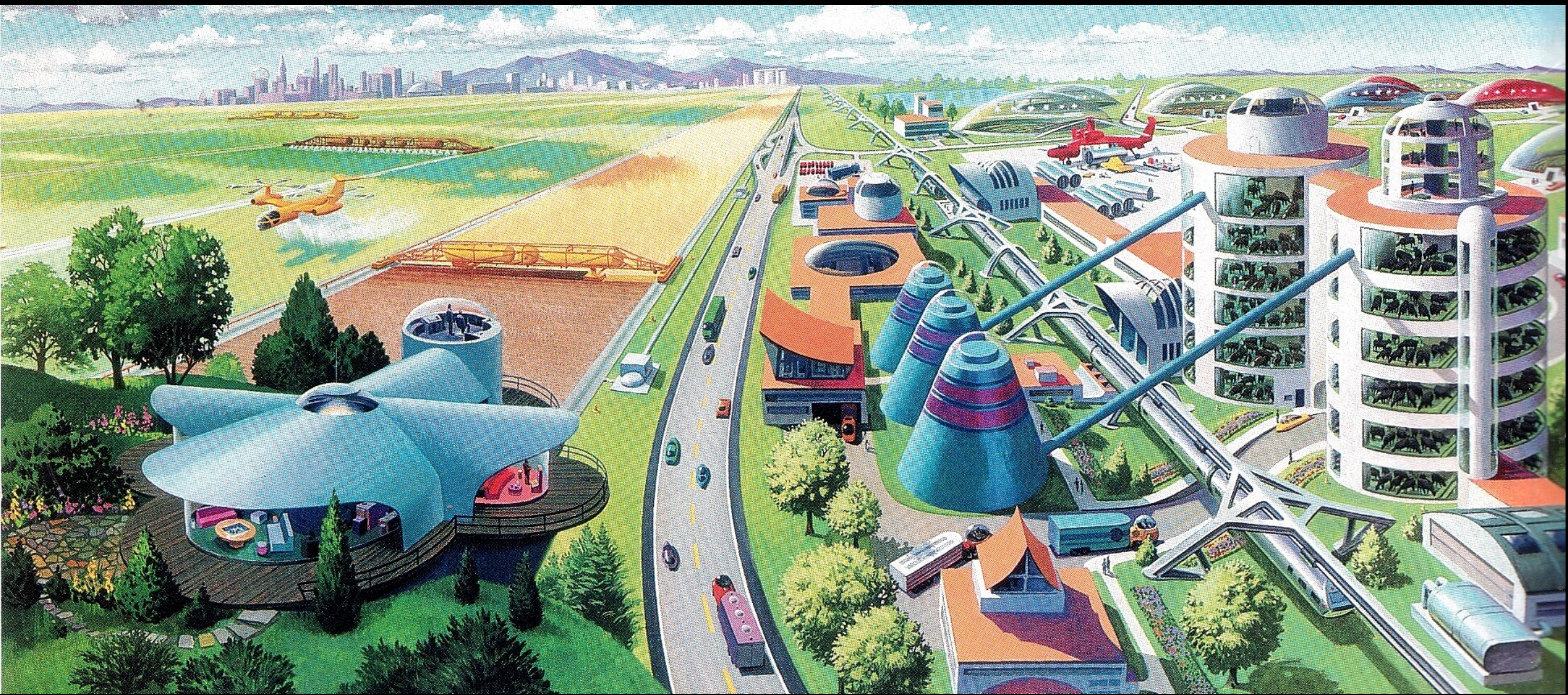
WHAT IS AGRICULTURE? IN  
TERMS OF THE FOOD WEB,  
FARMING MEANS A RADICAL  
**SIMPLIFICATION** AND  
**REORGANIZATION** OF  
THE FLOW OF ENERGY.  
THE FARMER UPROOTS (OR  
CHASES AWAY, OR BURNS  
OFF) UNWANTED SPECIES  
AND SOWS ONLY THOSE  
CROPS THAT ARE FIT FOR  
HUMAN CONSUMPTION.



IN THIS WAY, ALL (OR NEARLY ALL) THE PLANT ENERGY ON A GIVEN PLOT OF GROUND NOW FLOWS INTO HUMAN MOUTHS AT THE EXPENSE OF THE OTHER SPECIES THAT USED TO FIND A NICHE THERE.



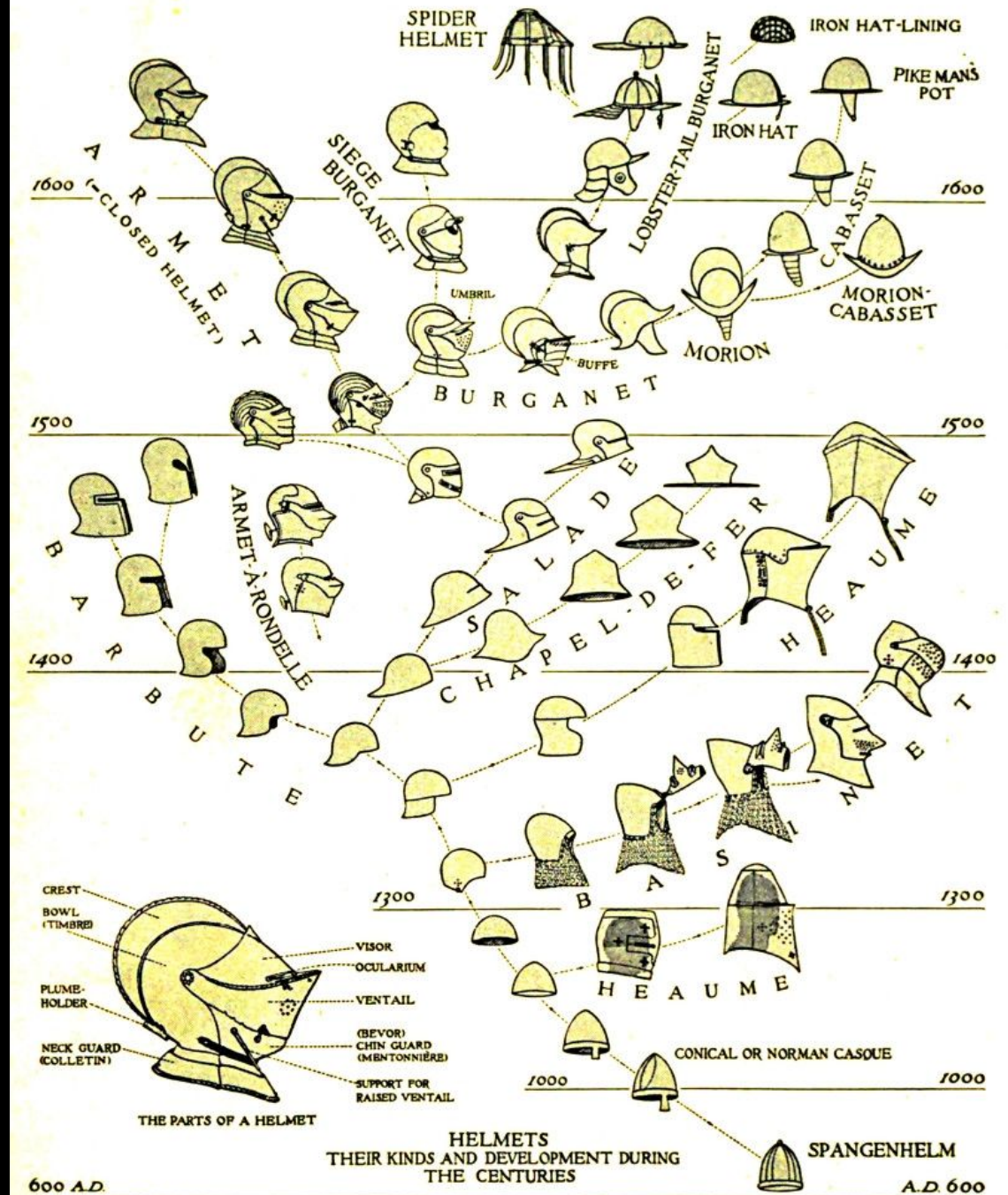






# Technological change

- Self-reinforcing. Tools will produce new tools.
- Unforeseen
- Unanticipated
- Complex
- Relative autonomy
- Self-amplifying



# Techno optimist or pessimist? Technology and nature

“Planet fetishers dream of returning to Eden, restoring a state of harmony in which wilderness reclaims the planet and man is lost in the foilage, a smart but self-effacing ape. The Managers dream of a man-made paradise, an earth managed by wise humans in its own best interest and , by happy, chance, humankind’s as well.” (Eisenberg 1998: xv)



# The **power** of the machine and other tools

- “The machine cannot be divorced from its larger social pattern; for it is this pattern that gives it meaning and purpose” (Mumford cited in Nye 2006: 13).
- “The hand-mill gives you society with the feudal lord; the steam-mill, society with the industrial capitalist” (Marx).

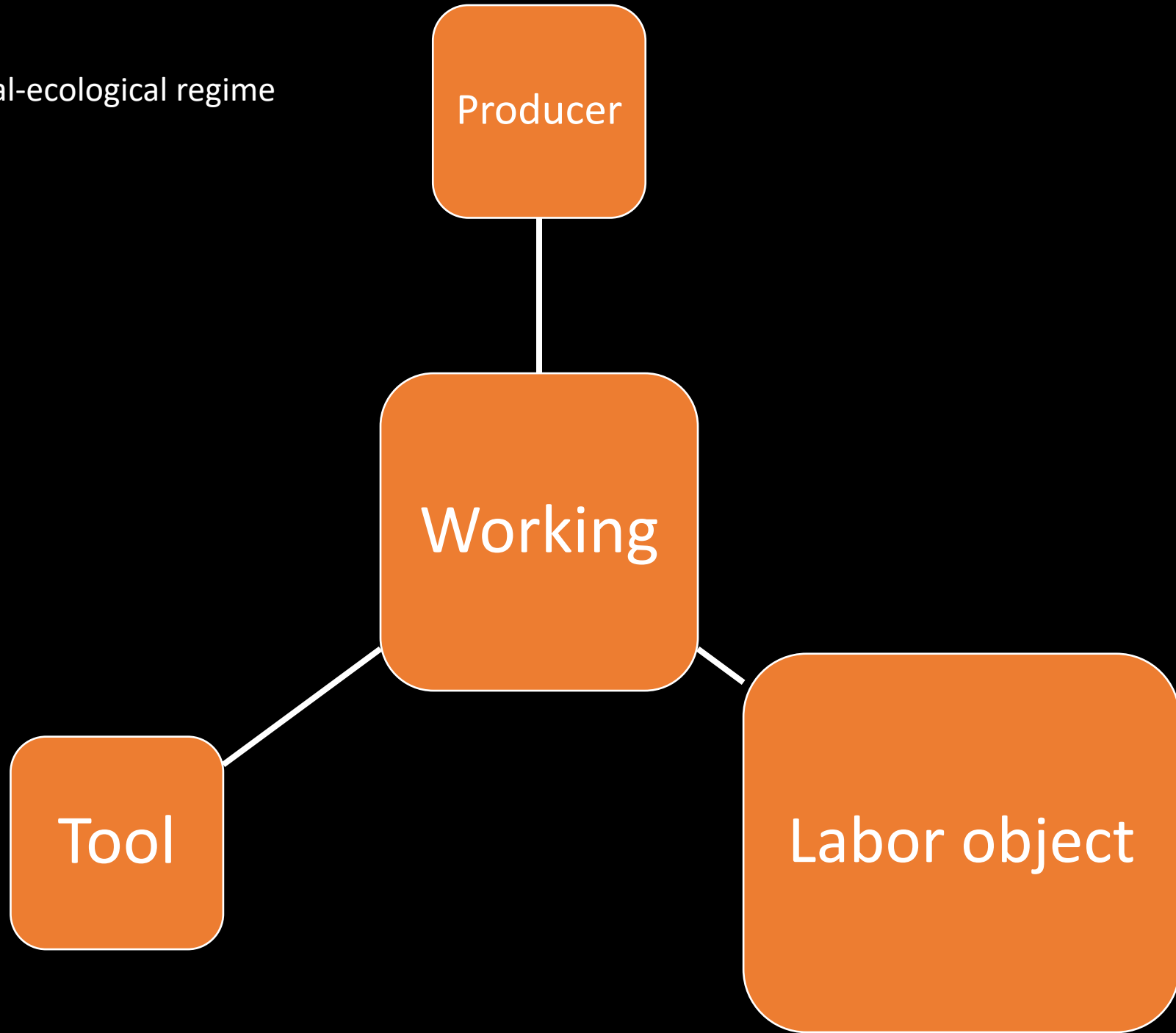
Social-ecological regime

Producer

Working

Tool

Labor object



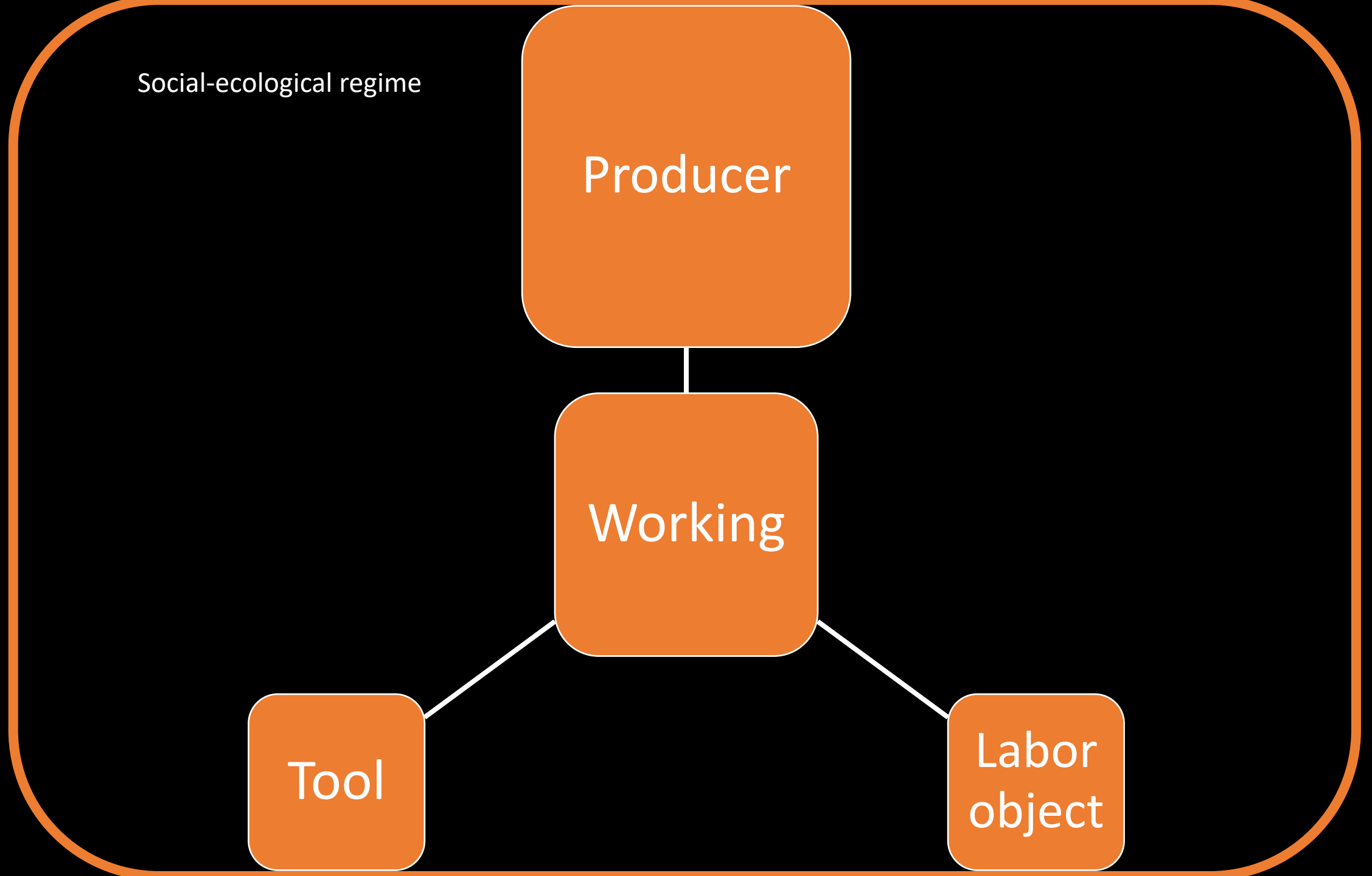
Social-ecological regime

Producer

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Tool

Labor  
object



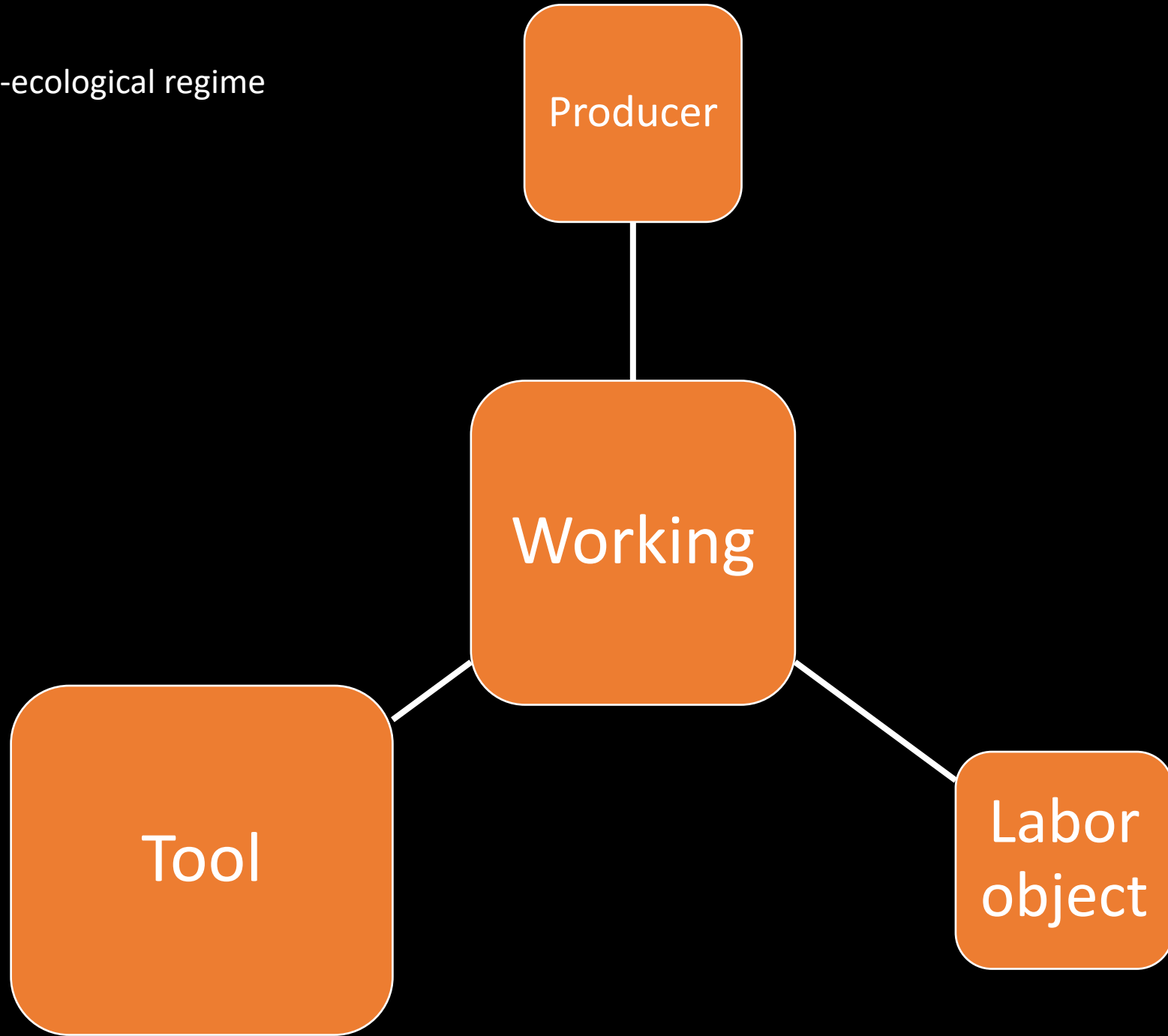
Social-ecological regime

Producer

Working

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Labor  
object





# Amish

- They are selective. They know how to say no and are not afraid to refuse new things. They ignore more than they adopt.
- They evaluate new things by experience instead of by theory. They let the early adopters get their jollies by pioneering new stuff under watchful eyes.
- They have criteria by which to make choices: Technologies must enhance family and community and distance them from the outside world.
- The choices are not individual but communal. The community shapes and enforces technological direction.

## Conviviality (Illich): Technology and social-environmental ethics

- An anxiety that comes from not feeling part of the context in which you find yourself
- Make distinctions between different levels and types of engagement with the world
- Evaluate technology in relation to their power of organising life (social-ecological).
- Experience of direct responsibility and care

# Thank you!

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