

Environmental Ethics and Land Management

ENVR E-120

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

Public Lands: Mining, Timber & Grazing Lands

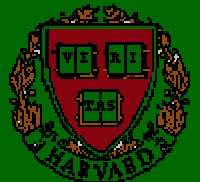


Timothy C. Weiskel

Co-Director, The Climate Talks Project

Session 6
26 October 2006

Harvard University Extension School
Fall Semester 2006

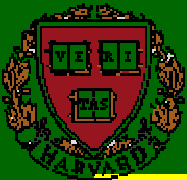


Papers... 1

Please Note - Your papers should contain different levels of analysis, elaborating:

A Problem - the topic you are investigating should present some kind of problem, dispute or dilemma.

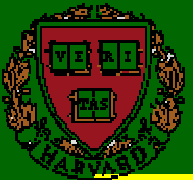
The Parties - there are different parties to the disputes or contested issues.



Papers....2

The Principles - each of these parties bases its position on *explicit or implicit ethical priorities* -- principles which, in turn, manifest the 6 fundamental theories emphasized in class (a theory of community, system, authority, change, agency, and time).

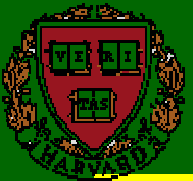
Your paper ought, then, to assess the “*adequacy*” of the *contending ethical principles*.



Papers....3

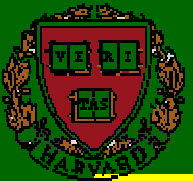
Finally your paper should conclude with a description of

The Policy Recommendations you would offer for the problem at hand along with a discussion of the *ethical principles* that you feel make this option the most compelling you can think of.

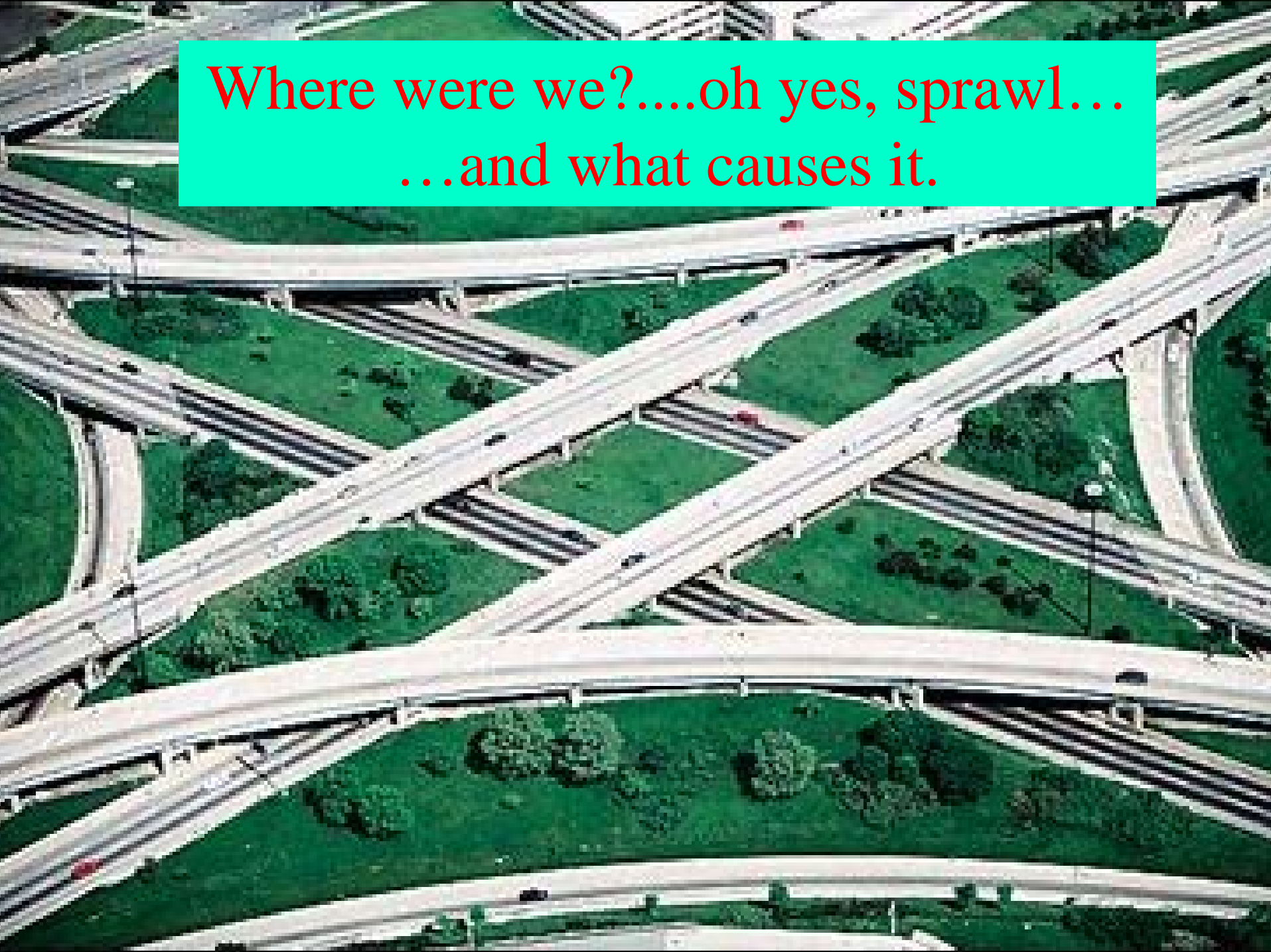


Papers....4

The deadline for submitting the **Prospectus** is **Thursday, 2 November** in class AND to the “DropBox” (– Access through the: [Course Utility Page](#) link in top left corner of Course webpage). Suggestions on the preparation of the research paper and corresponding class presentation are outlined in the web document: [Guidelines for ENVR-E-120 Prospectus, Term Paper and Class Presentation.](#)



Where were we?...oh yes, sprawl...
...and what causes it.

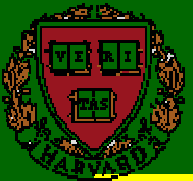




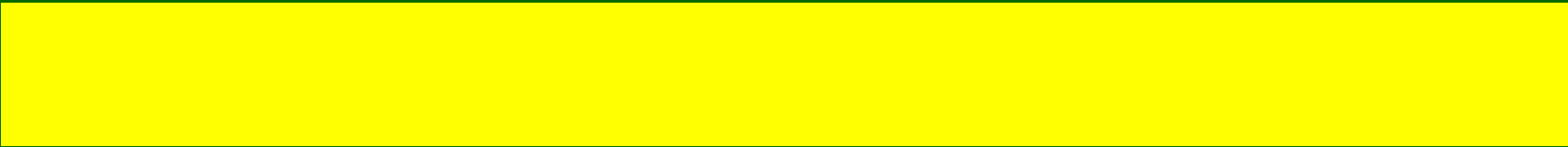




To future archaeologists, these sweeping monuments, built for the exercise of our cars, may hold the key to understanding the essence of our culture's values. They will certainly be our civilization's most ambitious, expensive, impressive and enduring design and engineering achievements.



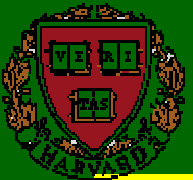
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And where do they lead?
In part, round and round,
but also....
from the “core” to the “periphery.”

And what is on the periphery?

This.....

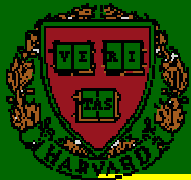


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Ford Explorer



Is this space in America?



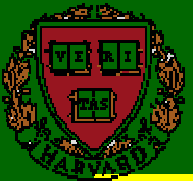
How can you tell?

How would people in American culture view this space?

Is it a wetland? A river mouth?

Who or what were its previous inhabitants? *

Do they have “rights”?





Dodge Durango



Jeep Grand Cherokee





GMC Envoy



Toyota 4Runner



Nissan Pathfinder



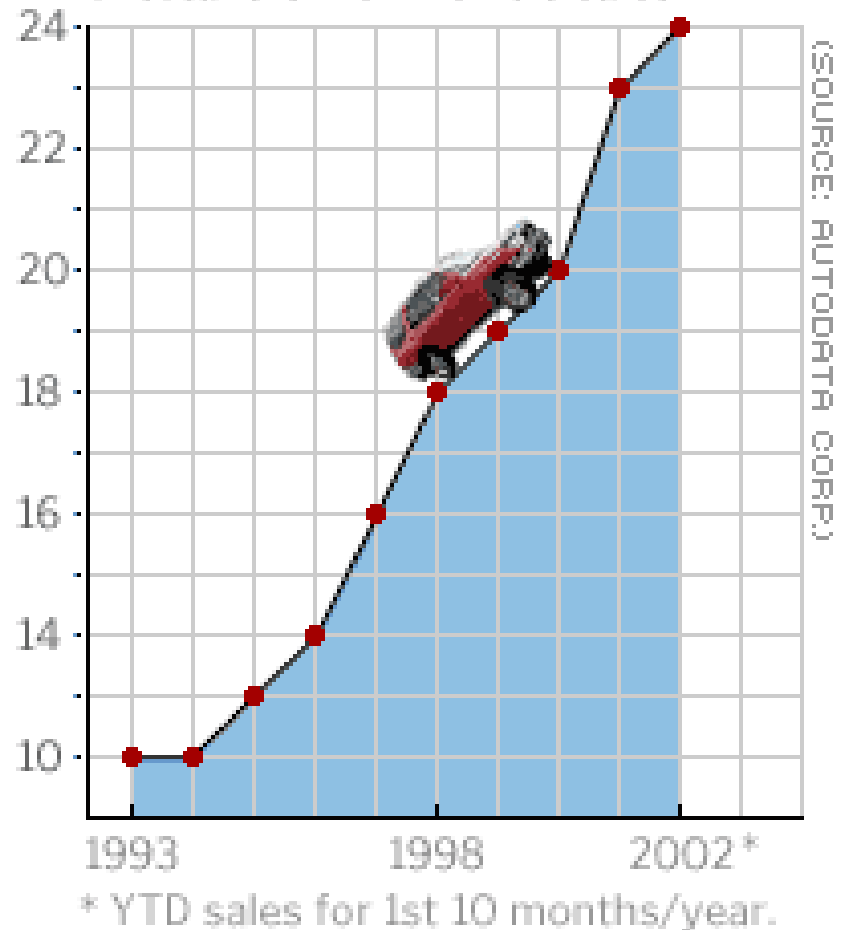
The 1990s saw an enormous boom in SUV sales and a boom in suburban sprawl – all made possible through a continuously expanding economy [“It’s the economy, stupid”].

What has been the predictable result on the land?



SUV Sales

Sport/utility vehicle sales as a % of total U.S. new vehicle sales



Cascading Environmental Implications...

Increased use of cars

needed to do anything

can't buy a loaf of bread without a \$10,000

investment in auto-mobility

==> Increase in CO₂ emissions + ground level ozone

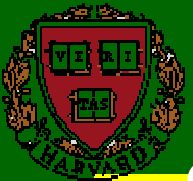
+ NO_x + particulates

==> Smog

==> Health hazards

→ Move to country...(need to use a

car)...

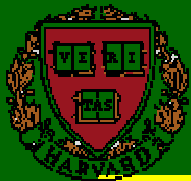


Cascading Environmental Implications...

==> Increased use of energy in cars + energy in “conditioning” the air in cars and home and offices.

==> Car usage leads to demand for more roads.

==> More roads ==> More traffic + change in surface and groundwater hydrology -- i.e.. water pollution and localized “flooding/drought” cycle.



Transformations of Colonialism...

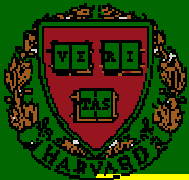
There is a movement in the internal logic of colonial economic development through **3 stages**. Each successive stage is made possible by capital accumulated during the previous stage.

These stages can be summarized successively as:

Mercantilist

==> Industrial

==> Financial

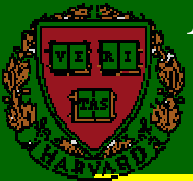


Transformations of Colonialism

The movement from mercantile to industrial to financial forms of capitalism draws attention to a shift in the relative power of different groups and the location of decision-making.

The successive control over time of different groups of people *does not mean* that “earlier” forms are completely displaced.

Instead, they become subordinated to the dominant logic of the newer form of capital accumulation.

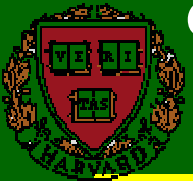


Transformations of Colonialism

This was true as well in the transition from peasant agriculture to mercantile capitalism.

Agricultural production was not displaced or eclipsed, it was simply subordinated to the strictures of a system whose *internal dynamic of accumulation* was directed from elsewhere in the over all system.

So peasant agriculture becomes capitalist agriculture, integrated and directed in its essentials successively by mercantile, industrial and ultimately financial decisions.



Elements of Early Colonial Worldview

Implicit theories

Community

The moral community is made up of those who share in the effort to discover, conquer, exploit and dominate ‘wild’ or untamed nature.

System

The system consists of various moral communities which are also engaged in this competition or which are destined to be subdued by it. All of this is played out in a vastly expanded natural world of plentiful resources that are there simply for the appropriation.

Authority

Authority is vested in competing sovereignties which settle disputes by treaty, alliance or warfare. Nothing like the authority of power.

Change

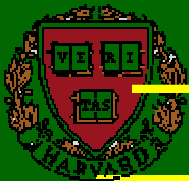
Change occurs through the invention of new sailing techniques, manufacturing technology and willful innovation. Change is good -- and necessary – for competitive survival of rival trading powers. Growth for the sake of growth is good – stored as “money” .

Agency

The “Lord helps those who help themselves.” Explorers, discoverers and innovators are valued as agents of change.

Time

The focus is neither upon the past nor the remote future, but upon the present and the immediate future in which plans for growth, innovation and measurable expansion can be realized. The “New World” is a “New Heaven and a New Earth” -- Messianic, utopian communities abound.



Industrial Capital Worldview

Implicit theories

Community

The moral community is made up of those who work to develop industrial processes with new labor-saving devices. Entrepreneurs

System

The system consists of various other industrial entrepreneurs engaged in competition. Natural world is a resource base for industrial processes. Plants, animals and minerals are “raw materials.”

Authority

Authority is vested in nation-states under elected governments or constitutional monarchies whose role is to facilitate industrial development

Change

Change occurs through the invention of manufacturing technology through invention and the application of science for willful innovation. Change is good -- and necessary – for competitive survival of rival industrial powers. Growth for the sake of growth is a goal .

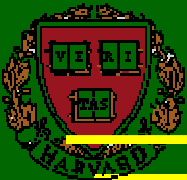
Agency

The state and the entrepreneurial classes need to act together. The state should act to facilitate and “free up” the potential for industrial growth.

Time

The focus is upon the immediate future in which plans for growth, innovation and measurable expansion can be realized. The preindustrial past becomes “outdated.” The system moves toward the “new” and innovative. The “modern” is “good” the “old-fashioned” is simply discarded, bypassed or ignored

Colonial (Industrial) Worldview



Finance Capital Worldview

Implicit theories

Colonial (Financial) Worldview

Community

The moral community is made up of those who share in capital to undertake investments in industrial capacity and trading ventures

System

The system consists of investors engaged in differential strategies of investment throughout the world. The world as a whole is available as a theater for profitable investment. Financial resources knit the system as a whole together.

Authority

Authority is vested in trans-national and multinational alliances and agreements that work to facilitate the unimpeded movement of capital

Change

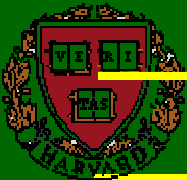
Change occurs through the identification and investment in new ideas.. Change is good and has become essential for competitive survival of rival financial groups. Growth is both good and necessary.

Agency

The investor is the agent of change in the system. The state should act to facilitate and “free up” the potential for the global movement of financial resources.

Time

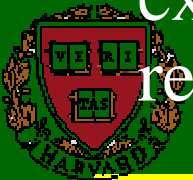
The focus is upon the next “quarter” or a shortened time horizon determined by a calculation of the annual average rate of profit. Rapid “turnover” of capital is necessary for maximum profit generation. “Time is money.”



Over all Colonial Worldview - Summary

Social systems dominated by a mercantile, industrial and, finally, a financial capital view the world in similar ways. In each stage of capitalist consciousness there is:

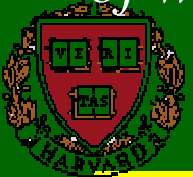
- a common assumption that *growth is good & growth is normal*;
- *a hastening of the theory of time* -- that is, a “shortening” of the effective time frame within things are expected to happen (time is money, we cannot “waste” it, etc. Time is that phenomena which by being expended generates growth automatically through returns to capital – ie. “interest”).



Over all Colonial Worldview - Summary

Further, there is in this evolution of worldviews:

- *a removal of the locus of power over decision making* from the physical bases of ecosystemic dependence. Economy and moneyed wealth thought to be *autonomous*. Money generates interest automatically – “spontaneously,” all on its own.
- *a collapse of consciousness from system → to sector → to “virtual” reality*. Movement to specialized concerns, generalized indifference and post-literate consciousness.
- All of these things → lead to the *growing illusion of increasing command and control over economy and (therefore) the ecosystem*. (“*We have expanded upon ...and...*” We are often “*most ignorant of what we are most assured*”).

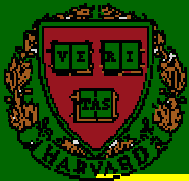


Equation for Understanding the Dynamic of Exponential Growth

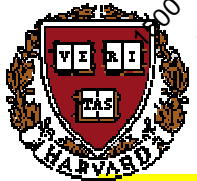
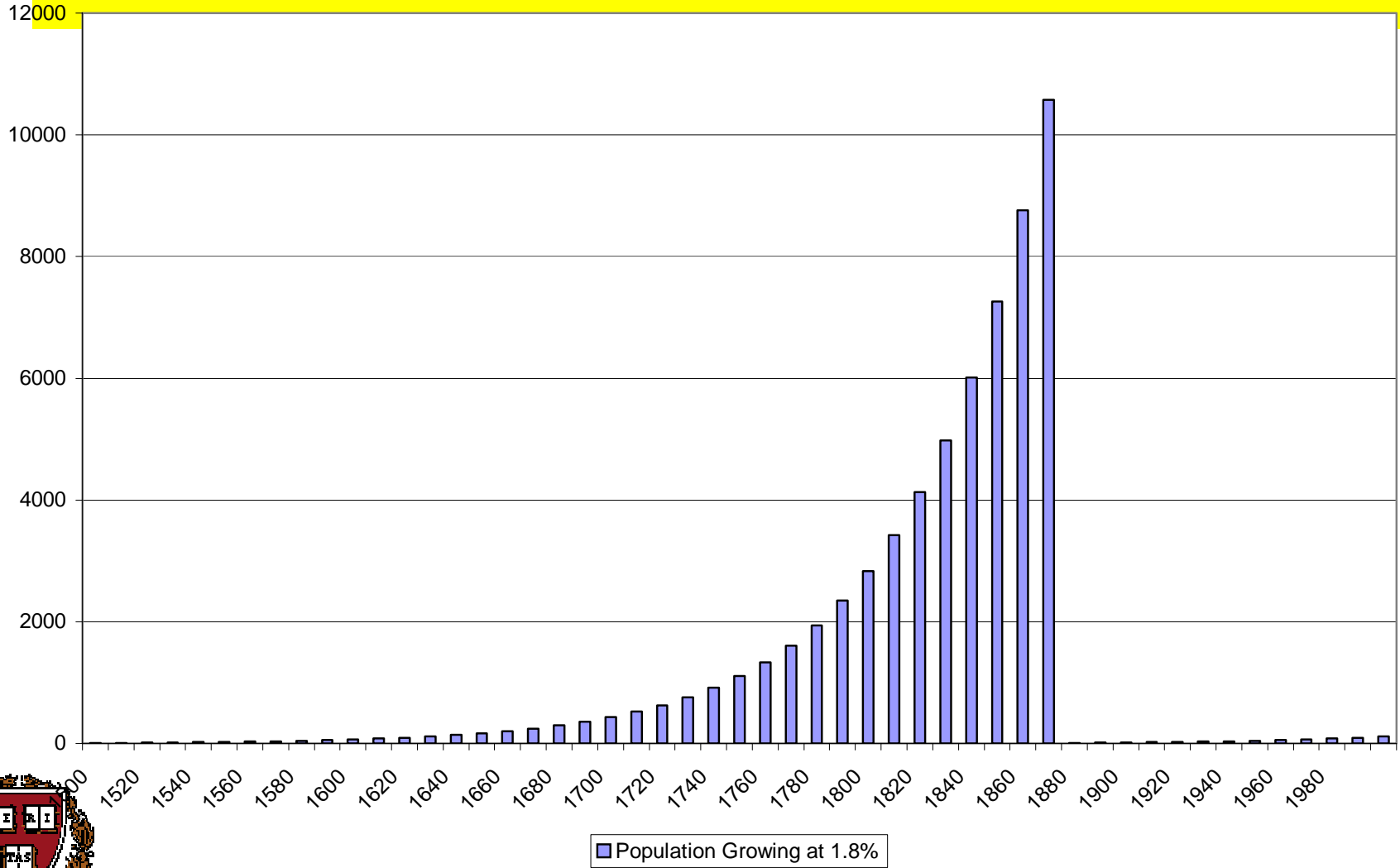
You can use this formula to calculate any phenomena at time “B” with initial input of “A” at an earlier point which is known to grow at an fixed rate “y” over a known period “n.”

$$B = A \cdot y^n$$

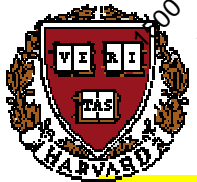
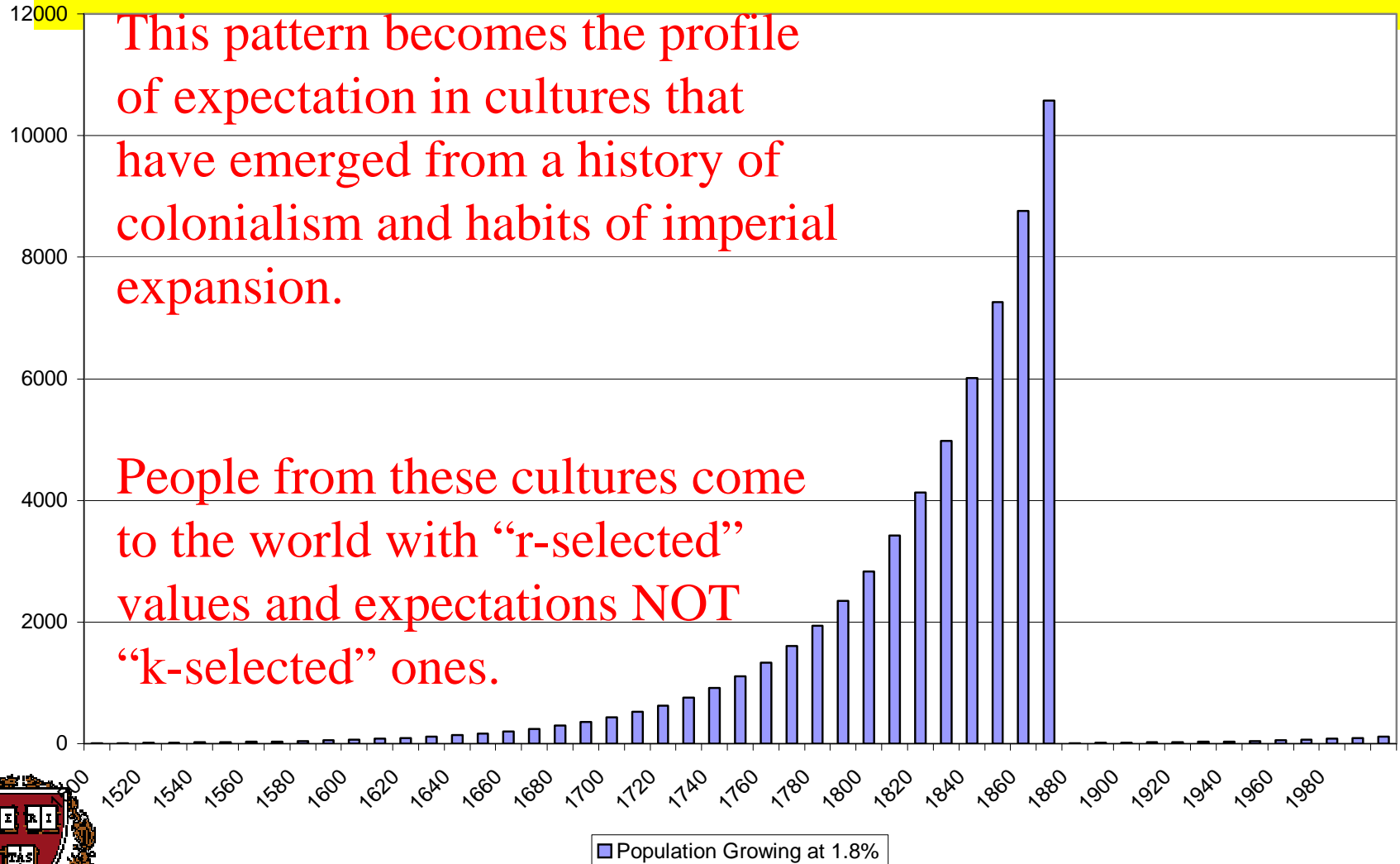
High-school algebra is sufficient here -- no need for rocket science.

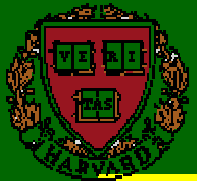


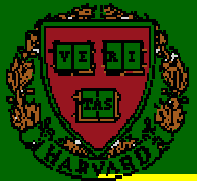
Population Growing at 1.8%

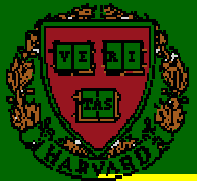


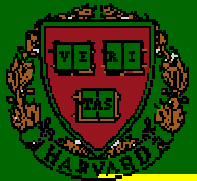
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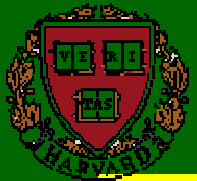


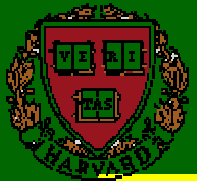


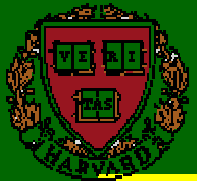


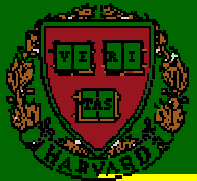






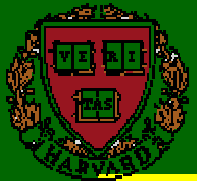


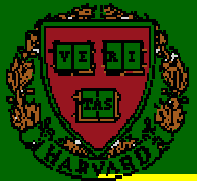


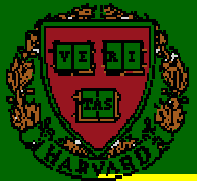


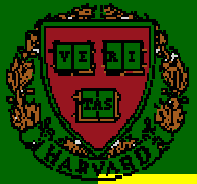
EDEA - MassGIS 2000

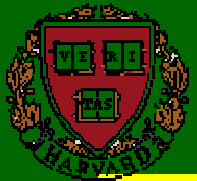
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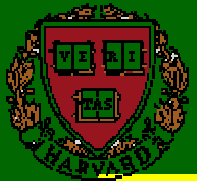


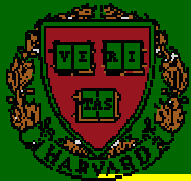




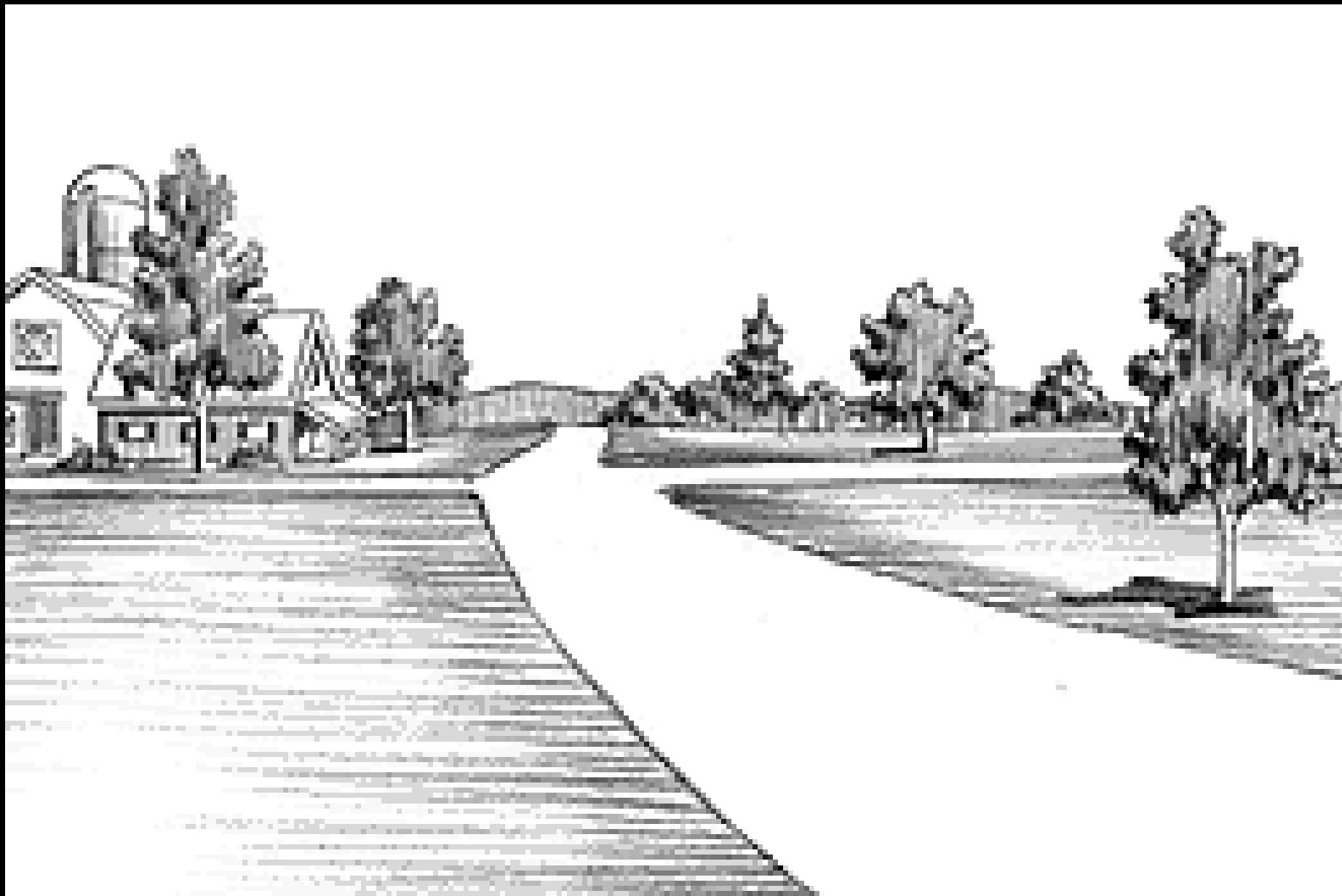








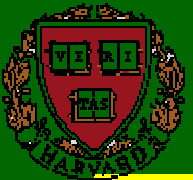
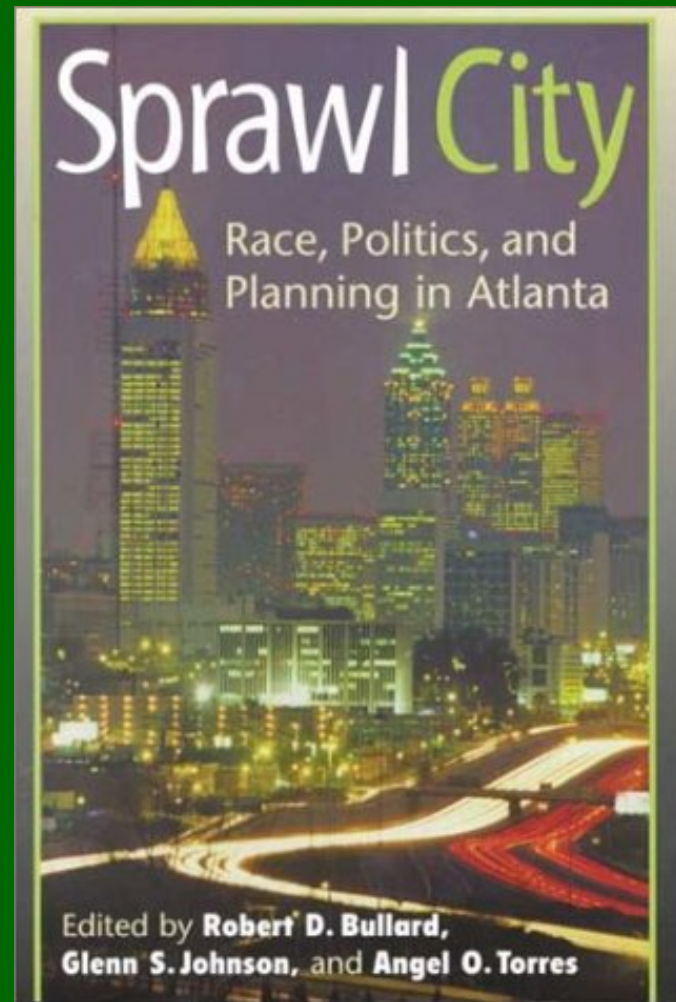




Sprawl and the ‘Colonial’ worldview...

Atlanta has been identified as the “poster-child” of sprawl.

Sierra Club calls it the most sprawl-threatened city in the United States. *

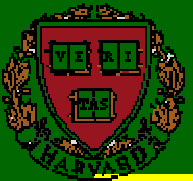


Atlanta Sprawl



The counties around Atlanta have experienced phenomenal growth. National urban policy groups have focused on the region and its problems. *

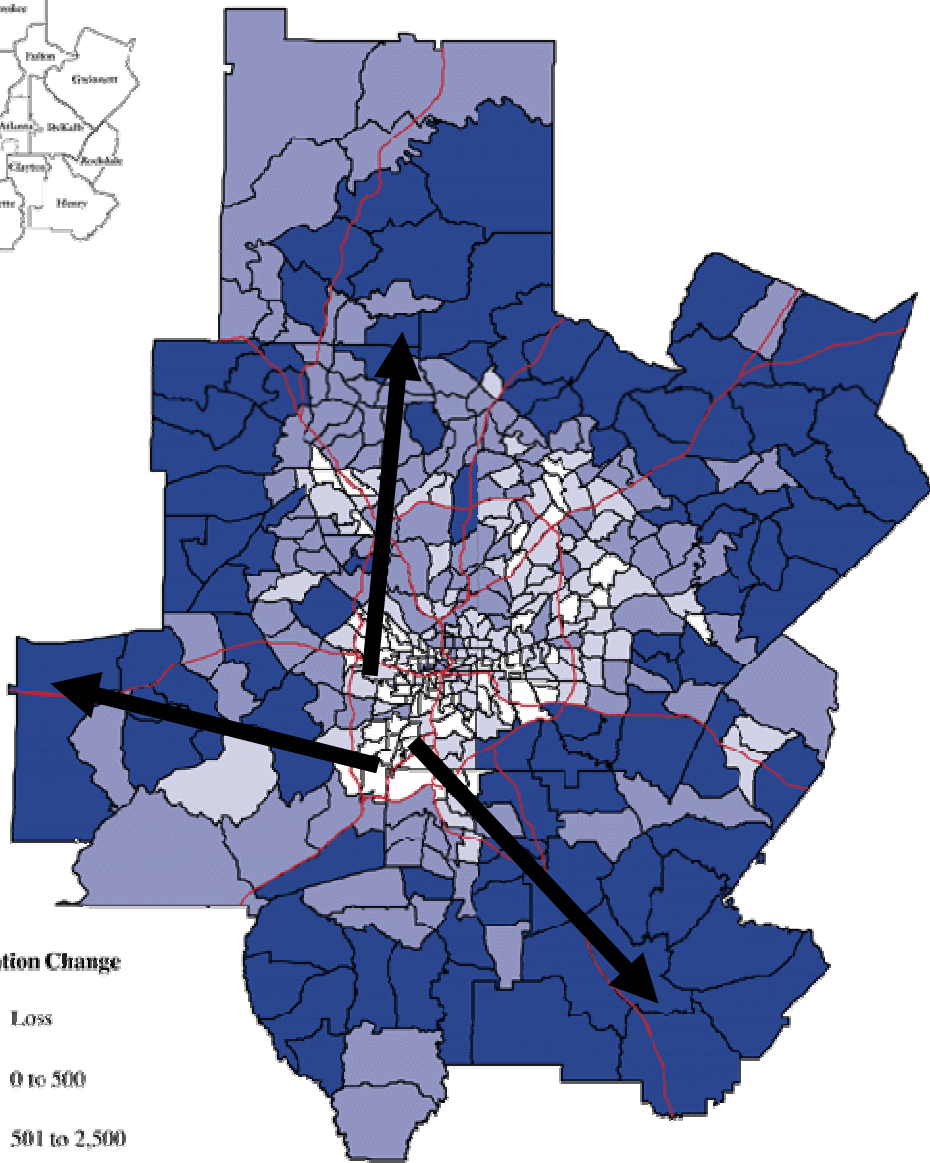
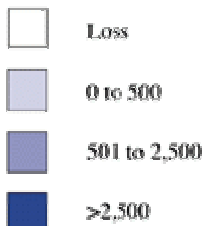
Even farmers have had their say. *



Population Change 1990-2000



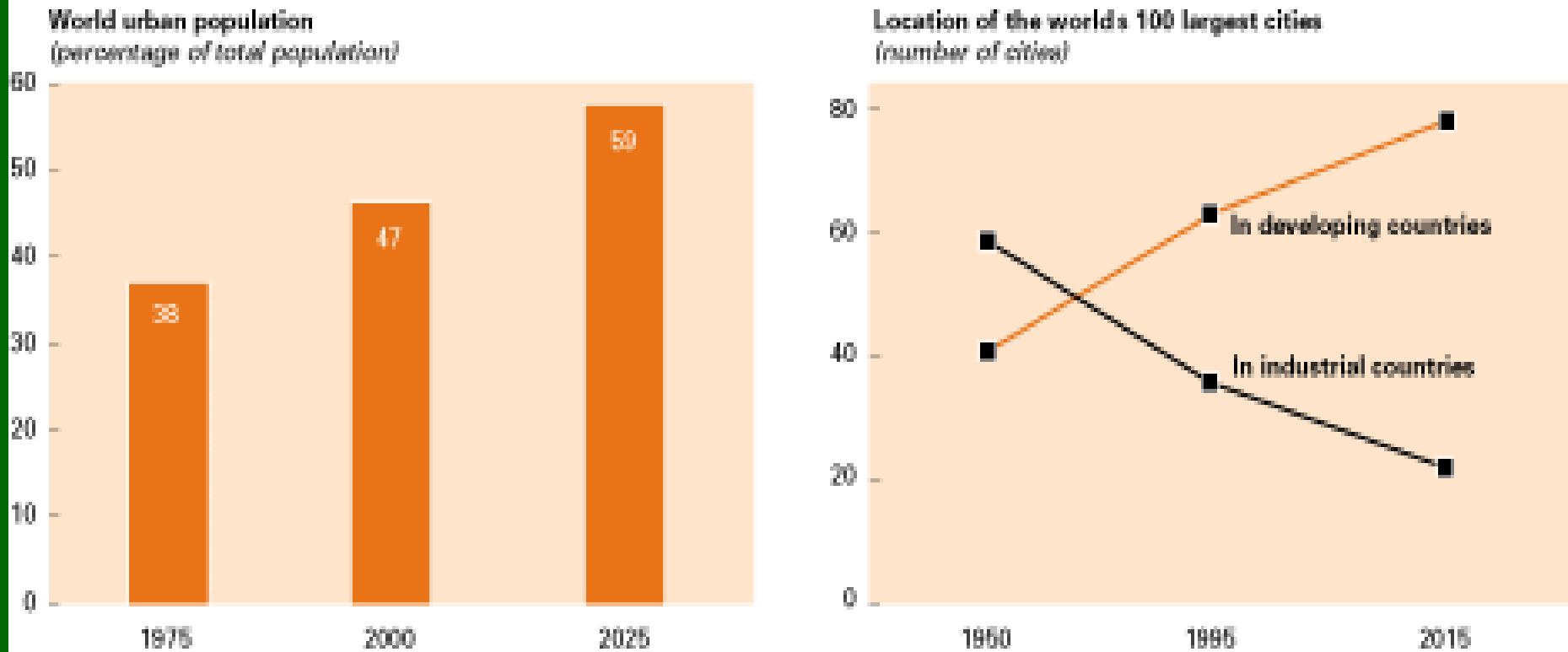
Population Change



Atlanta has experienced “white flight,” as the more affluent leave the “core” and move to the sprawling “periphery.”

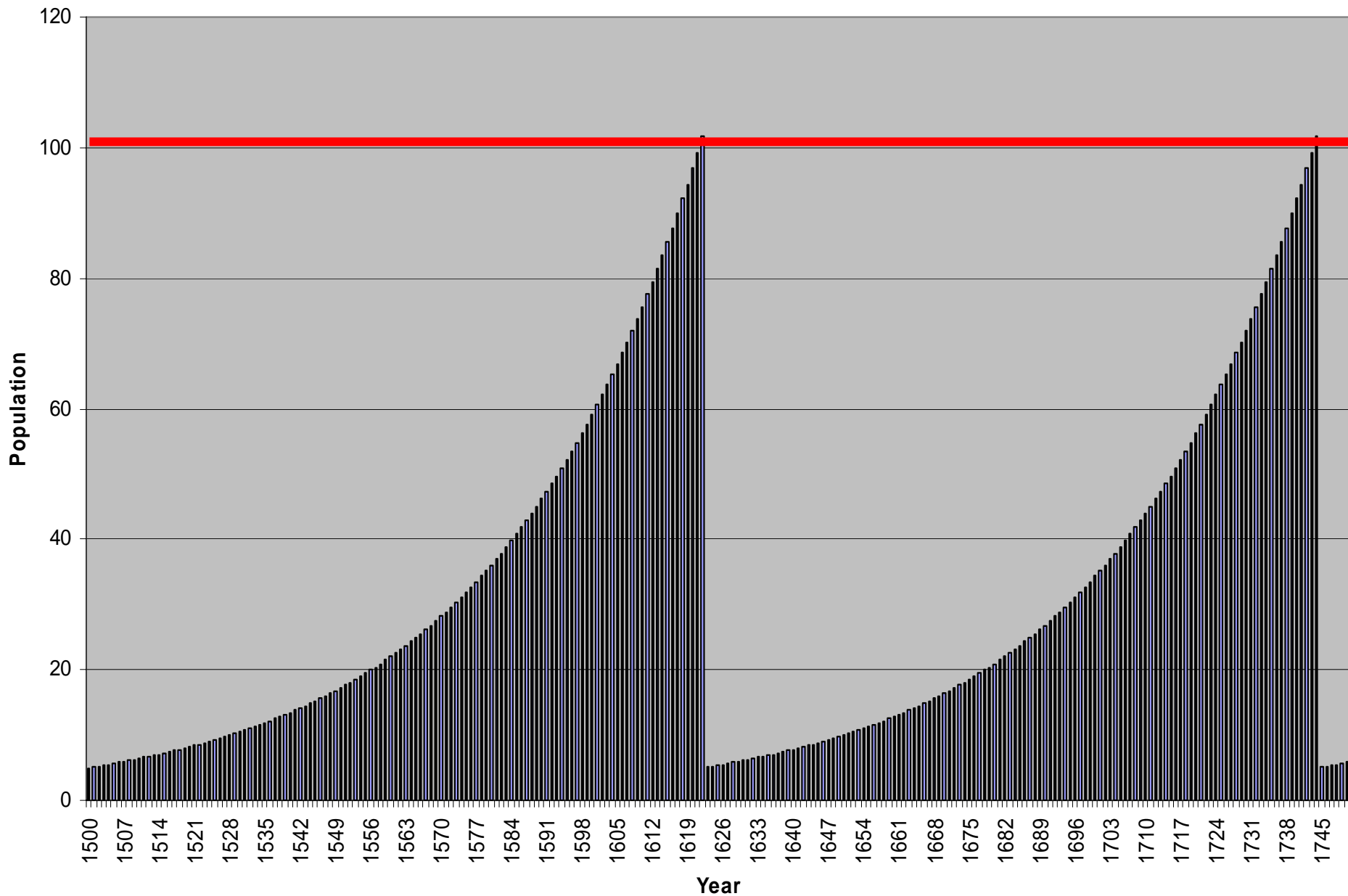
Problems, Issues and Perspectives

Figure 7
Urban population is growing—primarily in developing countries

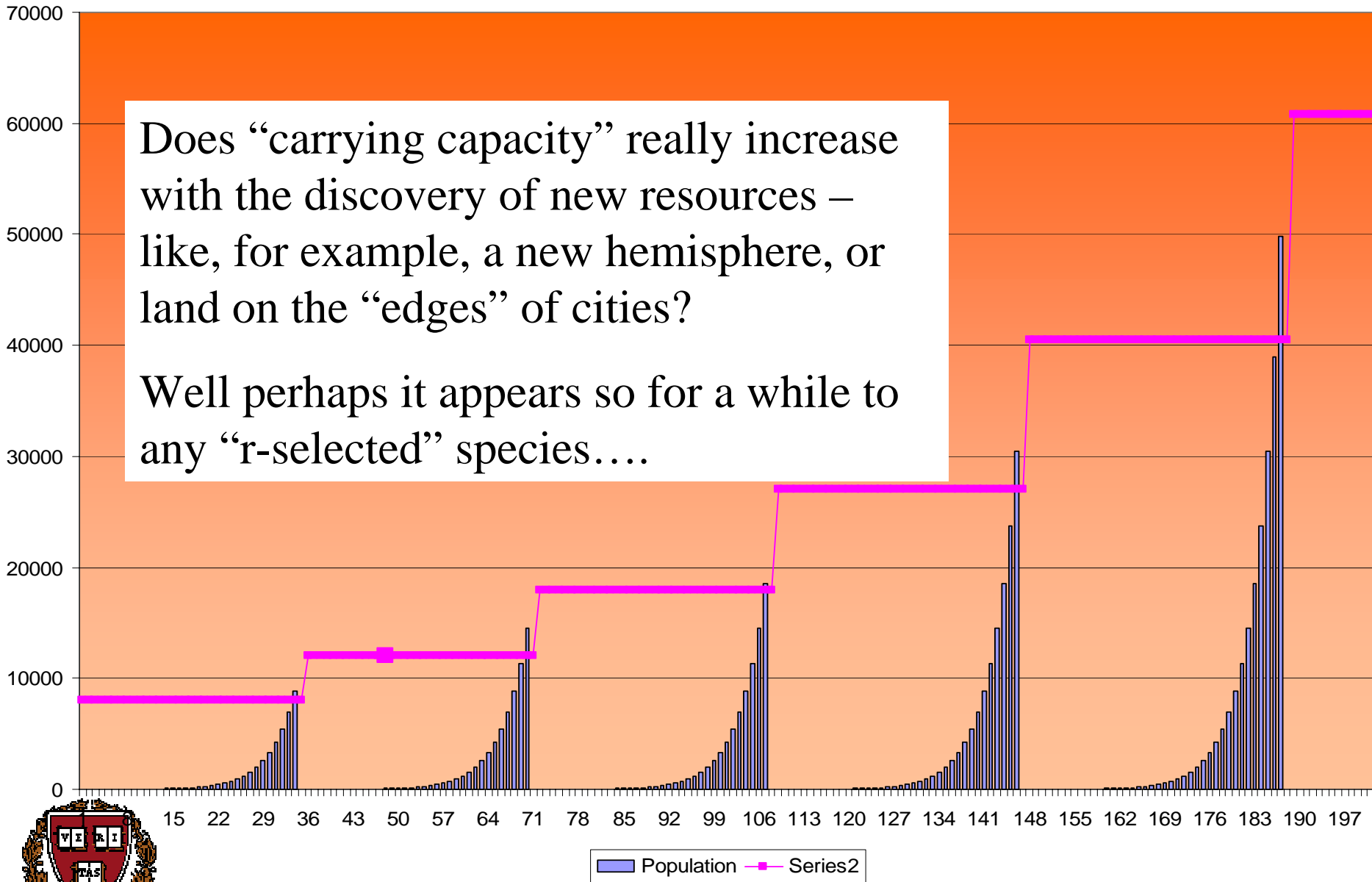


Source: United Nations Department of International Economics and Social Affairs, *World Urbanization Prospects*, 1998.

Growth of r-Selected Species

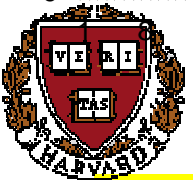


r-Selected Population Growth with Increase in K

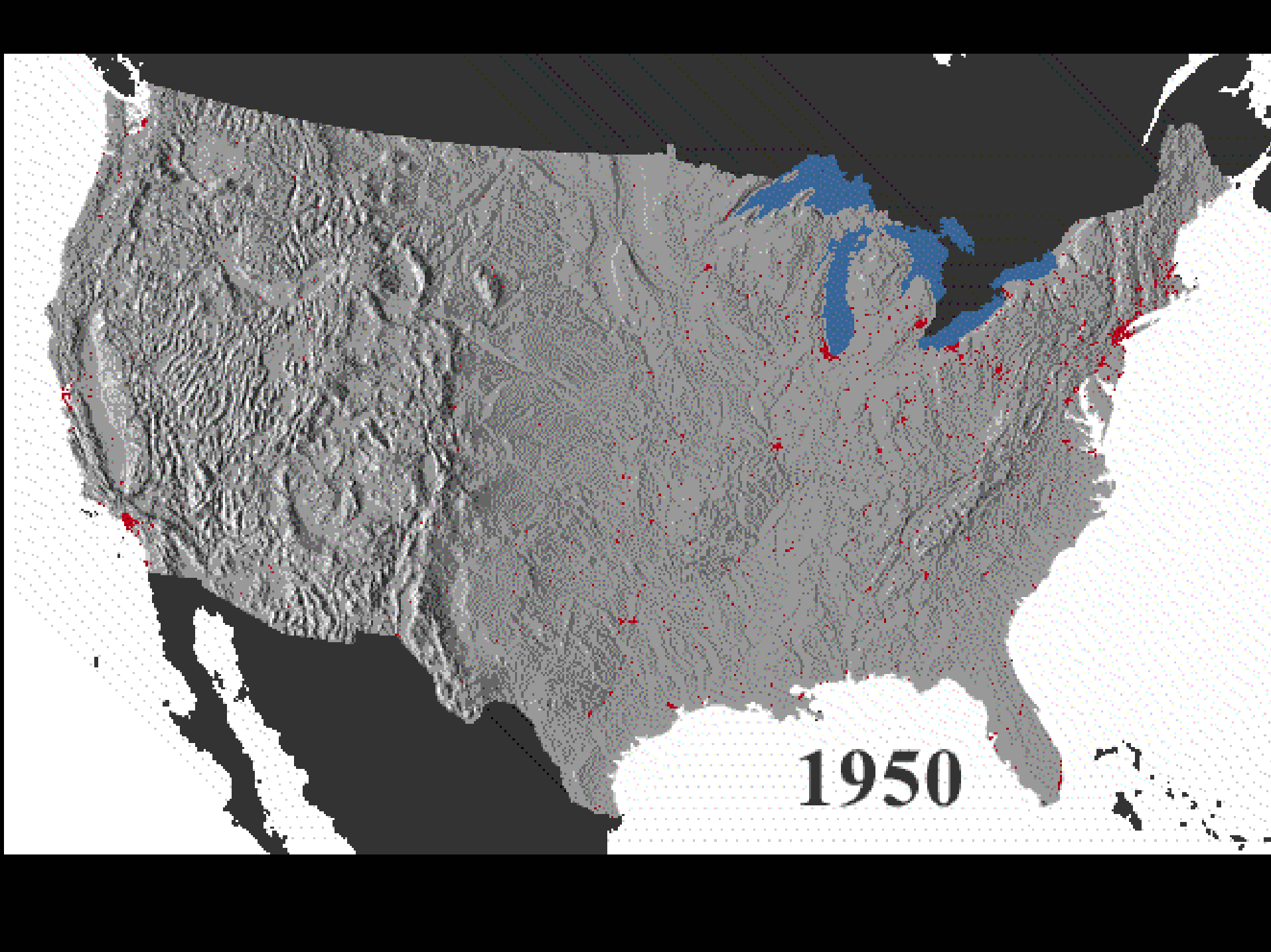


Does “carrying capacity” really increase with the discovery of new resources – like, for example, a new hemisphere, or land on the “edges” of cities?

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



Population Series2



1950

Atlanta is not alone in America...

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

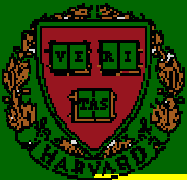
Detroit also provides a classic case study of sprawl *and* its link to racism....

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...



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Session 6

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