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• Environmental Ethics and Land Management  
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# Private Lands: Agriculture

Timothy C. Weiskel

*Co-Director, The Climate Talks Project*

Session 7  
2 November 2006

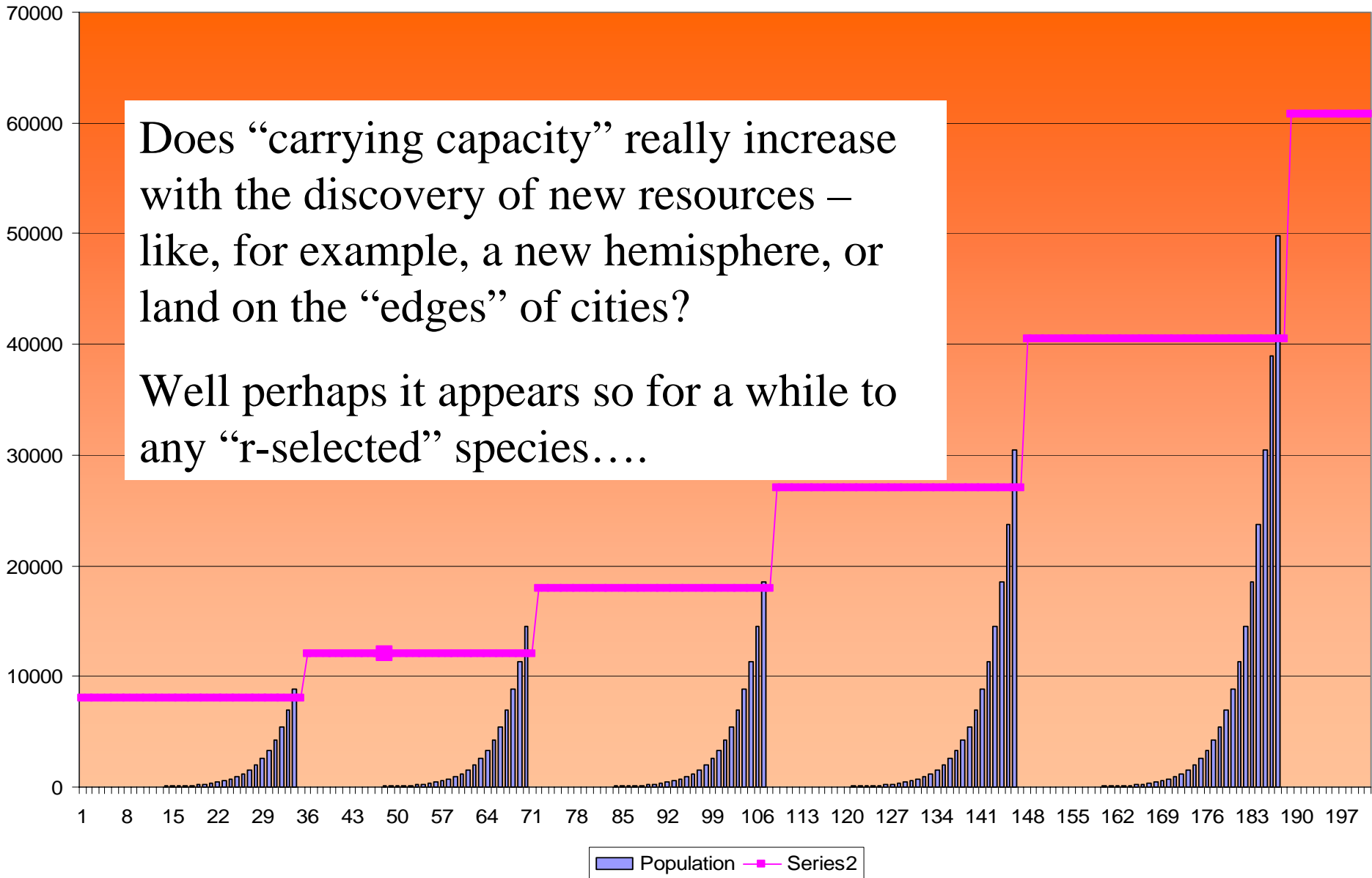
Harvard University Extension School  
Fall Semester 2006

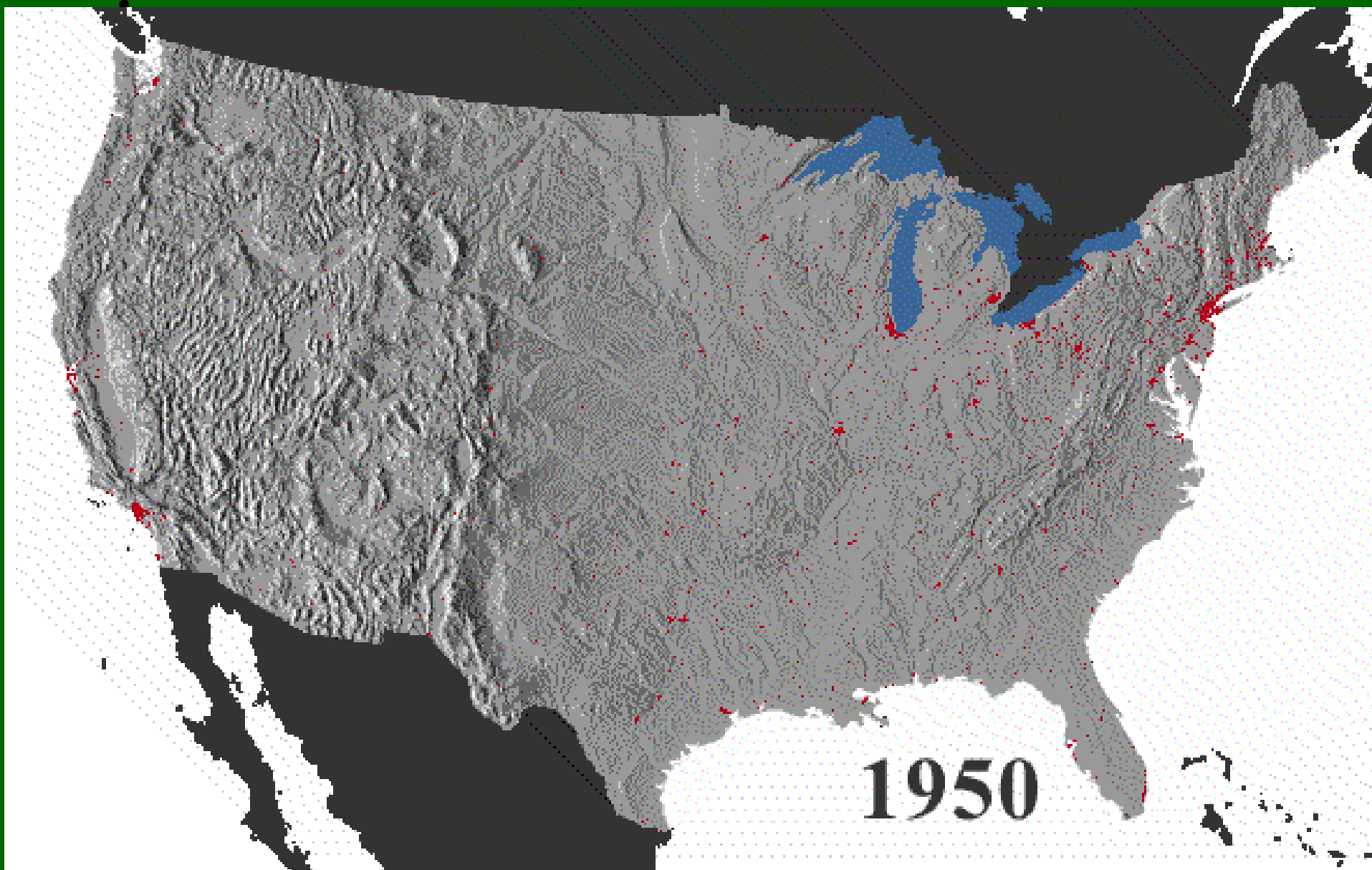


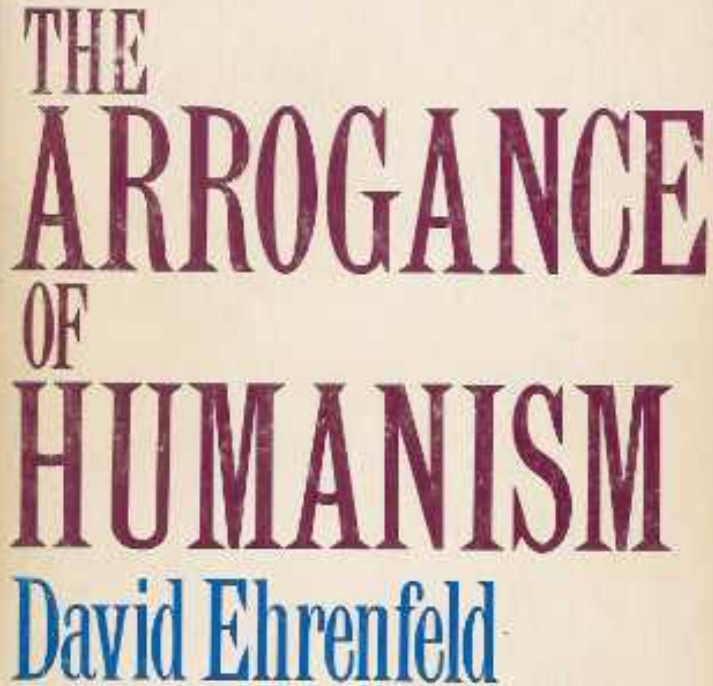
## r-Selected Population Growth with Increase in K

Does “carrying capacity” really increase with the discovery of new resources – like, for example, a new hemisphere, or land on the “edges” of cities?

Well perhaps it appears so for a while to any “r-selected” species....





The image shows the front cover of the book 'The Arrogance of Humanism' by David Ehrenfeld. The title is printed in a large, dark red, serif font, with 'THE' at the top, 'ARROGANCE' in the middle, and 'OF HUMANISM' at the bottom. The author's name, 'David Ehrenfeld', is printed in a smaller, blue, serif font below the title. The background of the cover is a light, off-white color.

THE  
ARROGANCE  
OF  
HUMANISM  
David Ehrenfeld

Central to all our western beliefs -- and something which is at the core of our enduring commitment to a colonialist worldview -- is what has been called the “arrogance of humanism” -- the belief that nature and all that is “out there” is available for us to appropriate and exploit with whatever means necessary.

We feel *entitled* and *empowered* to appropriate anything in the name of growth – especially in the western world. Growth is thought to be both **natural** and **good** and -- in some sense -- inevitable. Growth itself is thought to be ethically self-justifying, and the pursuit of growth is therefore used as moral justification for most public policy decisions concerning the environment or anything else.

Atlanta's growth pattern is not alone in America...

In fact, space science is now making available the technology that make careful urban comparisons possible. \* \*

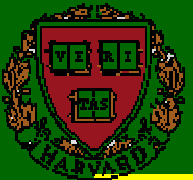
Detroit also provides a classic case study of sprawl *and* its link to racism....

These two simultaneous aspects of sprawl need to be kept in clear focus:

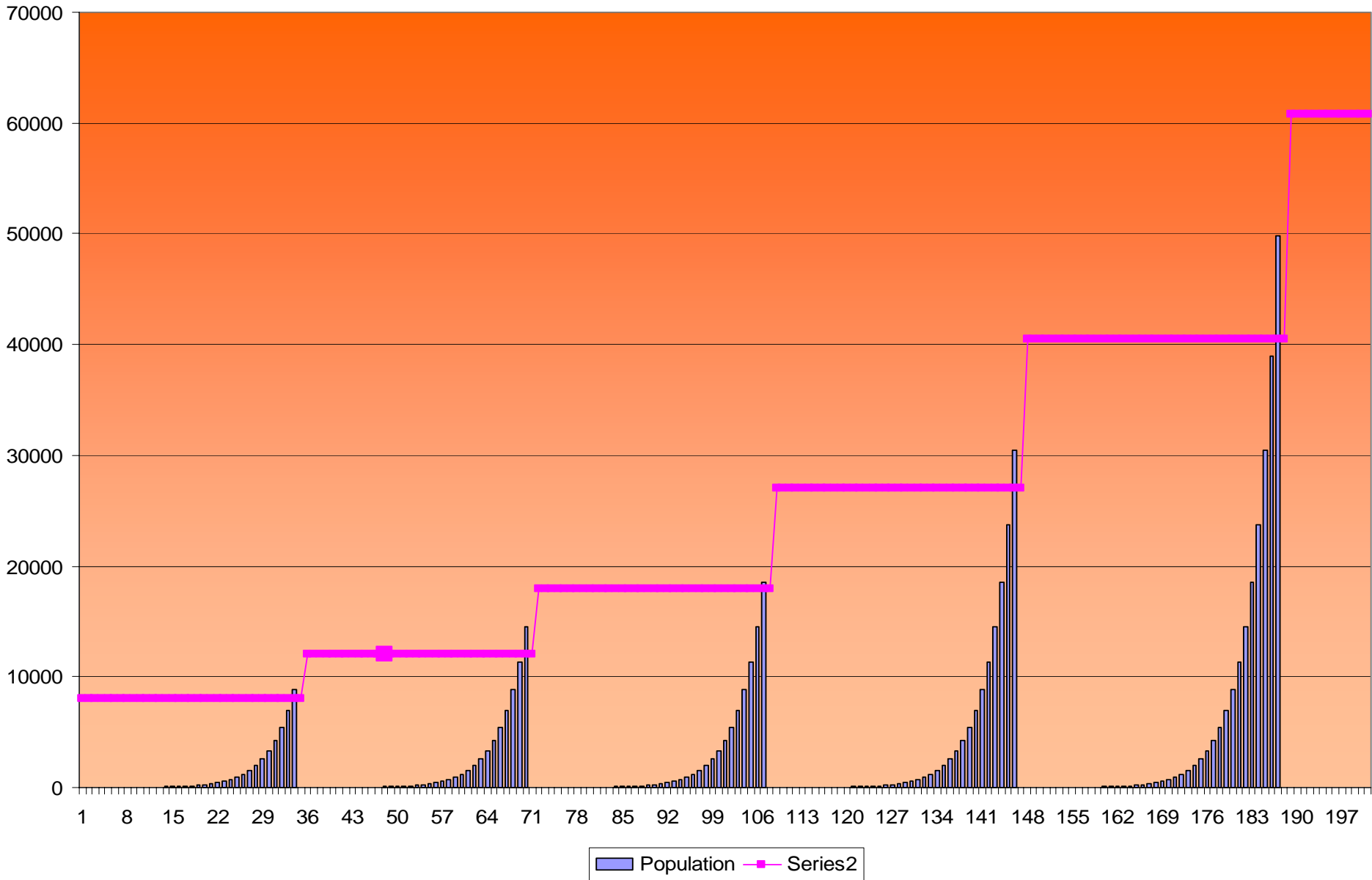
1) the *expansion outward* from the city center to “new” and “virgin” housing tracts \*

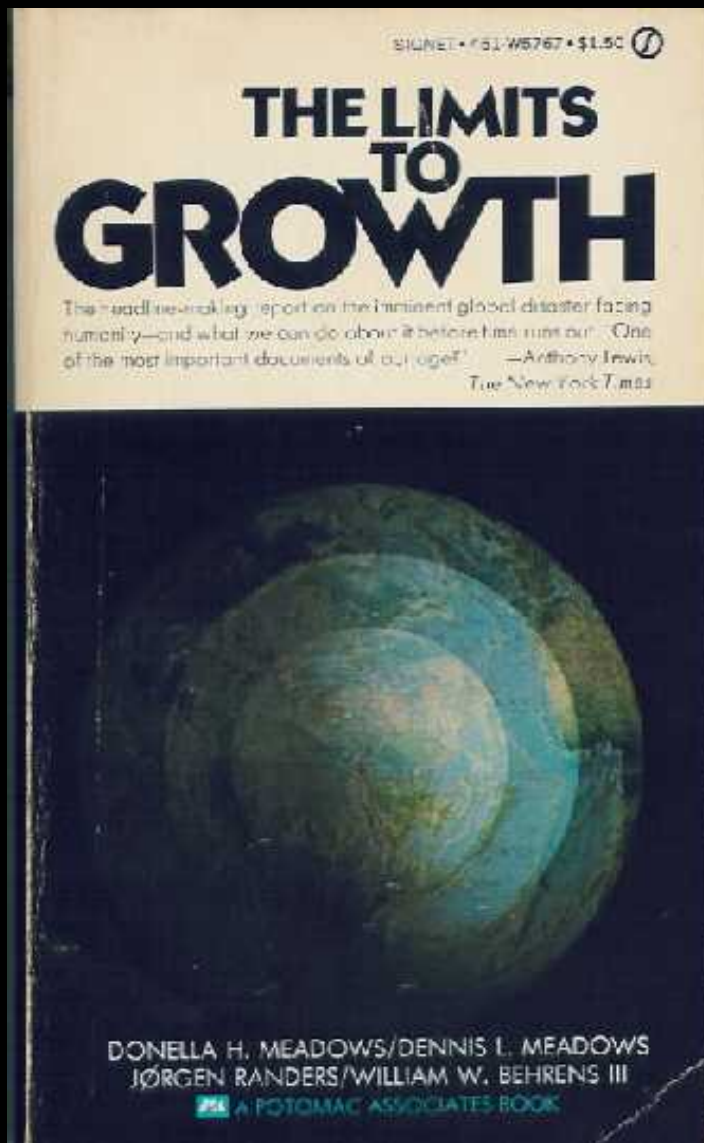
and 2) the *disinvestment in the city* center left behind. \*

We are likely to see “The End of Suburbia” in the relatively near future...



r-Selected Population Growth with Increase in K

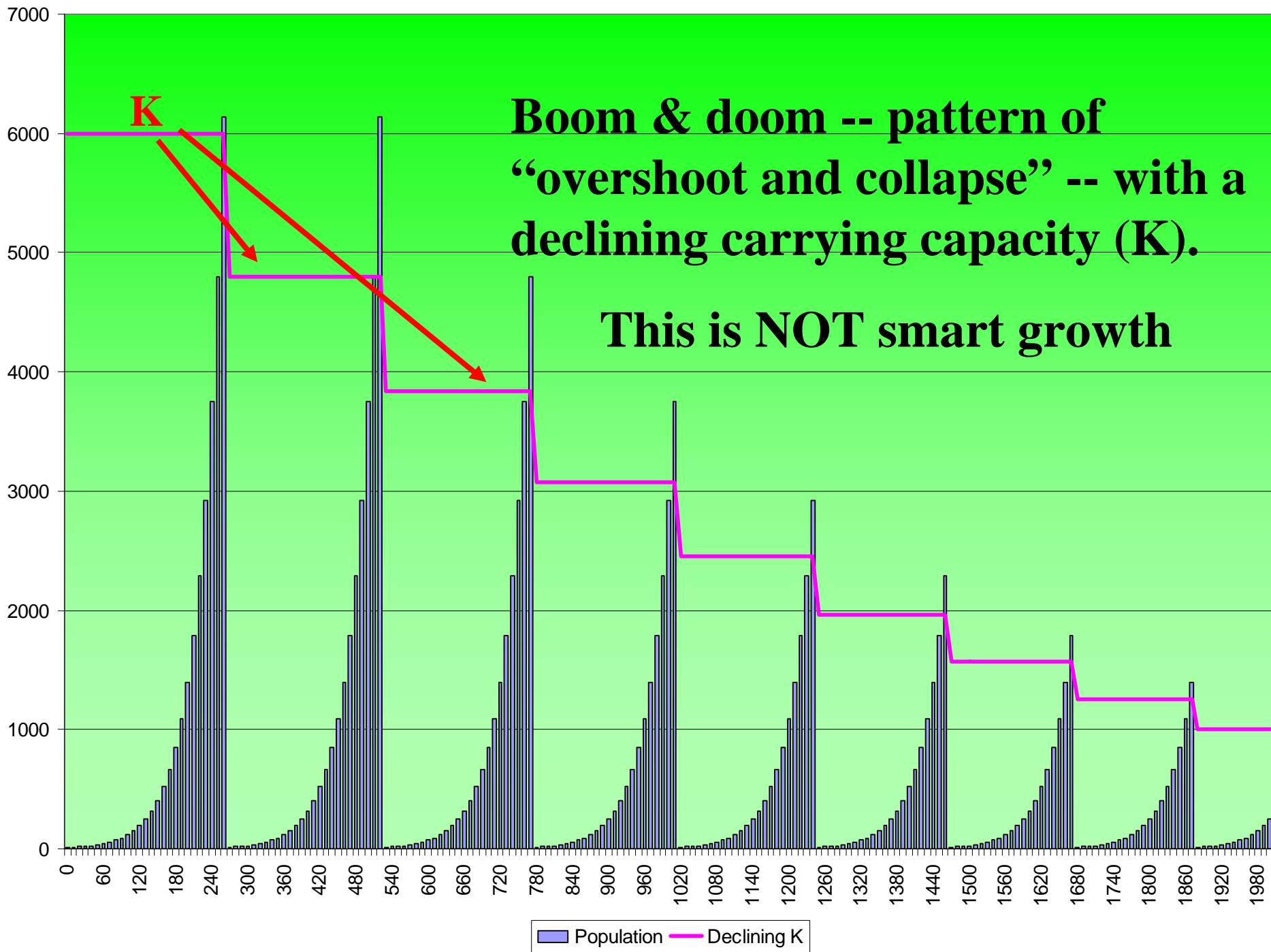




**BUT** using fossil fuels to subsidize primary production has practical limits...

Because of these trends, some have begun to argue that there need to be limits to growth -- limits which we need to learn to impose upon ourselves as a species and as a nation.

The famous statement of this proposition came in **1972** in a Report to the Club of Rome which coincided with the first world conference on the environment in Stockholm.



**Boom & doom -- pattern of “overshoot and collapse” -- with a declining carrying capacity (K).**

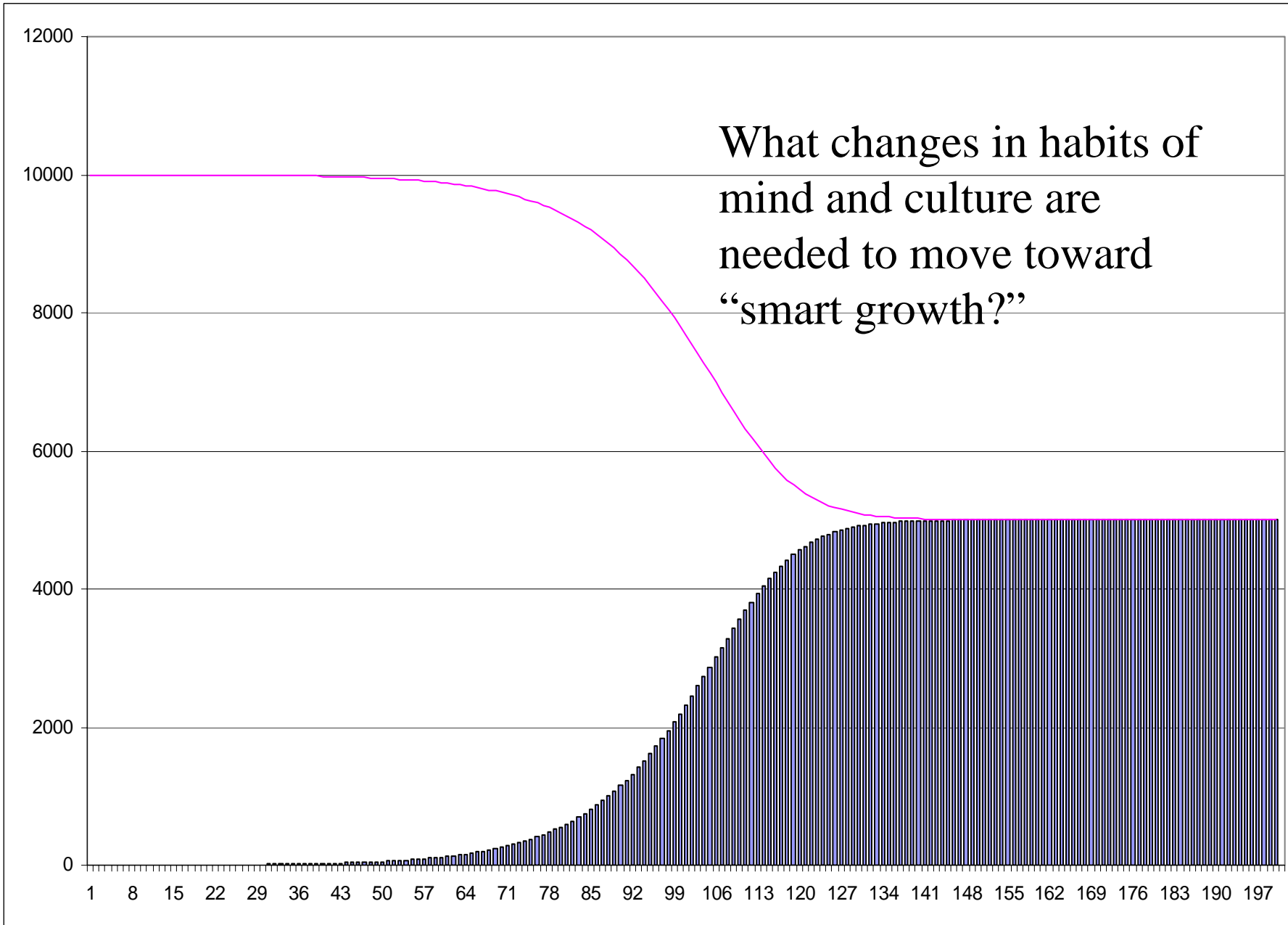
**This is NOT smart growth**

**K**

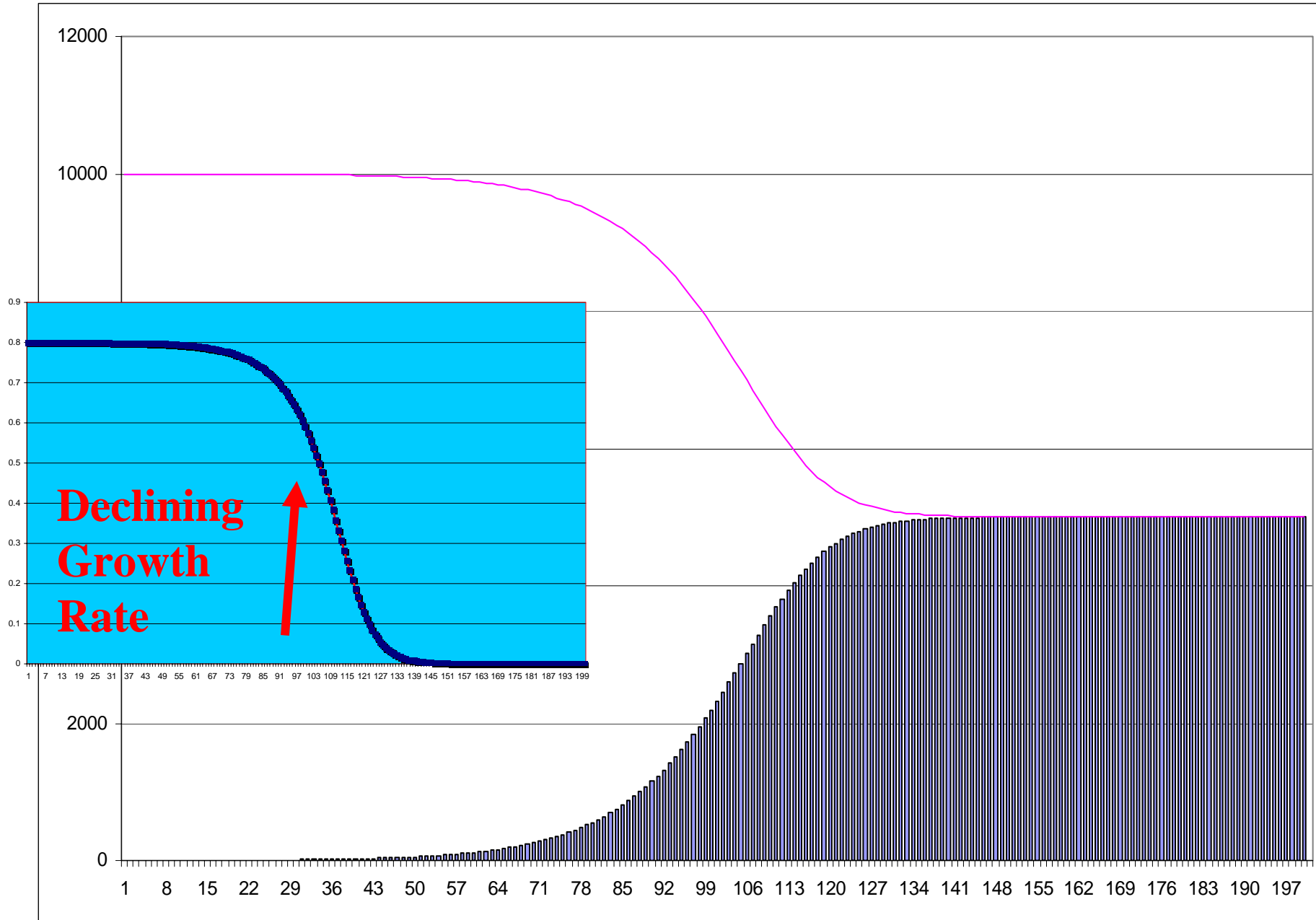
Population Declining K



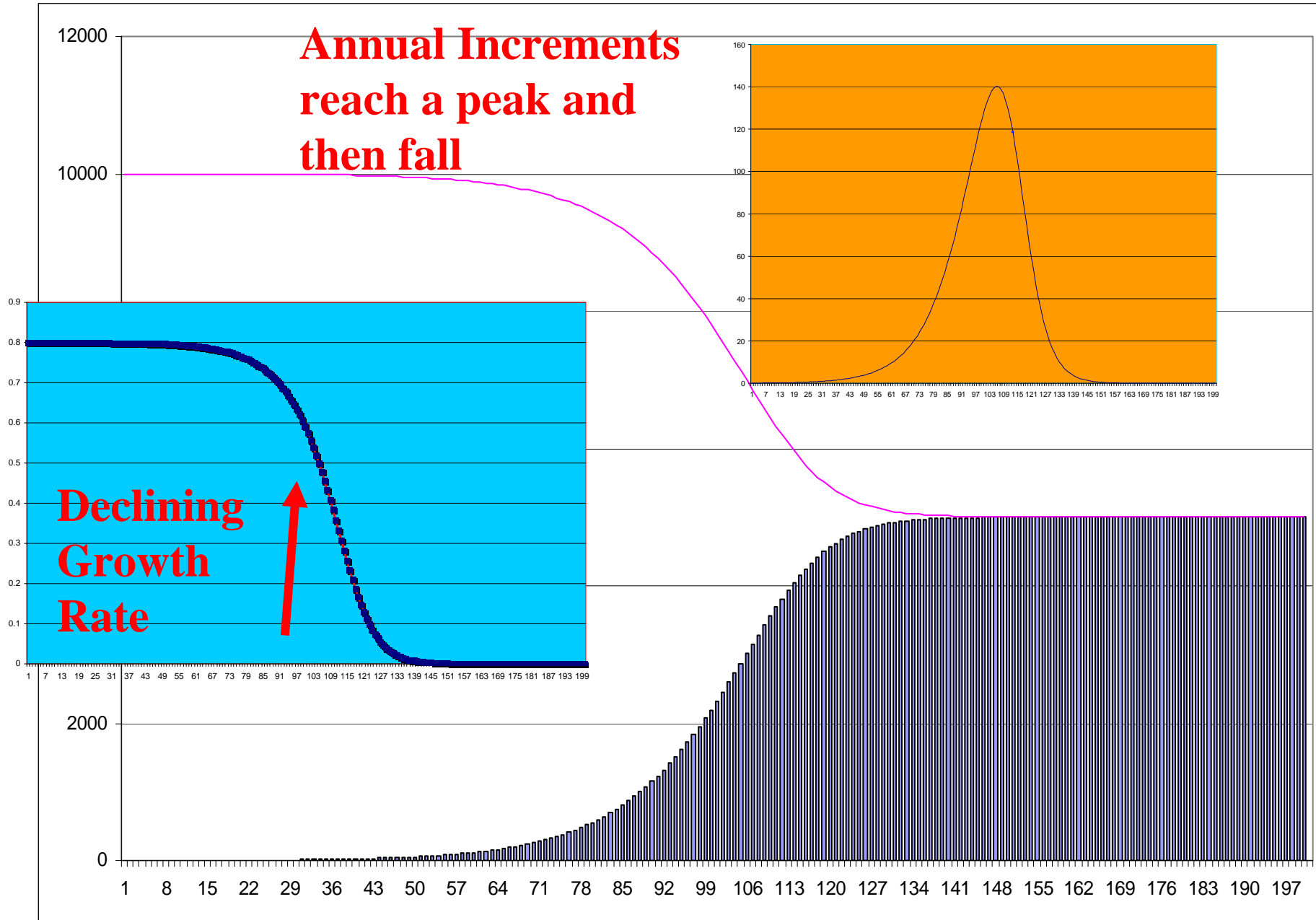
# “Smart Growth” is Self-Limiting Growth



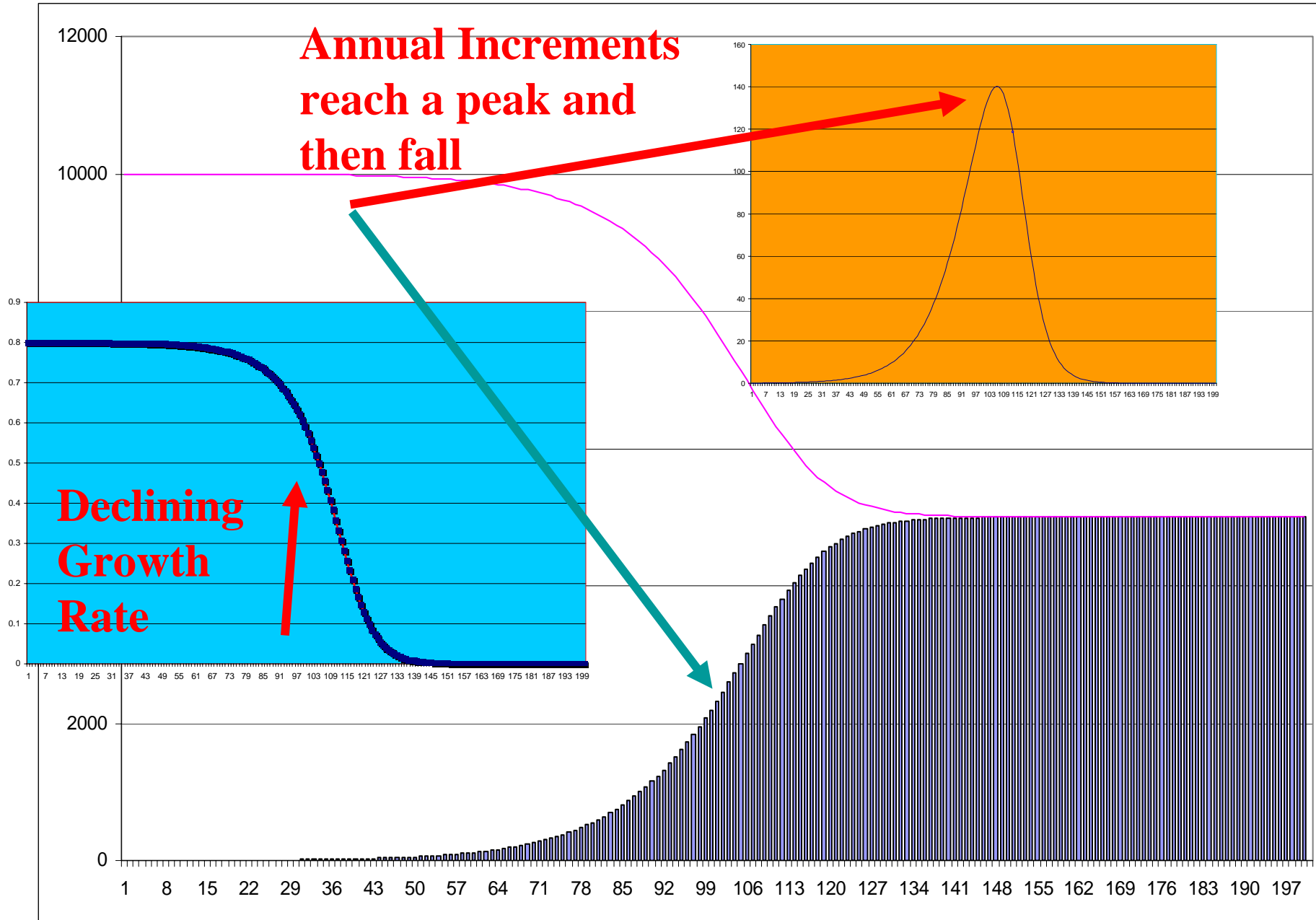
# “Smart Growth” is Self-Limiting Growth



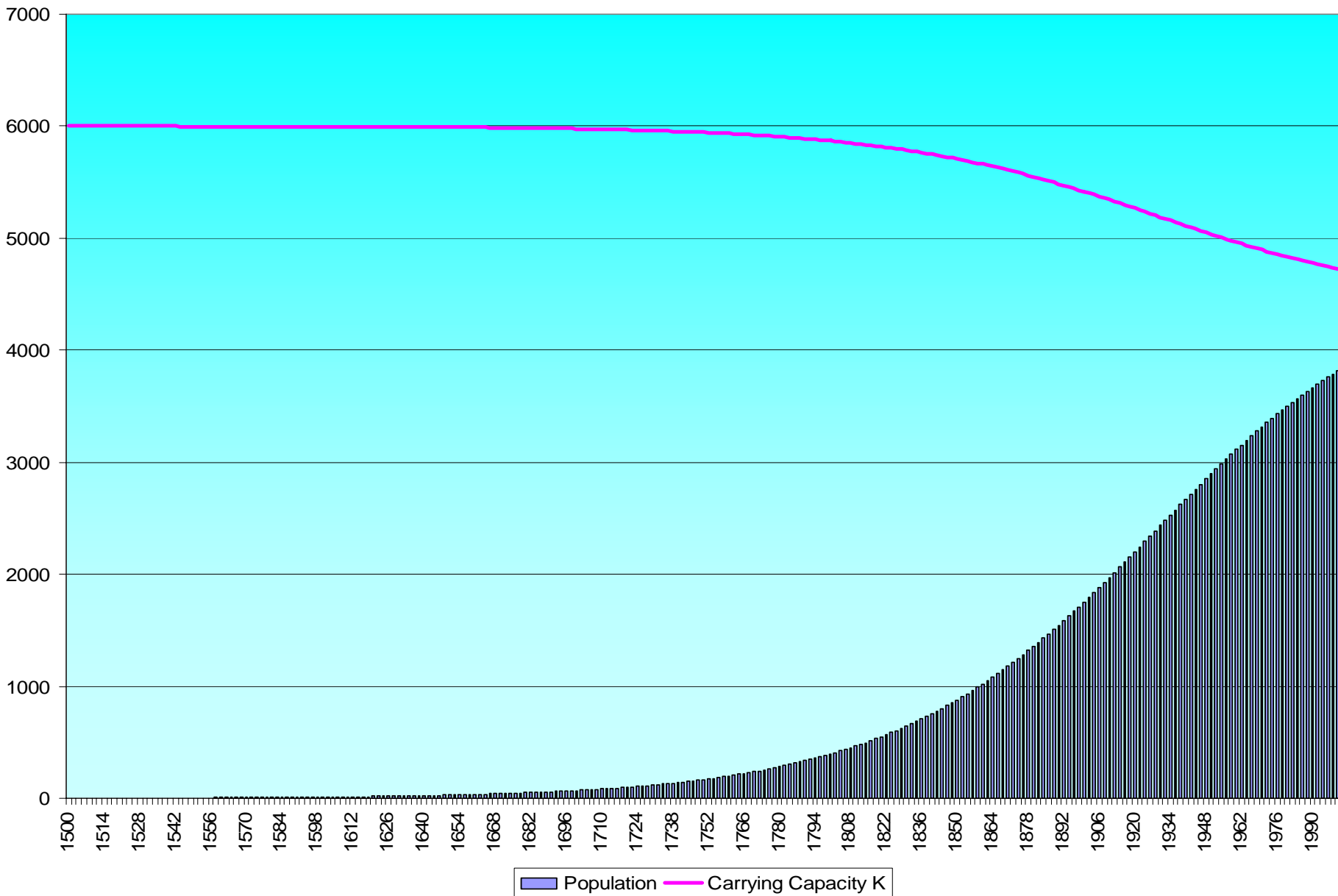
# “Smart Growth” is Self-Limiting Growth



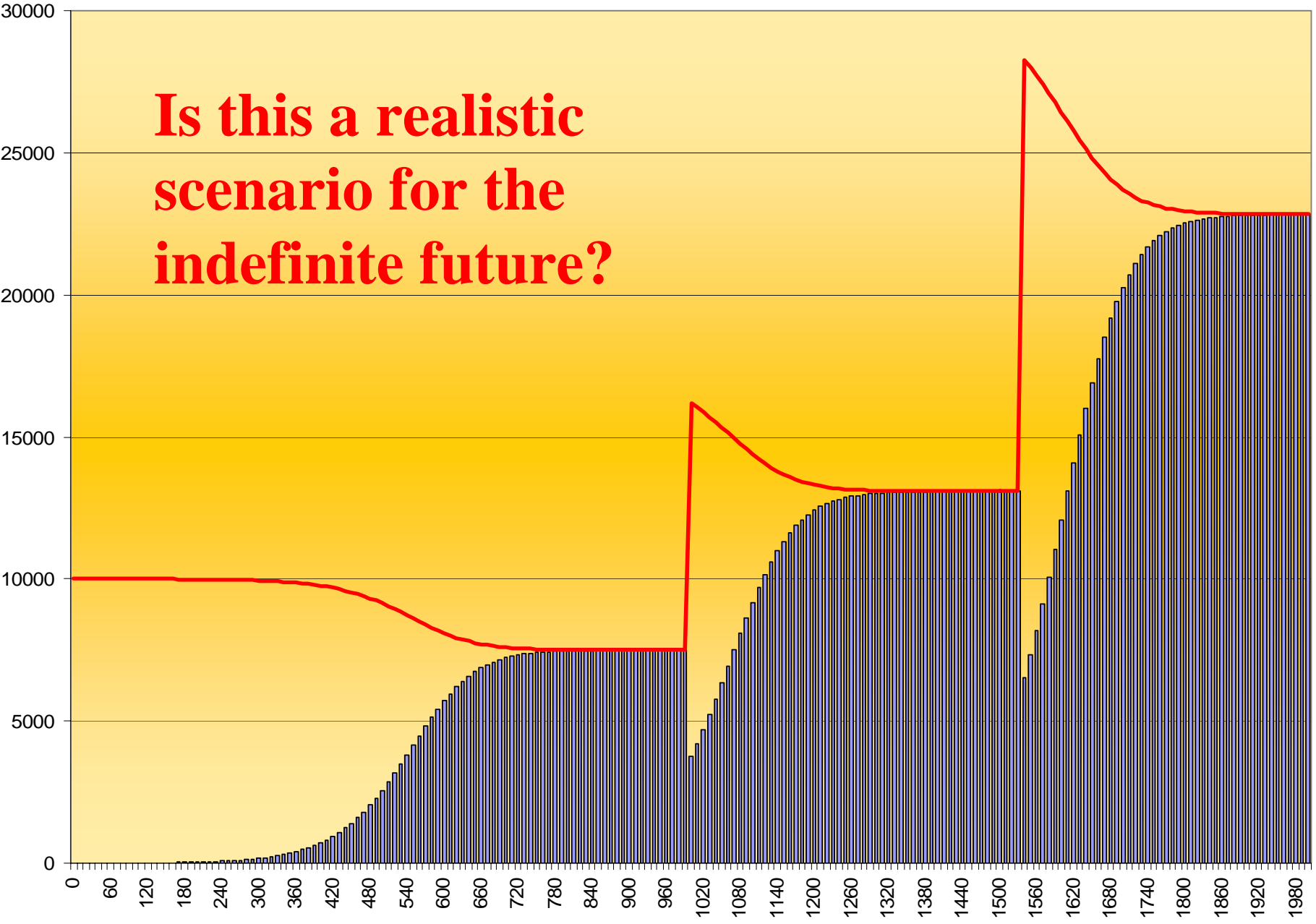
# “Smart Growth” is Self-Limiting Growth

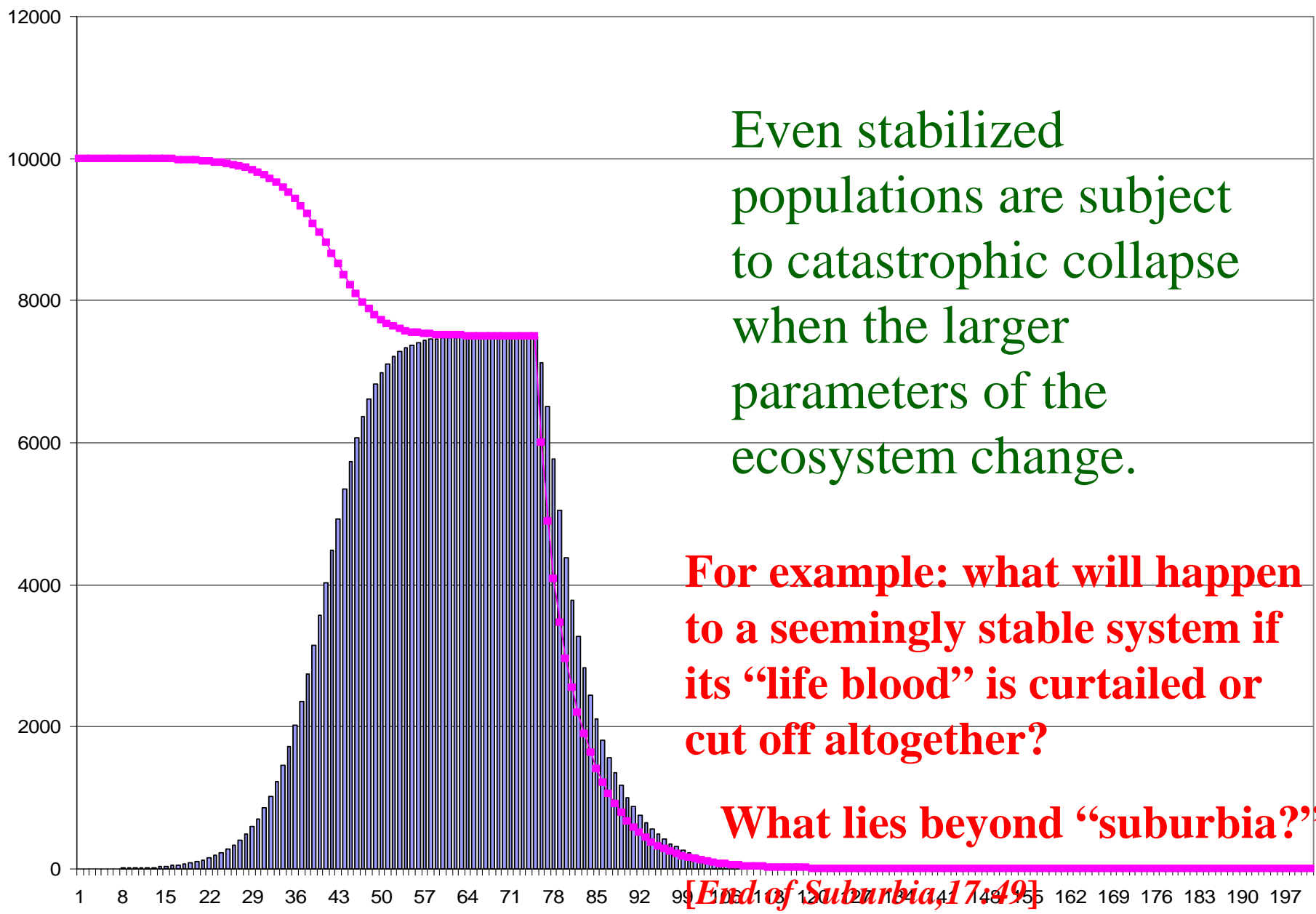


# What lies ahead in these circumstances?



**Is this a realistic  
scenario for the  
indefinite future?**





Even stabilized populations are subject to catastrophic collapse when the larger parameters of the ecosystem change.

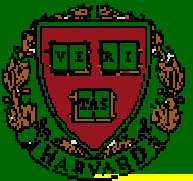
**For example: what will happen to a seemingly stable system if its “life blood” is curtailed or cut off altogether?**

**What lies beyond “suburbia?”**

**[End of Suburbia, 17:49]**

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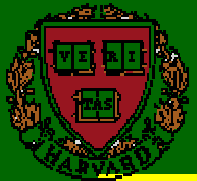
Our evolving relationship to the land underscores our colonial and imperial worldview.





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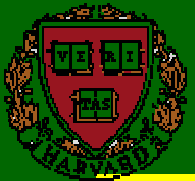
Our evolving relationship to the land underscores our colonial and imperial worldview.



Indeed, all of our sprawl culture with its economy based on Wal-Marts, and global resource extraction depends on carbon fuels.

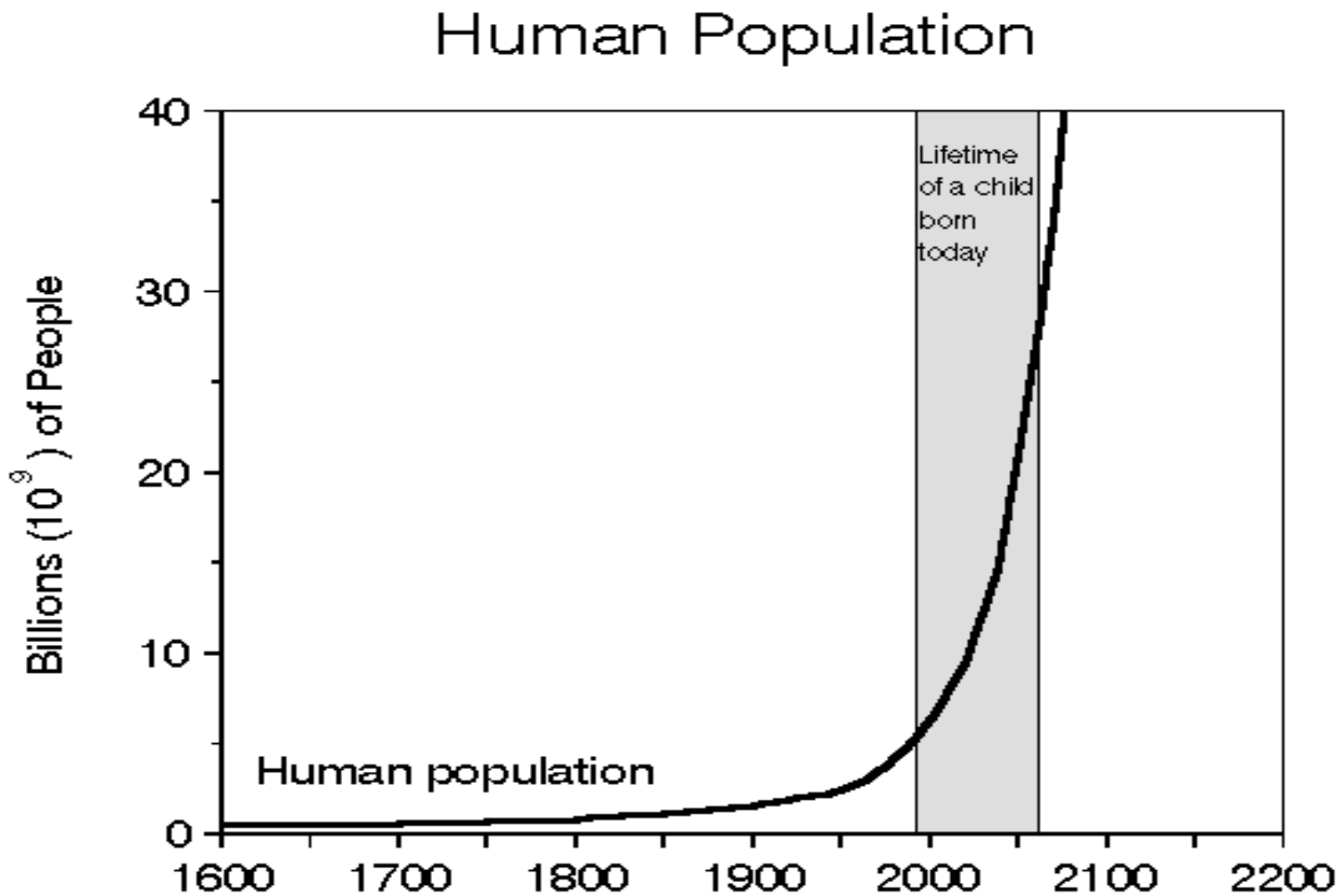


Consider the history of the rise of the importance of oil in Western economies....



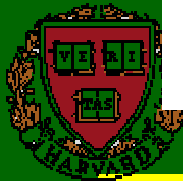
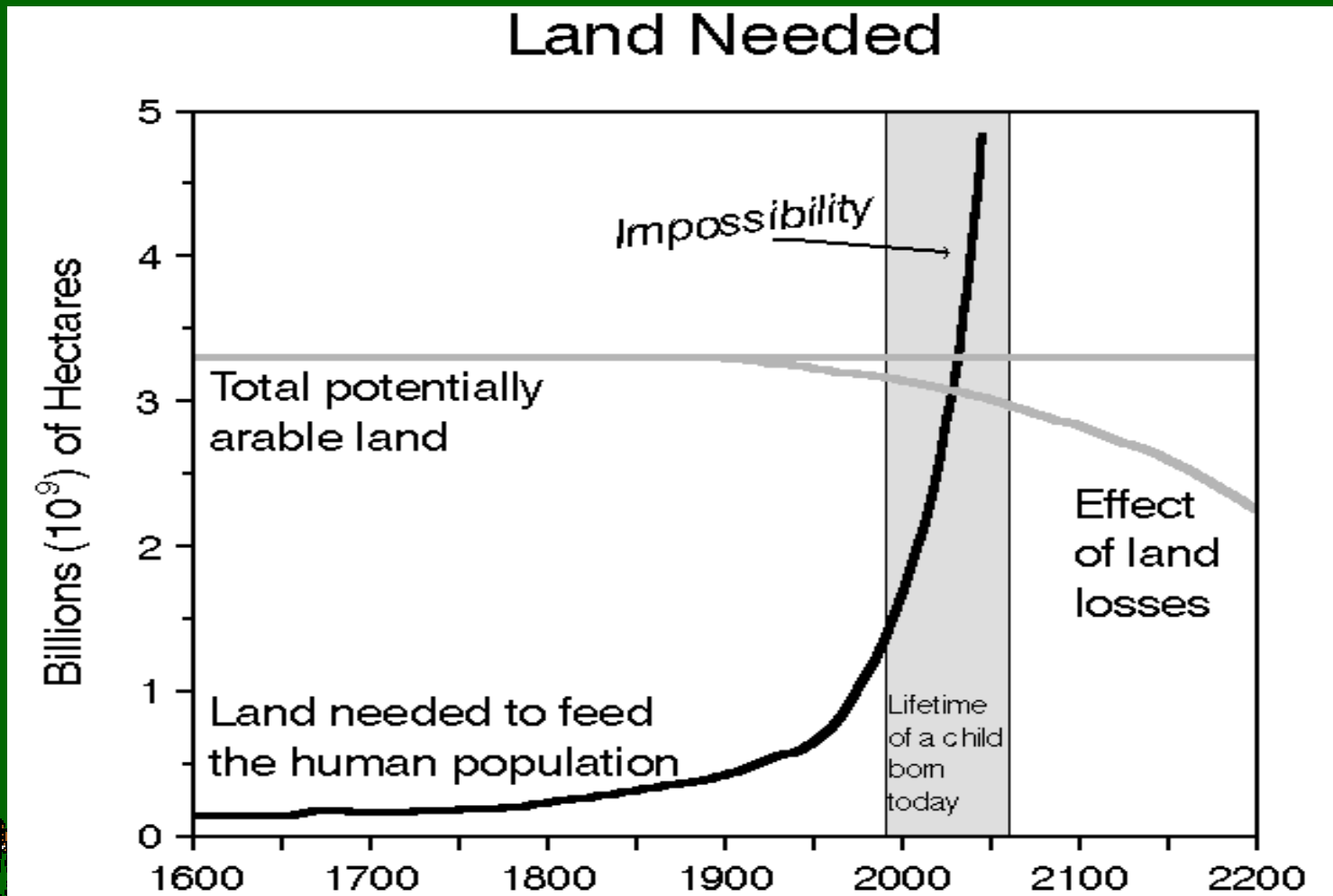
# But How Much is Enough in an Ecosystem ..?

(the nature and pace of changes immediately ahead -1)



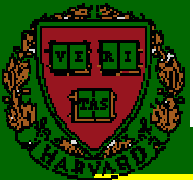
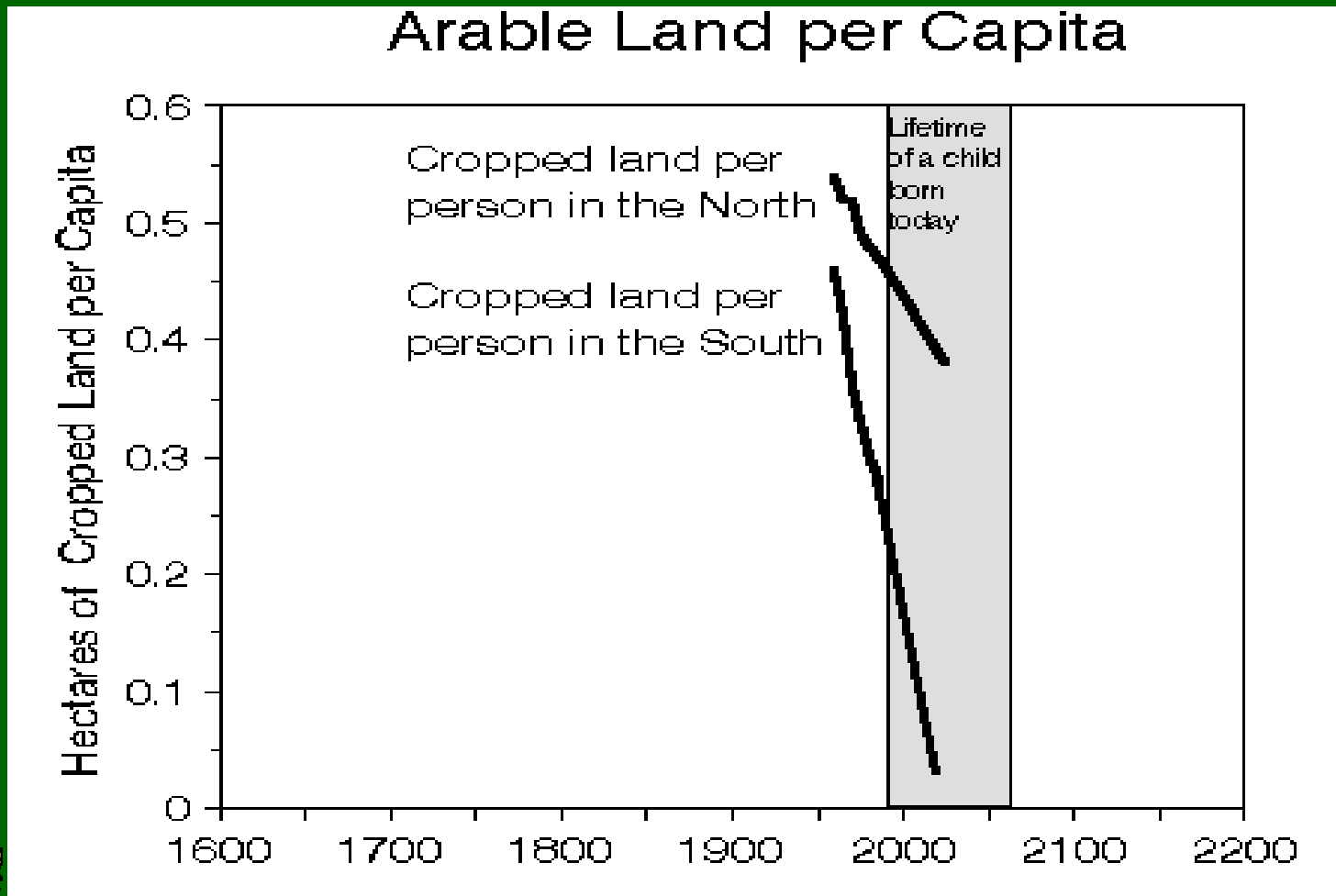
# But How Much is Enough in an Ecosystem ....?

(the nature and pace of changes immediately ahead -2)



# But How Much is Enough in an Ecosystem....?

(the nature and pace of changes immediately ahead -3)

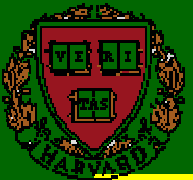


The intensification of agriculture has been made possible primarily through fossil fuel subsidies.



Consider how our food is grown...and how we have re-structured the whole the earth's agriculture...[*End of Suburbia*, Tim Weiskel - 22

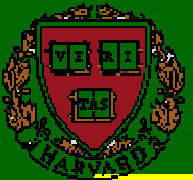
40:55]



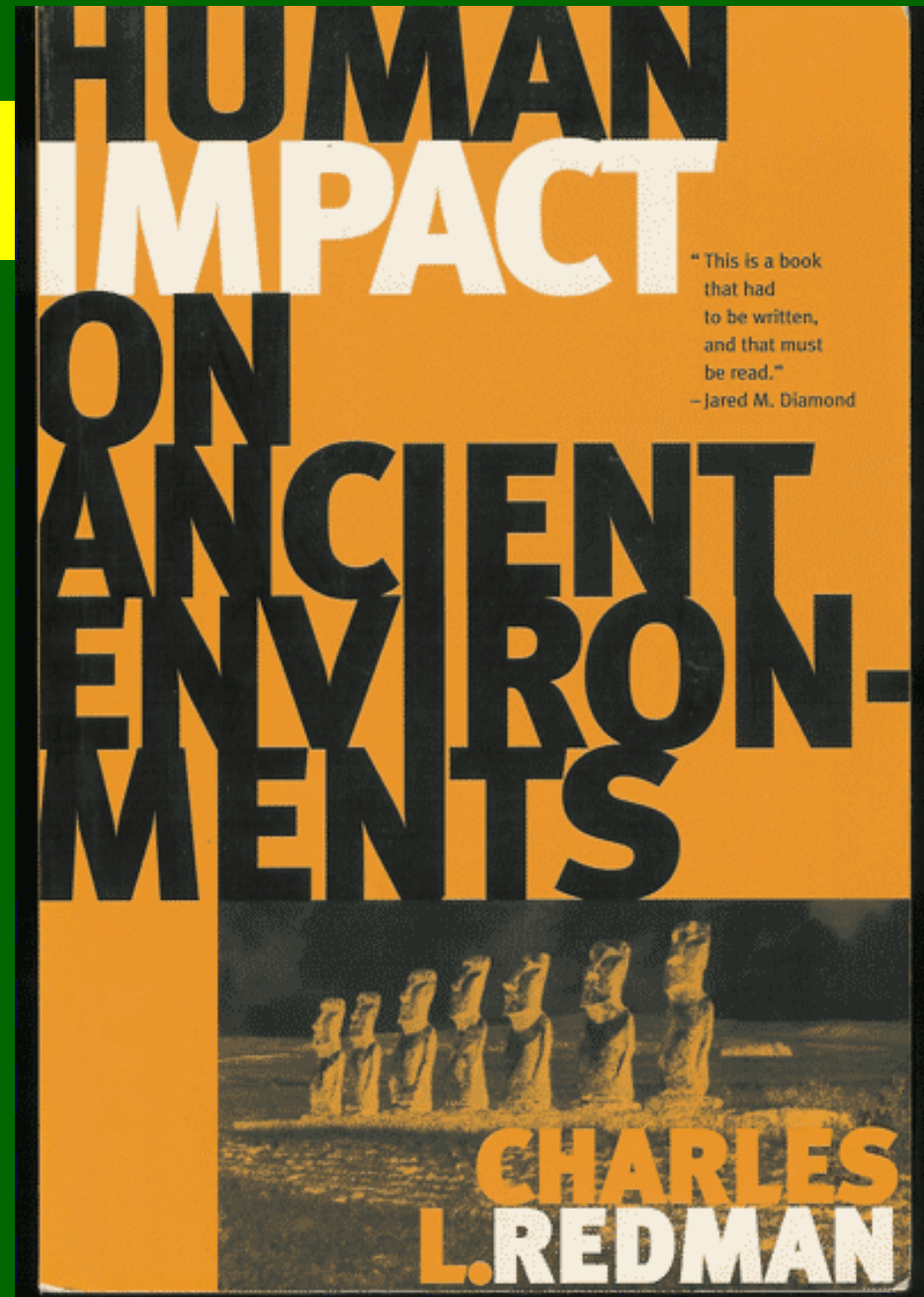
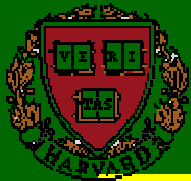
## Period of Colonial Expansion and Imperial Control based upon petro-intensivity is ending...

Our cultural habit of continuous and perpetual growth, linked to the phenomena of colonial expansion and imperial control are about to come to an end for 3 reasons:

1. It is **economically unsustainable** – era of *cheap oil* is nearly over – nearly at the “peak” point, if not already past it. (*End of Suburbia*, 26:31).
2. It is increasingly seen to be **politically and socially intolerable** – local populations object to continued colonial domination and they are asserting themselves in costly ways. (See sources on web page – *Supplements for Week 5*).
3. AND the habit of carbon-intensive growth is **ecologically suicidal** because of the ecological instabilities CO<sub>2</sub> will engender in the entire system.



The “drum beat of human social history has been one of “overshoot and collapse,” through a succession of ancient civilizations, through to the modern experiences of colonialism and imperialism.





# Ecology & Empire

Environmental History of Settler Societies



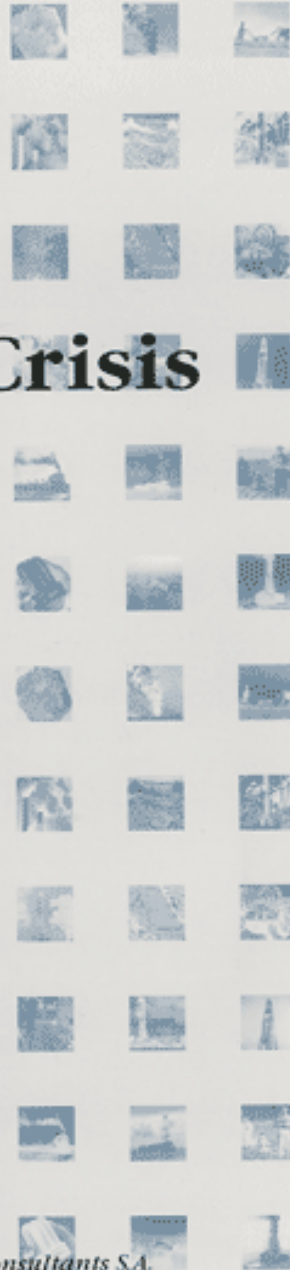
Edited by  
Tom Griffiths and Libby Robin

Empire itself worked more often than not to degrade the ecosystems of the peripheral regions of the world that were brought into global communication and exchange networks.

The  
**Coming Oil Crisis**

*by*  
**C.J. Campbell**

*Multi-Science Publishing Company & Petroconsultants S.A.*



The colonialist outlook on mining is abundantly manifest in our culture's approach to oil.

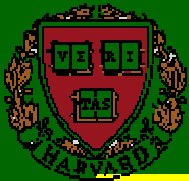
We know there is a finite supply whose limits are becoming clear, yet we have built the entire post-World War II American culture on the presumption of unlimited supply.

Geologists have been warning us for years.

Tim Weiskel - 26

Some have even drawn our attention in detail to why the problem of absolute supply is not the real issue.

After the Club of Rome, *Limits to Growth* report of 1972, scientists warned of the need to plan for a post-petroleum world in 1986.



**The Threat to Food  
and Fuel in the  
Coming Decades**

# Beyond Oil

**John Gever  
Robert Kaufmann  
David Skole  
Charles Vörösmarty**

A Project of  
CARRYING CAPACITY, INC.

## Initial Blackout Timeline

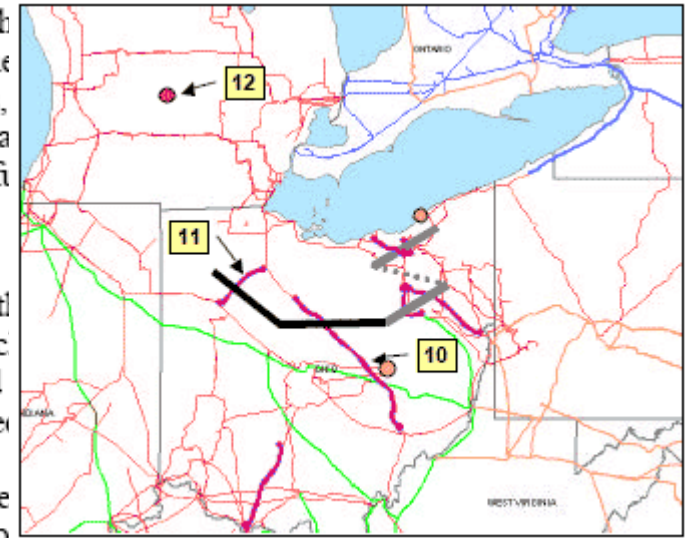
### August 14, 2003 Outage Sequence of Events

This report provides the sequence of some of the significant events that led to the blackout of the electric systems in the Mid-west and Northeast United States and eastern Canada on August 14, 2003. This explanation is intended to provide a general understanding of how the blackout evolved; it does not include every detail that is relevant and necessary to fully understand the event. Such details are within the thousands of records of data that need further investigation. This report includes circuit breaker operations, power plant startups and shutdowns, shifts, and load shedding. A joint team from the United States and Canada is conducting an investigation of the blackout and will provide appropriate details in a final report.

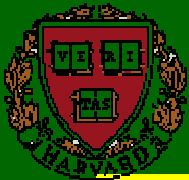
#### **Event Times**

The times listed in this summary were derived from the “time stamp” that is recorded whenever a circuit breaker opens to disconnect a transmission line or a generating unit is brought on line or off, or voltage exceeds a specified limit. The time stamp is recorded to the nearest second (and sometimes to the fraction of a second).

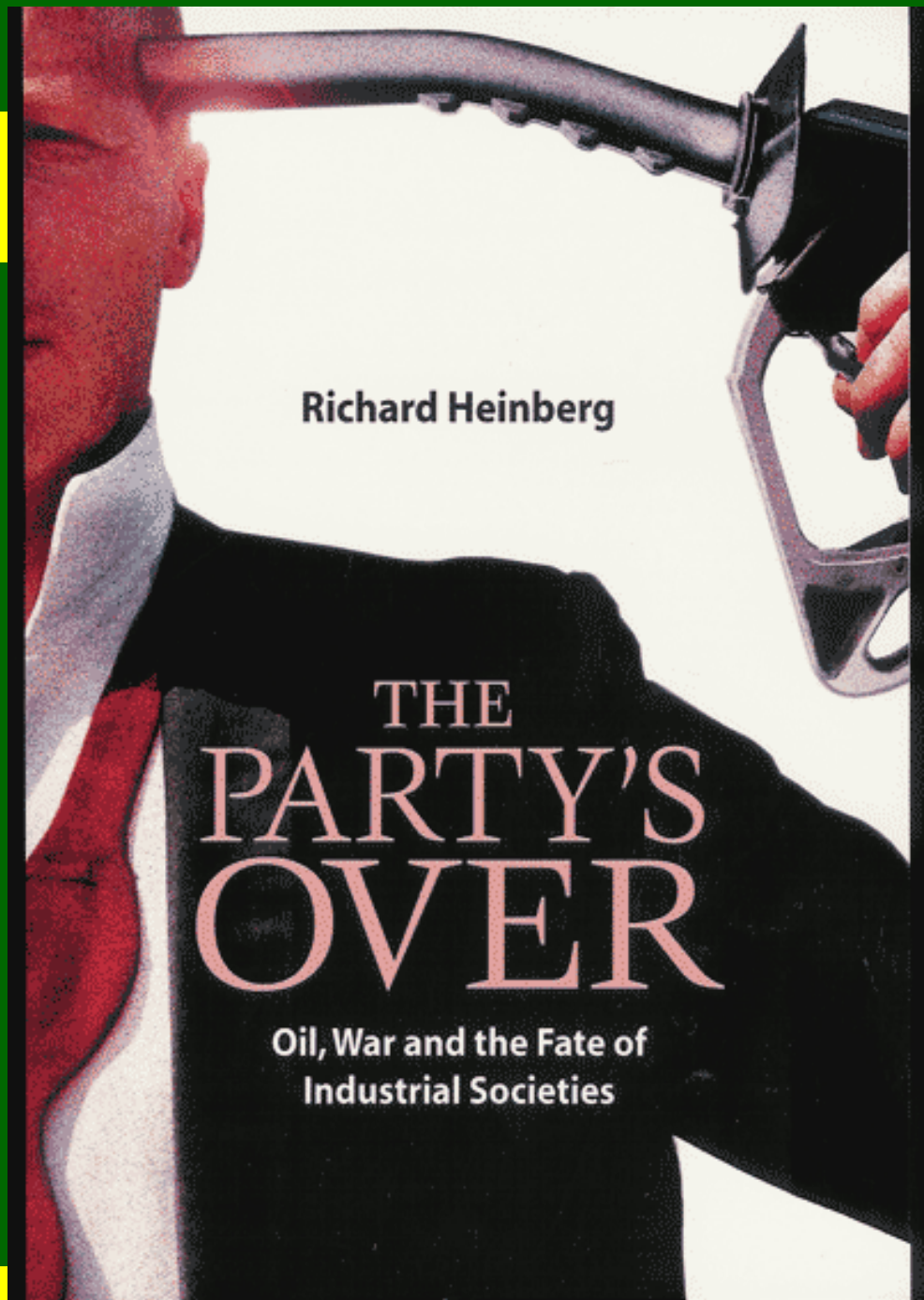
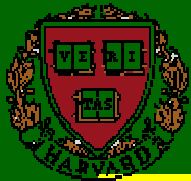
In some cases, the investigators discovered that these time stamps were not accurate because the computers that recorded the information became backlogged, or the clocks were derived had not been calibrated to the national time standard. Investigators must determine which events are accurately time-stamped, and build from those events to cross-check other system events from



You might think a “Blackout” affecting 57 million people would serve as a “wake-up call.” Tim Weiskel - 28



Some have pointed out that, in fact, the party is over for all industrial powers that have come to depend increasingly on a dwindling resource.



"Brilliantly researched, ably argued . . . *Resource Wars* shows that a new geography of conflict is already being mapped out. Klare's analysis is indisputable."

—David Rieff, *Los Angeles Times Book Review*

# RESOURCE WARS

THE NEW LANDSCAPE  
OF GLOBAL CONFLICT

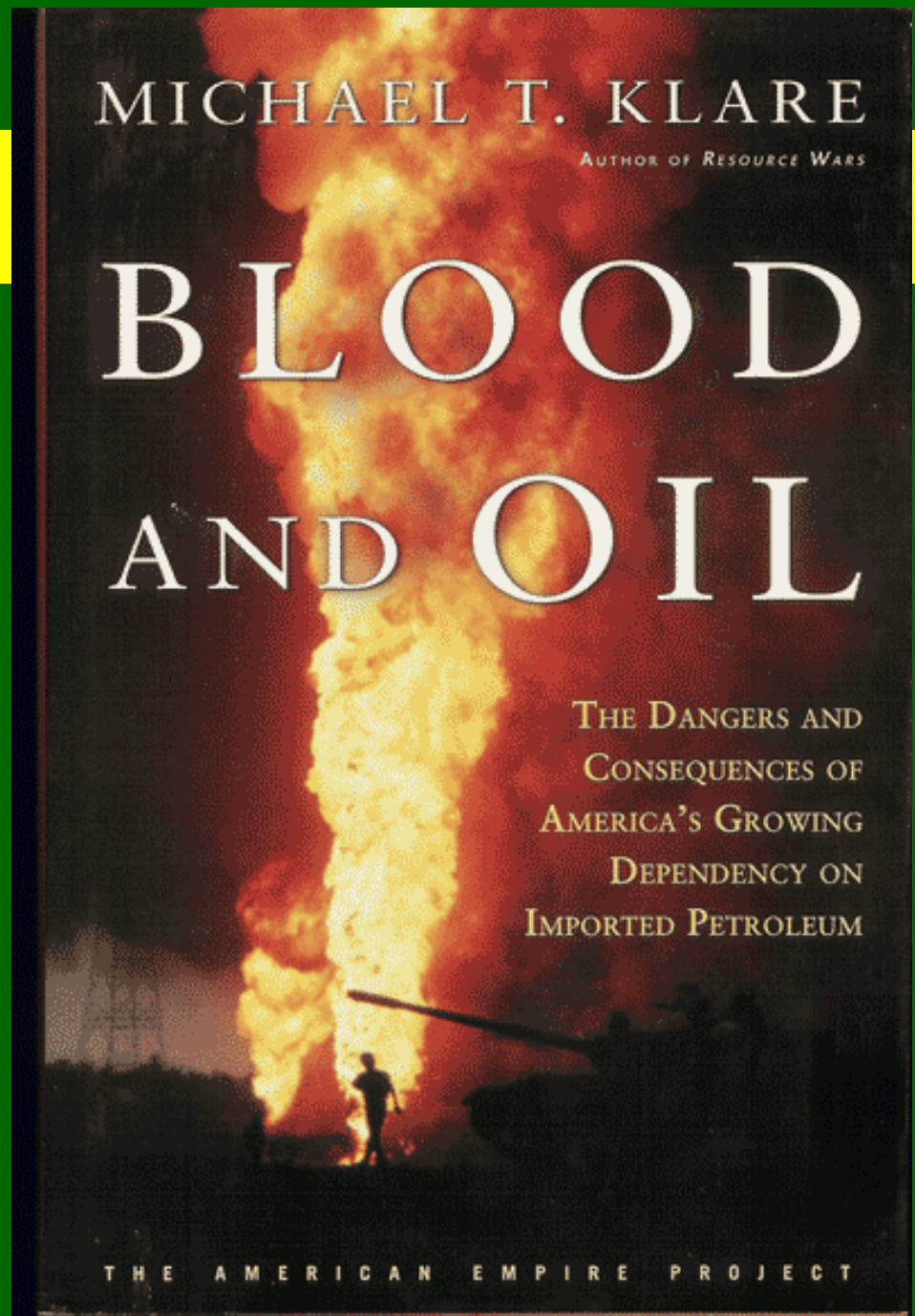
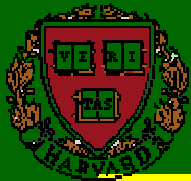
WITH A NEW INTRODUCTION BY THE AUTHOR

Michael T. Klare

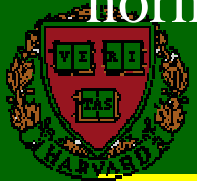
AUTHOR OF *ROGUE STATES AND NUCLEAR OUTLAWS*

Michael Klare, among others, has described this dependence as the basis for “the new landscape of global conflict.”

...and most recently  
has highlighted the  
consequences of  
America's growing  
dependency on  
foreign petroleum.



James Howard Kunstler argues that there are in fact a series of converging catastrophes that will cause imminent “discontinuities” in the near future because of our inability to understand the phenomenon of “Peak Oil” and what it means for the culture of consumption we have come to regard as normal.

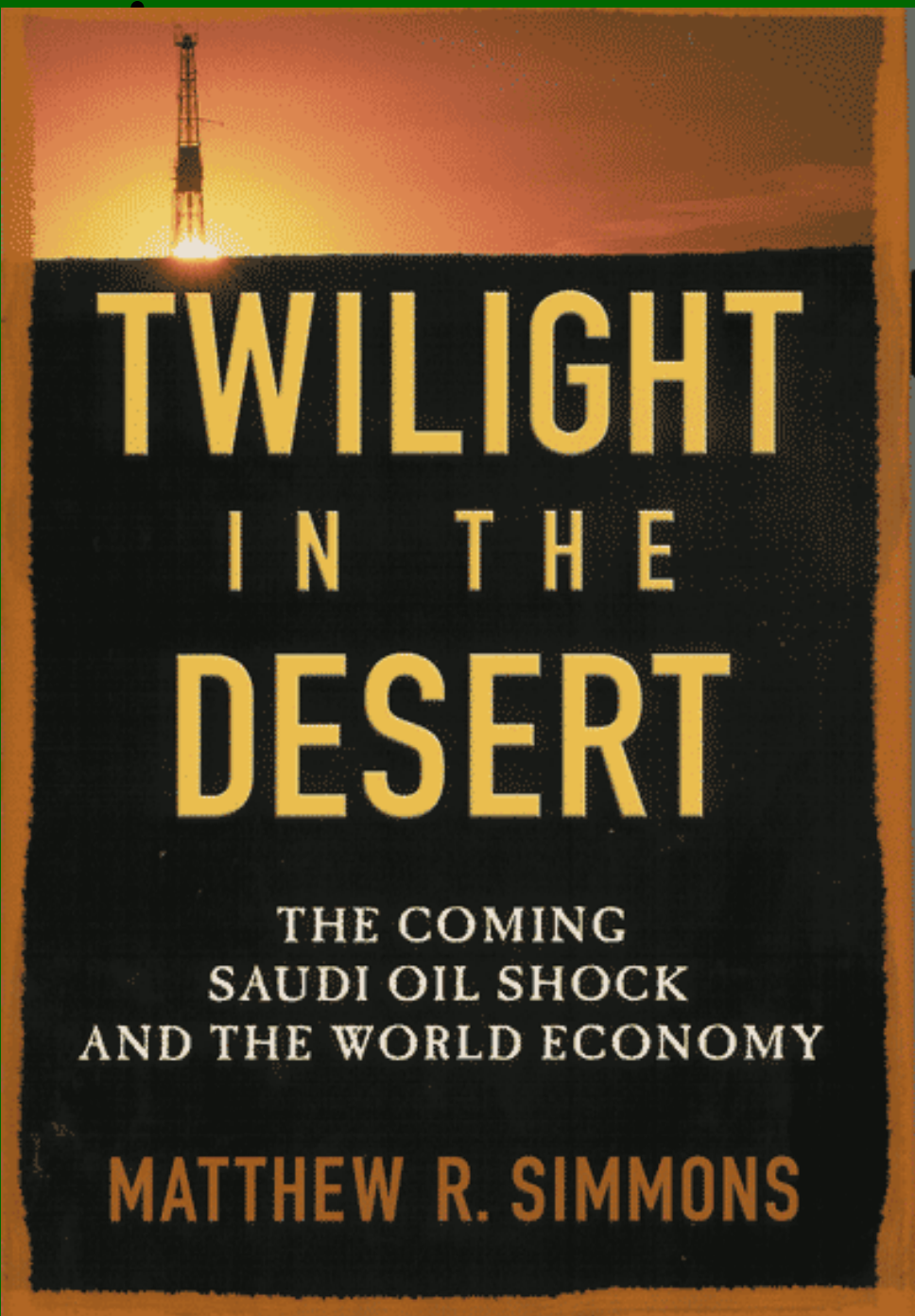


# The LONG EMERGENCY

SURVIVING the CONVERGING CATASTROPHES  
of the TWENTY-FIRST CENTURY

JAMES HOWARD KUNSTLER  
AUTHOR OF *THE GEOGRAPHY OF NOWHERE*





# TWILIGHT IN THE DESERT

THE COMING  
SAUDI OIL SHOCK  
AND THE WORLD ECONOMY

**MATTHEW R. SIMMONS**

Matthew Simmons has drawn particular attention to the “oil peak” phenomenon in reference to the oil reserves in Saudi Arabia.

He has been a key voice in America, drawing attention to the 50 year-old predictions of M. King Hubbert.

Tim Weiskel - 33

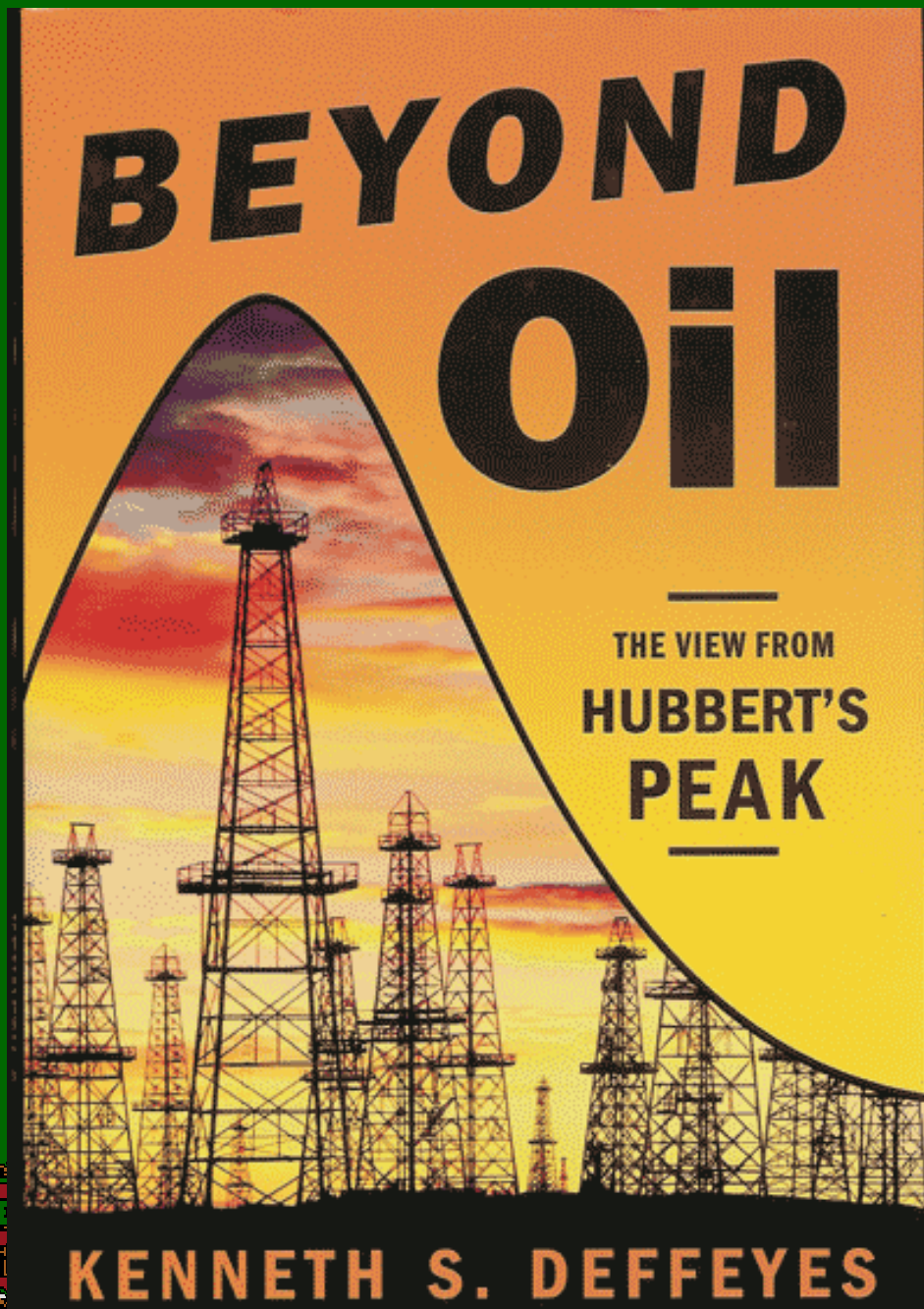
# Hubbert's Peak

The Impending World Oil Shortage



KENNETH S. DEFFEYES

Ken Deffeyes has underscored the importance of “Hubbert’s Peak.”



In the fact, he feels we will reach it in the next few weeks... just before – or perhaps just after – Thanksgiving, 2005.

TIMOTHY C. WEISKEL

## Rubbish and Racism: Problems of Boundary in an Ecosystem

We had fed the heart on fantasies;  
The heart's grown brutal from the fare.

W. B. Yeats, *Meditations in Time of Civil War*

**I**n an age of mounting racial tensions and in the presence of an impending environmental crisis, it may seem irresponsible for anthropologists to fly off to remote corners of the world and continue their studies of people who, even if they do survive, will have no effect upon the world's major problems. As research money becomes scarce, government agencies and foundations appear to agree that such field work is a luxury they can ill afford. Anthropologists, of course, have always maintained that their research has been intimately bound up with the total human condition, and if their peoples have been remote and their theories esoteric, this has been so only in order to offer a fresh approach to the problems we all face daily. If anthropologists have been right, then they should have something to offer concerning two of the major crises which

Other. Rubbish, in this light, is most adequately understood not as an incidental technical problem for the Western world, but rather as a built-in feature of the society itself; and its abolition might pose considerable conceptual problems. It may well be that rubbish has to be eliminated, but in order to do so, America will have to undertake an entire restructuring of its historically derived categories of meaning.

The difficulty is, quite simply, that there are no “externalities” in a global ecosystem. This is a fact that both swidden agriculturalists and Western industrial societies may prefer to ignore, but they can only do so at their own peril, for we are rapidly approaching circumstances globally where there are no new lands to “slash and burn” and no more room to retreat from the waste of our own making.

Nowhere is this more apparent than in our continuous generation of toxic chemical and nuclear waste. The strategies devised for coping with this noxious material are not unlike those of swidden agriculturalists who cast their rubbish on heaps at the village edge.



must simply be abandoned to revert to “nature.” Nature itself is thus clearly envisaged as outside the realm of human activity, acting as a receptacle for human waste. In the case of nuclear material where very long times are required before wastes lose their lethal character, there have even been serious suggestions that the problem should be solved by jettisoning the radioactive material into space—the earth’s ultimate rubbish bin!

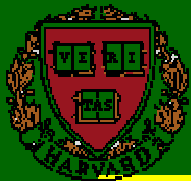
It is a sad irony that despite the most advanced technical achievements in analyzing the global situation, American culture seems nonetheless incapable of recognizing the inherently cyclical nature of an ecosystem. In this sense America has become the victim of conceptual fictions that seemed plausible during its own history of predatory expansion but now leave it tragically out of touch with the problem of rubbish in a global ecosystem.

American history would seem to indicate that the development of racism is similarly a counterpart of the process of predatory expansion. Turner unwittingly suggested as much when he observed that “the frontier is the outer edge of the wave—the meeting point between savagery and civilization.” In a work entitled *Savagism and Civilization: A Study of the Indian and the American Mind*, Roy Harvey Pearce has traced the historical image of the Indian, and he indicates that the image of the Indian as a savage emerges from a



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Perhaps even more important, the history of this expansion has led Western cultures and the westernized elites in Third World countries to believe in the illusion of unlimited growth. The industrial revolution and discovery of fossil energy sources further sustained the belief in infinite growth. Having expanded upon the things of nature, modern mankind has come to believe that expansion is in the nature of things. This is not so, of course, but we are only now just beginning to discover that this cherished belief is a potentially fatal illusion.



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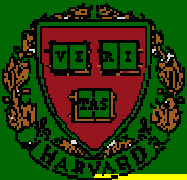




# Private Lands -- Public Problems

One of the most extensive uses of privately held land in America and throughout the wider world is that involving agriculture.

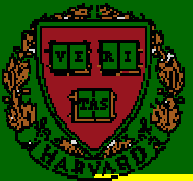
An examination of the use of these lands reveals that private land management decisions often lead to the generation or exacerbation of public problems.



# Private Lands -- Public Problems

How have agricultural lands been managed in the past?  
What are the factors that lead farmers to manage their lands poorly?

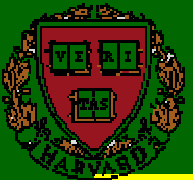
What affect has the changing structure of American agriculture had upon land management in agriculture?



# Private Lands -- Public Problems

Beyond the United States, a number of very important environmental management questions are directly related to the structure of American agriculture.

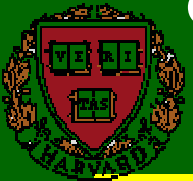
How land is managed (or mismanaged) in the United States affects the agricultural commodities that are produced domestically and therefore structures the demand for these and other commodities on the international markets.



# Private Lands -- Public Problems

The international demand for commodities in turn sends "signals" both to international investors and to individual peasant producers in global cash-crop production that has come to characterize the Third World.

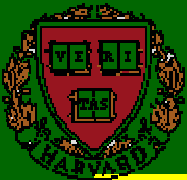
The international cash-crop/food-stuff trade has emerged as a global pattern of ecosystem organization as a legacy of the colonial domination of some peoples of the world by others.



# Private Lands -- Public Problems

Colonialism *as a political system* has collapsed, but, for the most part, this fact has not halted the emerging trends in agricultural land use established under colonial rule.

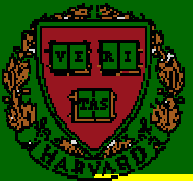
Since formal systems of colonialism have collapsed, the logic of agricultural production has come to be dominated by large multinational food and commodity corporations.



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What *is* the global “trajectory” of agricultural systems? What *should* it be?

Managers of these firms and their investors -- with the assistance of public policy makers who largely share their outlook -- have been driving the evolution of the global agricultural system in directions that both agronomists and ecologists warn are increasing unsustainable and vulnerable to perturbation and collapse.





AFRICAE PARVS

LYBIA INTERIOR

MANDINGA

BINGANI

LUDATAS



MELLI

CRAGOLES

SOUCAS

Sierra Lione

HALGFFETA

ASSAS

BENIN REGNÜ

GUINEA



ATHI

OPICUS OCE

LINEA

AQUINOCTIALIS

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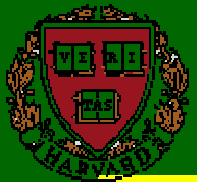






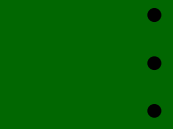


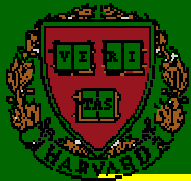
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# Environmental Ethics and Land Management

ENVR E-120

<http://courses.dce.harvard.edu/~envre120>

## Private Lands: Agriculture



Timothy C. Weiskel

*Co-Director, The Climate Talks Project*

Session 7  
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