

**READINGS FOR LECTURES:**

Notes on SOC - Sections 1-4

**READINGS FOR FINAL PAPER**

Holland - Hidden Order - Chapters 1-2

Lewin - Complexity - Chapter 1-2

Holland - Emergence - Chapters 1-3

**WEBSITE:** <http://chaos.swarthmore.edu/courses/SOC002a/index.html>

**ARTICLES ON WEBSITE** - I will use selected portions of these papers in lectures. Thus, it would be useful for you to have at least looked at some of them. Some of the papers will be useful in your final paper depending on topic chosen.

**Thinking complex**(12 pages)

How Can We Think the Complex?

**Questions on Complexity**(8 pages)

Five Questions on Complexity

The following papers lead up to the Bak-Sneppen model of evolution.

**01\_Kellogg**(12 pages)

The Role of Phyletic Change in  
the Evolution of *Pseudocubus vema*

**02\_Raup**(3 pages)

Mass Extinctions in the Marine  
Fossil Record

**03\_Raup**(6 pages)

Biological Extinction in Earth  
History

**05\_Raup**(18 pages)

Patterns of Genetic Extinction in  
the Fossil Record

**06\_Sepkowski**(10 pages)

10 Years in the Library: New Data  
Confirm Paleontological Patterns

**07\_Gould**(38 pages)

Punctuated Equilibria: The Tempo  
and Mode of Evolution Reconsidered

**13\_Alvarez**(15 pages)

Extraterrestrial Cause for the  
Cretaceous-Tertiary Extinction

**Sandpile Implications**(7 pages)

A Sandpile Experiment and its Implications