Introduction

This course provides an introduction to population history through critical analysis of controversial debates in the field. The schedule identifies three types of class.

Schedule

Click on weeks for required readings.

**Week 1.**

January 20. Introduction: Key Initia to allow time to watch this incarceration. January 22. Lecture: The Agricultural Revolution and demographic theory.

**Week 2.**


**Week 3.**


February 5. Methods and Sources: Concept of a Population, Principles of Demographic Measurement, Age, Period, and Cohort.

**Week 4.**


**Week 5.**


**Week 6.**


**Week 7.**

March 3. Guest Lecture: Christopher Isett on The Early Modern Chinese Demographic System.
Core Readings

**Week 1: Agricultural Revolution**


http://www.springerlink.com/content/m12v3h0v66012777595l builders.pdf


**Week 2: Paleoecology**


Text: http://www.lhsmc.cuny.edu/mccaa/paleoecology.doc

Tables: http://www.lhsmc.cuny.edu/mccaa/paleoecology.xls

Figures: http://www.lhsmc.cuny.edu/mccaa/images500.png


http://www.springerlink.com/content/p6681601.0060v864f1l builders.pdf

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Homework Assignments

**Assignment #1.** Use the IFUMS Online tabulation system to create graphs of the age distribution in the United States in 1900 and 2007. Compare the graphs carefully. Write a paragraph that (1) describes all the differences you see, and (2) speculates as to the possible causes of those differences. Email the paragraph to tiis@tigermail.com by February 3.

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Essay Assignments

**Essay #1.** Pick a topic from the lectures and readings for weeks 1 through 8. Select 2 or 3 supplemental readings on the topic, drawn from the list below or your own research. Write a critical essay of 500-1000 words describing your reaction to the readings and lecture. Who is right and who is wrong? Why? What kind of evidence did you find most persuasive? What evidence was unpersuasive? Write your essay in Word or another major word-processing program and email it to tiis@tigermail.com by March 24.

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Supplemental Readings


This item is intended as a reference and may be useful for the homework and labs.

For your two essay assignments, you should read 2 or 3 articles in addition to the core readings. The following are suggestions, organized by weekly topic.

**Week 1:**

Lecture Outline

1. Introduction
2. Reproductive strategies of organisms and the Balancing Equation
3. Paleolithic developments
4. Agricultural Revolution and Neolithic population

World Population 10,000 BCE-2000AD
World Population, 1000-2000

Lecture Outline

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**r strategy**
- Precarious equilibrium with the environment
- High rates of increase
- Violent and in some cases regular cycles of growth and decline

**K strategy**
- Stable equilibrium with the environment
- Rates of increase compatible with environment
- Slow and irregular cycles

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**Bioreproductive characteristics**
- Small bodies
- Short lives
- Short gestation
- Large litters
- Short intervals between births
- Short length of generation
- High potential rates of growth

- Large bodies
- Long lives
- Long gestation
- Single births
- Long intervals between births
- Long generations
- Low potential rates of growth

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![Graphs showing population over time for r strategy with fluctuations and for K strategy with steady increase](image)
Balancing Equation

Assuming closed population (like the world):
\[ \Delta P = B - D \]

With migration:
\[ \Delta P = B - D + I - O \]

\( \Delta P \) = change in population
\( B \) = Births
\( D \) = Deaths
\( I \) = In-migrants
\( O \) = Out-migrants
Lecture Outline

1. Introduction
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Population take-off:
6000 BCE-1 AD

World Population, 100,000 BCE-1000 AD

Population (millions)

Year

Age (million years ago)

Europe

Africa

Asia

Americas

Homo sapiens

Homo neanderthalensis

Homo rhodesiensis

Homo antecessor/mauritanicus

Homo erectus

Homo ergaster
Handaxe, Algeria, ca. 700,000 BP

Neanderthal tools, ca. 250,000 BP
Upper Acheulean handaxes from Kalambo Falls, 180,000 BP
Lecture Outline

1. Introduction
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Emmer

Wild Barley
Einkorn wheat
Neolithic grind stone for processing grain

Harvester’s sickle
Sumerian culture, Iraq, 3000 BCE
Baked clay, 2200 BCE
Domesticated Squash seed from Oaxaca, Mexico, ca. 10,000 BP
Main theories to explain simultaneous development of agriculture around the world

- The big animals were exterminated by overhunting.
- Global warming at the end of the last ice age stimulated development everywhere.
- Agriculture and economic development were inevitable developments, once human culture had been set in motion
- The agricultural revolution was driven by population pressure
Mark Cohen’s interpretation:
Agriculture resulted from population pressure

Jared Diamond in New Guinea
Botswana Bushmen

Akie, East Africa savannah

Penan, Borneo forest
Matis in the Amazon

Shoshone, ca. 1900
Two opposing theories of Neolithic demography

- **Classic theory:**
  - Improved food supply, reduced predatory threat, **reduced** mortality, so deaths declined and population grew.

- **New Theory:**
  - Decline in food quality, increase in potential for crop failure, increase in transmission of disease **increased** mortality, so deaths increased.
  - Reduced birth intervals and decline in the cost of childrearing led to an increase in births, more than compensating for the increase in deaths.
Some Unanswered Questions

• Why did agriculture emerge at several places around the world at almost the same time?

• Did agriculture stimulate the Neolithic take-off in population growth, or did the population growth stimulate the adoption of agriculture? Or was it a little bit of both?

• Did the introduction of agriculture lead to a worsening or improvement of human health and nutrition?