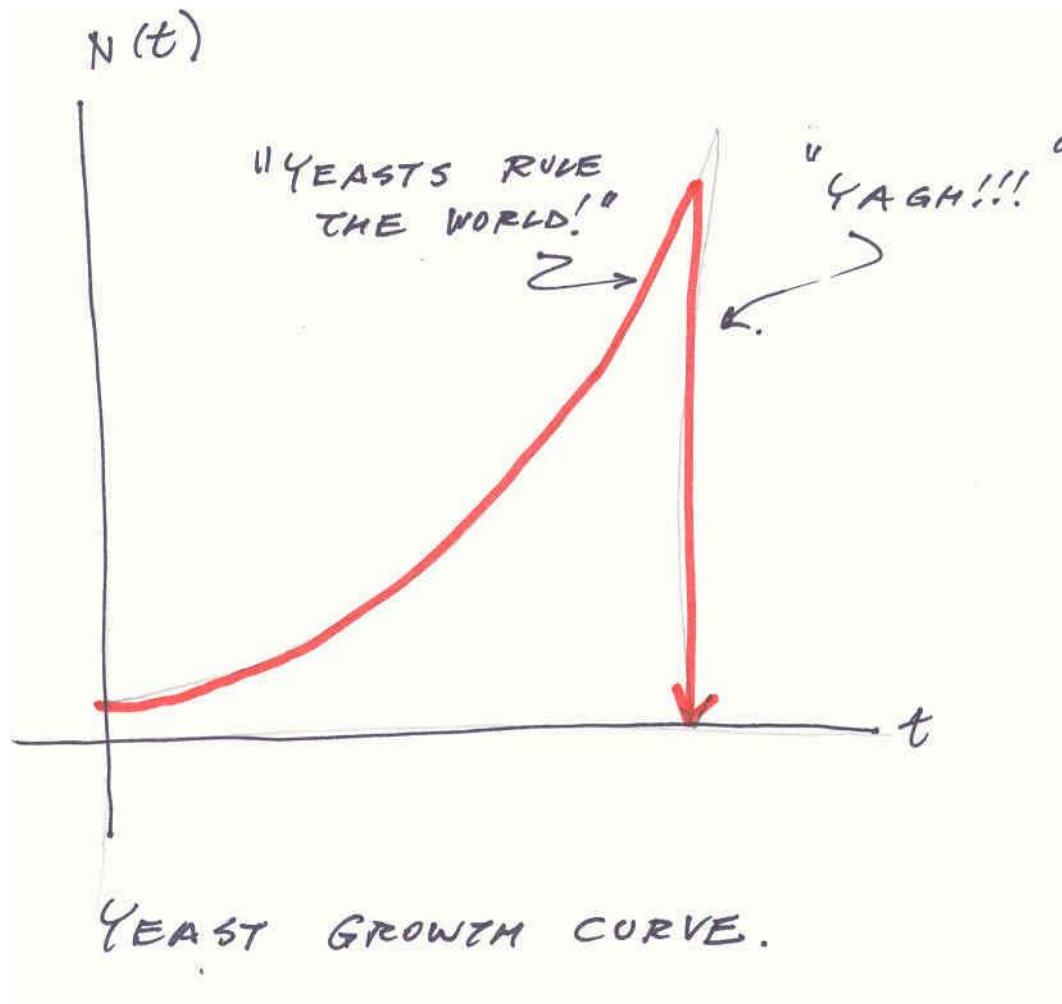


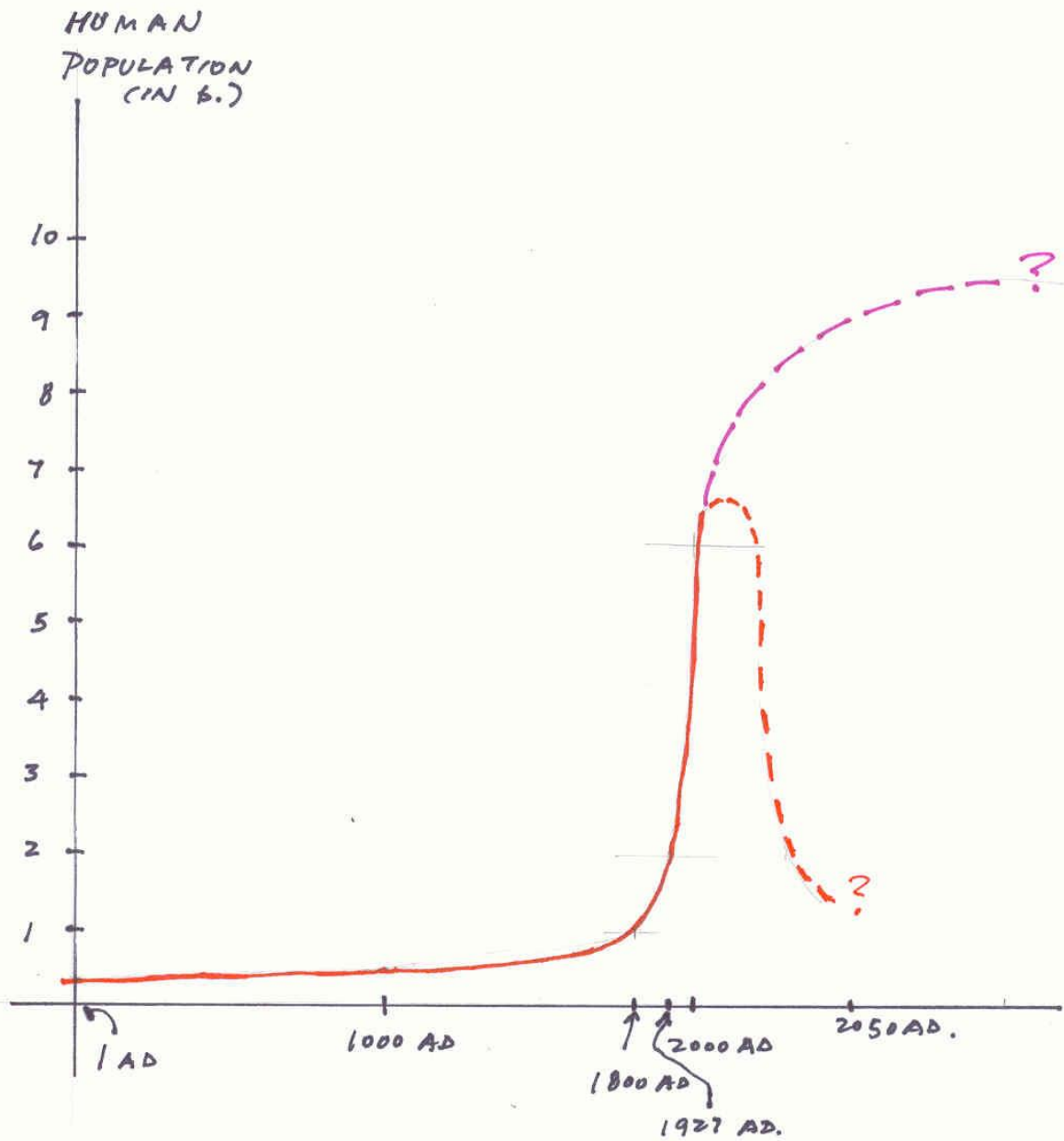
# Allowing Rather Than Forcing: Population Control for the 21st Century

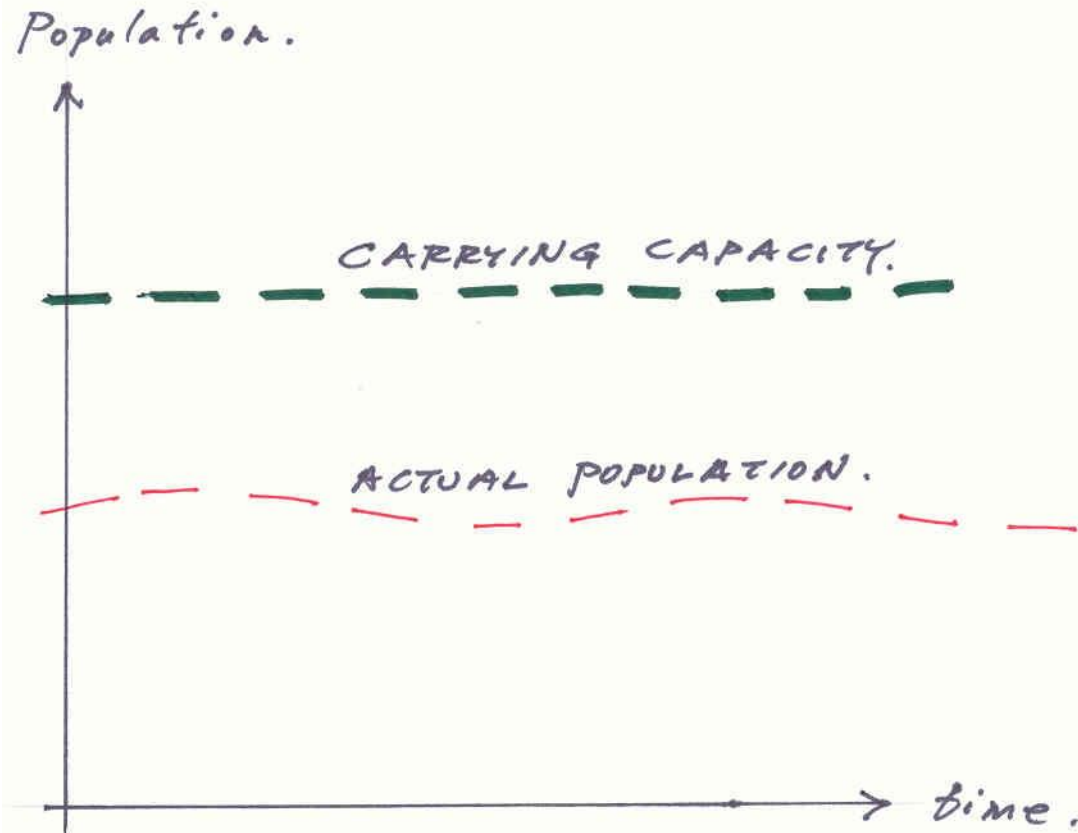
2007

Kent Peacock  
Department of Philosophy  
University of Lethbridge

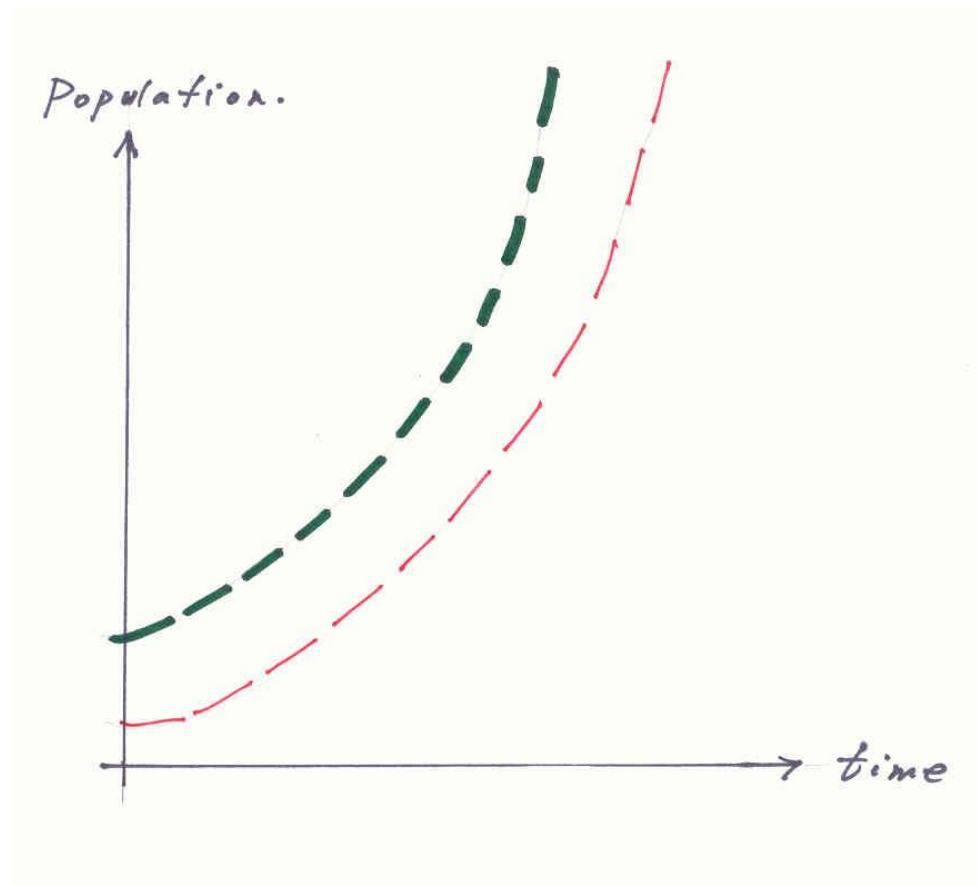
“People have been having children for many generations.”



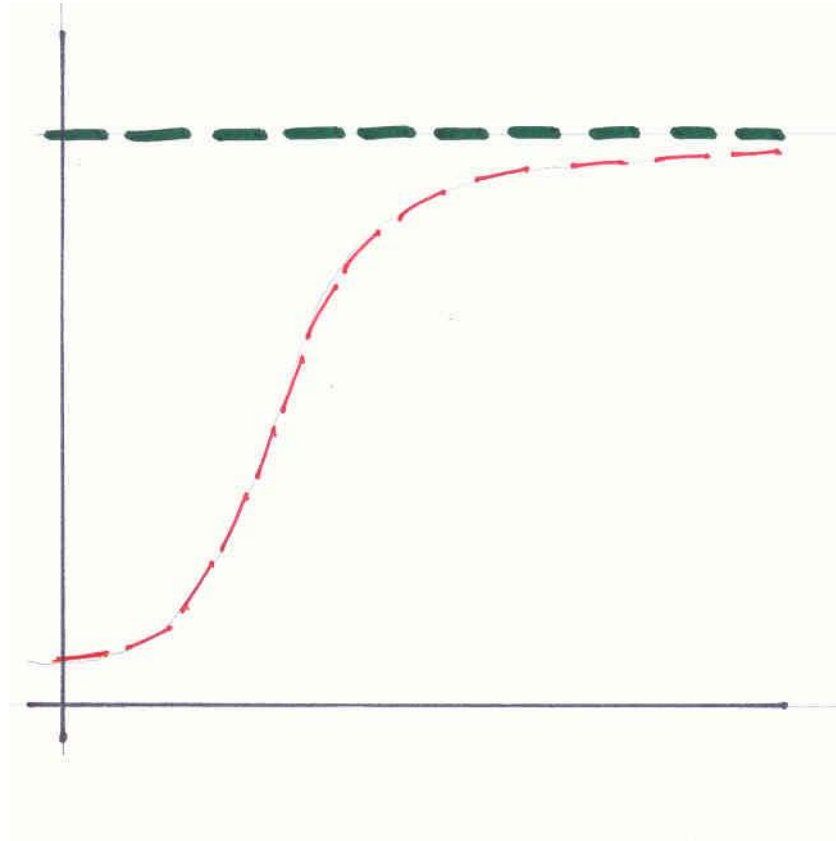




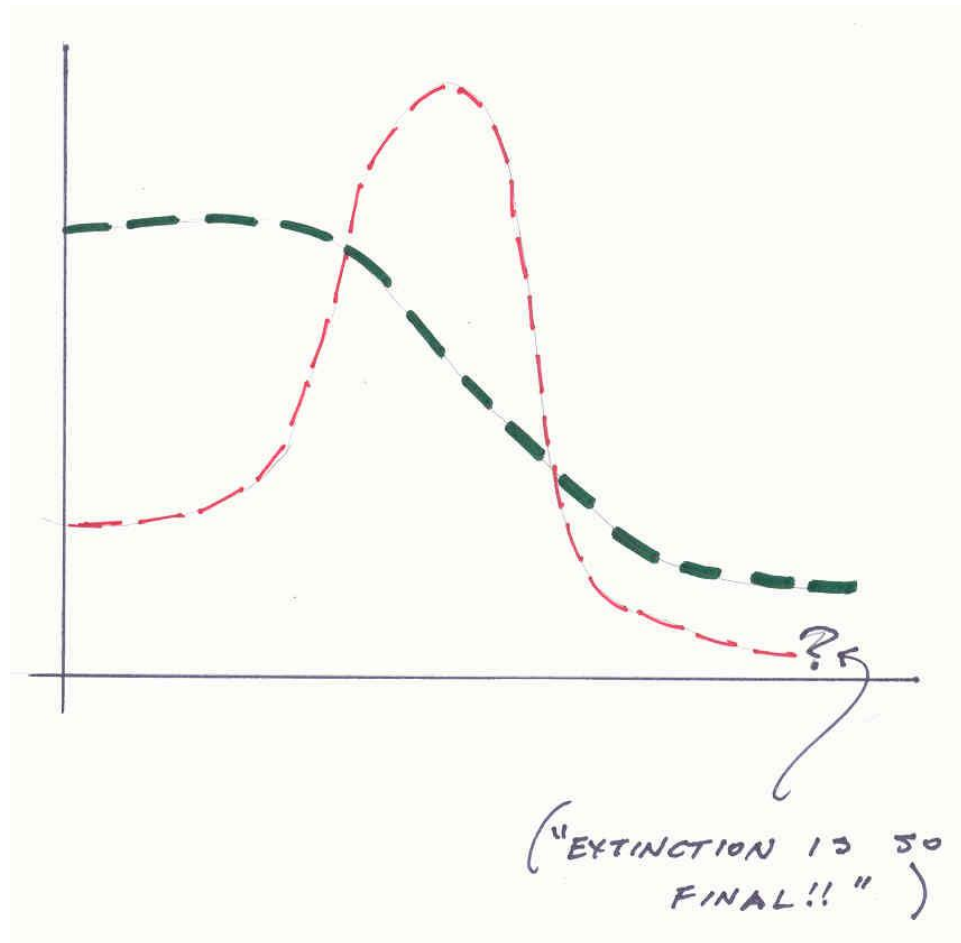
Theoretical sustainable state.  
Sometimes can occur, to a  
rough approximation...!



Sustainable growth; not possible on a finite planet!



What the UN hopes for: a “sigmoid” curve...

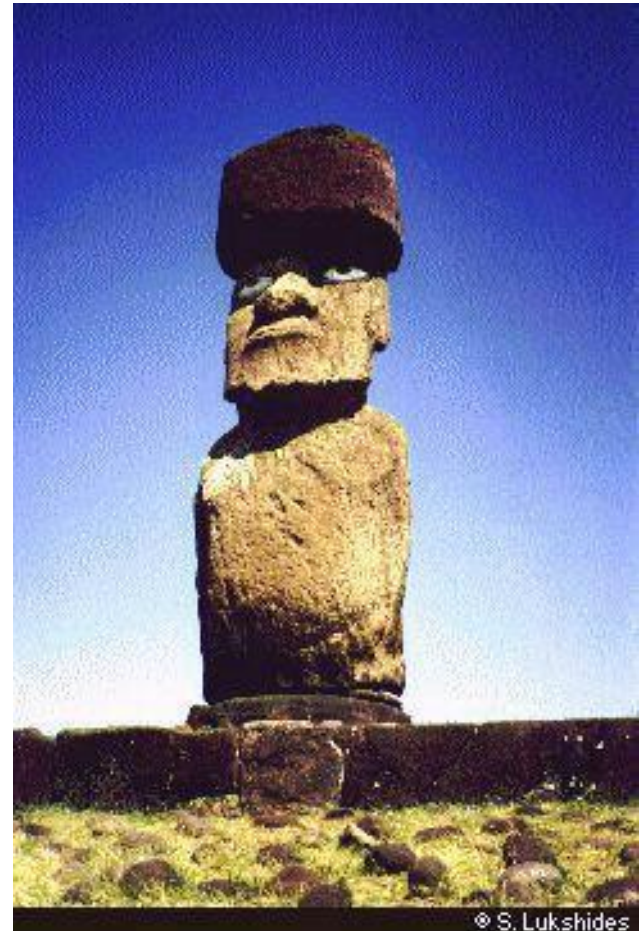


What we risk: overshoot followed by collapse.



# Easter Island

- “Textbook” example of Malthusian crisis: overshoot leading to collapse.
- Their culture was marked by obsession with symbols, intensifying toward the grim end.
- Will we “Easter Island” the planet?



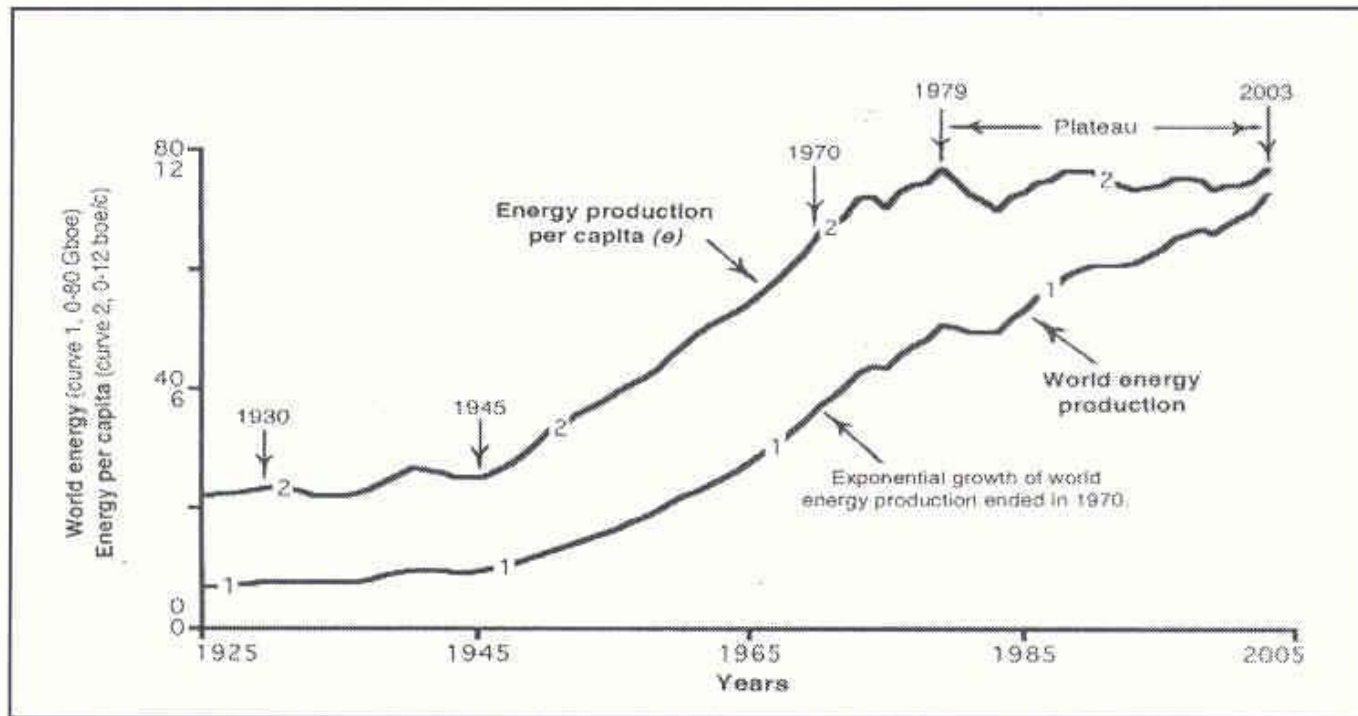
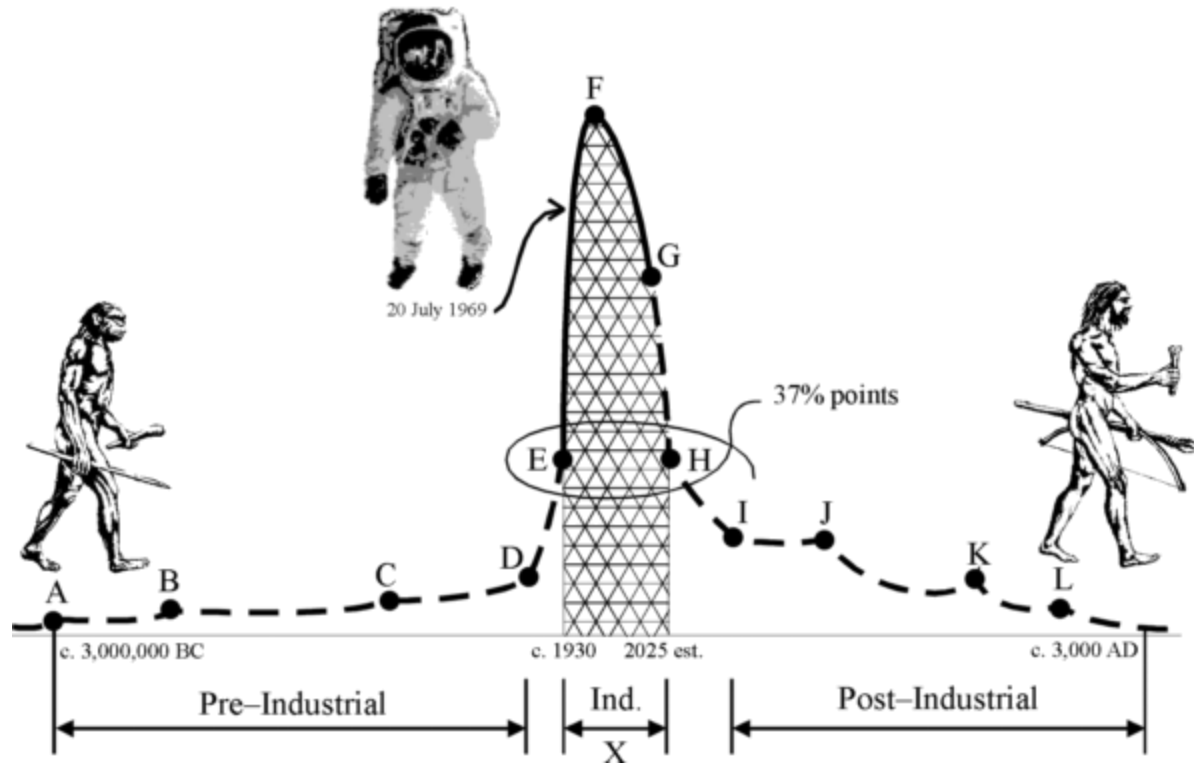


Figure 2. World energy production and energy production per capita. Data sources: 1) for energy – Romer (1985) for 1850-1964 and British Petroleum (2004) for 1965-2003; 2) for population – UN (2004) for 1850-1949 and USCB (2004) for 1950-2003.

Richard C. Duncan's "Olduvai Theory," according to which actual population is a function of energy per capita.



Where we are headed – soon! – according to Duncan.

# Rev. Tom Malthus



- *Essay on the Principle of Population* (1798)
- One of the most influential statements of the pessimistic view that most people must always be in “misery” because of population pressure.

# What Rev. Tom Said

- Claimed to eschew all speculation; presented a biophysical diagnosis of the human condition.
- Population, when unchecked, will increase geometrically (exponentially); True!
- Subsistence can only increase arithmetically; not quite True!
- For humans as well as other species, there will never be enough subsistence to go around.
- For other species, the inevitable result is death before reproductive age for most individuals.

# What Rev. Tom *Really* Said

- For humans, there are two consequence of population pressure: misery (war, famine, pestilence, poverty...) and *vice*.
- Vice: included all sorts of bad behavior such as crime; but also included *contraception* and *non-procreative sex*.
- Malthus knew that contraception and non-procreative sex could reduce population pressure, but thought that we *should not* practice these things because they are immoral.

# Amen, brother!

- “Vice is a highly probable consequence, and we therefore see it abundantly prevail, but it ought not, perhaps, to be called an absolutely necessary consequence. *The ordeal of virtue is to resist all temptation to evil.*”
- At a crucial point in the argument, Malthus’ *Essay* turns into a sermon on the virtue of enduring misery!

- Malthus expressed regret at the suffering of the poor, but he argued that if their lot was made better (especially by welfare measures such as the Poor Laws) they would only breed faster.



# Historical Counter-example?

- Tikopia: tiny (<2 sq. mi.) island in West Polynesia; under continuous human habitation for 3000 years.
- Practice intensive horticultural treatment of land (“permaculture”).
- Followed strict population control: contraception, abortion, infanticide, celibacy, even (rarely) mass suicide.
- Mostly forms of vice, according to Malthus!

- Hence Malthus was wrong if he thought this was impossible.
- But there is no question that it is rare and hard to achieve.
- Why did the Easter Islanders fail (on a much larger island) where the Tikopians succeeded?

# Two Models of Population Control

- Coercive:
  - China:
  - One child per family, brutally enforced.
  - Coupled with bias for male children, has led to huge gender imbalance.
- Permissive:
  - State of Kerala, India
  - About 32 million; high population density
  - Birth rate is below replacement.
  - High literacy, especially among women.

# The Numbers Tell a Story

- Kerala:
  - 16 infant deaths/1000 for girls, 17/1000 for boys
  - Female/male ratio  $>1$  (only such state in India); no “missing women” here!
  - Population growth (1.7) is now below replacement rate.
- China:
  - 33/1000 infant deaths for girls, 28/1000 for boys
  - Fertility is 1.9, higher than Kerala.

# The best contraceptive....

- Kerala illustrates a fact that is also apparent in other countries: the best predictor of low birth rate is *women's literacy*.
  - Kerala makes it a point to promote women's literacy, women's empowerment, basic health care.

# Summing up...

- The huge global population increase was mostly caused by falling death rates (due to medicine, sanitation, agriculture), not increased birth rates.
- Birth rates are usually lower in countries that are more economically prosperous, and lowest when women are literate and are allowed and enabled to exercise their choices over procreation, child care.

- The problem, therefore, is to lower birth rates to match the lowered death rates.
  - Example of Kerala seems to show that the most effective model is to enable people and especially women with the knowledge and facilities they need to exercise control over their own reproduction.
  - This will be strongly and violently resisted where there are patriarchal and authoritarian power structures.

# In a nutshell...

- It seems that the most effective (as well as the most humane!) way to control population is to *allow* people (especially women) to do the right thing, rather than *forcing* them to do it!
- Would this be “vice”? Only Malthus could tell us...!