Achim D. Herrmann
Barrett, the Honors College
Arizona State University

The Science behind the Stories

Barrett, the Honors College

All information is current through the fall 2007 semester.

* Current Student Enrollment: 2,766
* Average SAT/ACT Scores: 1320/29
* Number of Merit Scholars for fall 2007 class: 148
* Student to Faculty ratio in classes taught by Honors College faculty: 15 to 1
* Average unweighted GPA of entering first-year students: 3.79
* Top 5 States of Origin (other than Arizona): California, Texas, Washington, Colorado, Pennsylvania
* Top 5 Countries of Origin (Other than US): China, Mexico, Canada, India, UK and Philippines (tied)
* Number of National Merit Scholars: 583
* Number of National Hispanic Scholars: 291
* Percentage of female students: 54%
* Percentage of male students: 46%
* Percentage of in-state students: 70%
* Percentage of out-of-state students: 30%

Honors seminars

BARRETT
THE HONORS COLLEGE
AT ARIZONA STATE UNIVERSITY

P.O. Box 871612
Arizona State University
Tempe AZ 85287-1612
(480) 965-4033
Fax: (480) 965-0760

Subcategories:

- Fall 2008 Honors Courses
- Spring 2008 Archive
- Fall 2007 Archive
- Spring 2007 Archive
- 2006 Archive
- 2005 Archive
- 2004 Archive

Honors Courses

The goal of the College's curriculum is to develop habits of mind that enable persons to be lifelong learners, creative problem solvers, and participatory citizens in a democratic society. The College emphasizes small classes, generally limited to 19 students; seminars, multi-disciplinary team taught courses and other engaged modes of learning; and the development of critical reading, discussion, and writing skills. The College appoints faculty members who are responsible for offering the core honors curriculum, but the College otherwise utilizes the instructional and research resources of the University as a whole. In essence, The Human Event represents, in microcosm, the great benefits of becoming part of the Barrett Honors College - small, student-centered, seminar-style classes in which you and your classmates explore the world's greatest literature and most profound ideas with a faculty member chosen for his or her ability to facilitate lively, meaningful discussion. In this intellectually charged atmosphere, there is a bonding that takes place among students over the course of the year, and student-faculty interaction becomes a meaningful mentoring experience.

In essence, there are three different ways to take honors courses:

1) HON prefix courses are offered at the lower division (100 and 200) level and at the upper division (300 and 400) level. HON courses have a maximum enrollment of 19 students, are conducted in seminar format, are interdisciplinary in content and approach, and have a significant writing component. These courses are taught primarily by the faculty in Barrett Honors College, but each semester some HON courses are taught by disciplinary faculty.

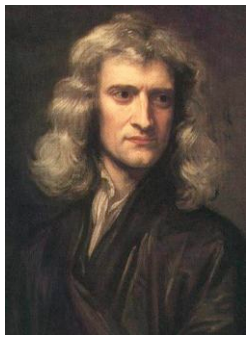
2) Honors-only courses carry the prefix of the department offering the course. They are designed to challenge students in a small class format and develop in two ways:

a) breakout sections of large lecture courses and
b) stand alone seminars.

Both forms are limited to Honors students (although in exceptional cases outstanding non-Honors students can be added with permission of the professor).

The Human Event: Science Focus

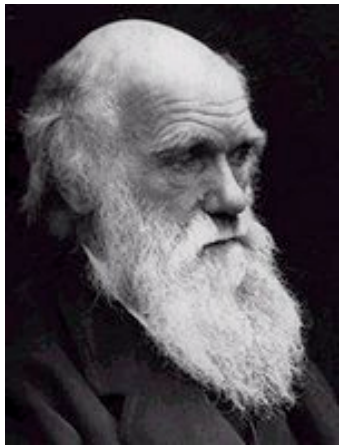
We discuss 3 paradigm shifts, from 1600's to present

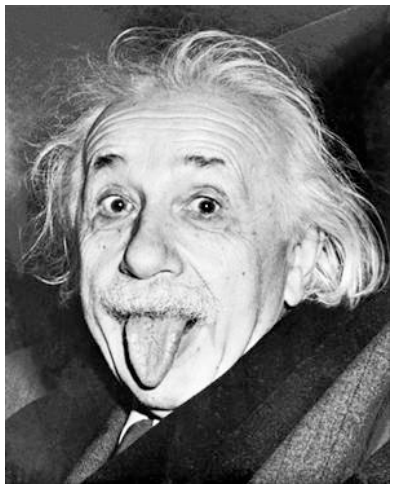


- primary readings from

Galileo–Newton–Einstein
Lyell–Wegener
Chambers–Paley–Darwin

- Social relevance; history and philosophy of science

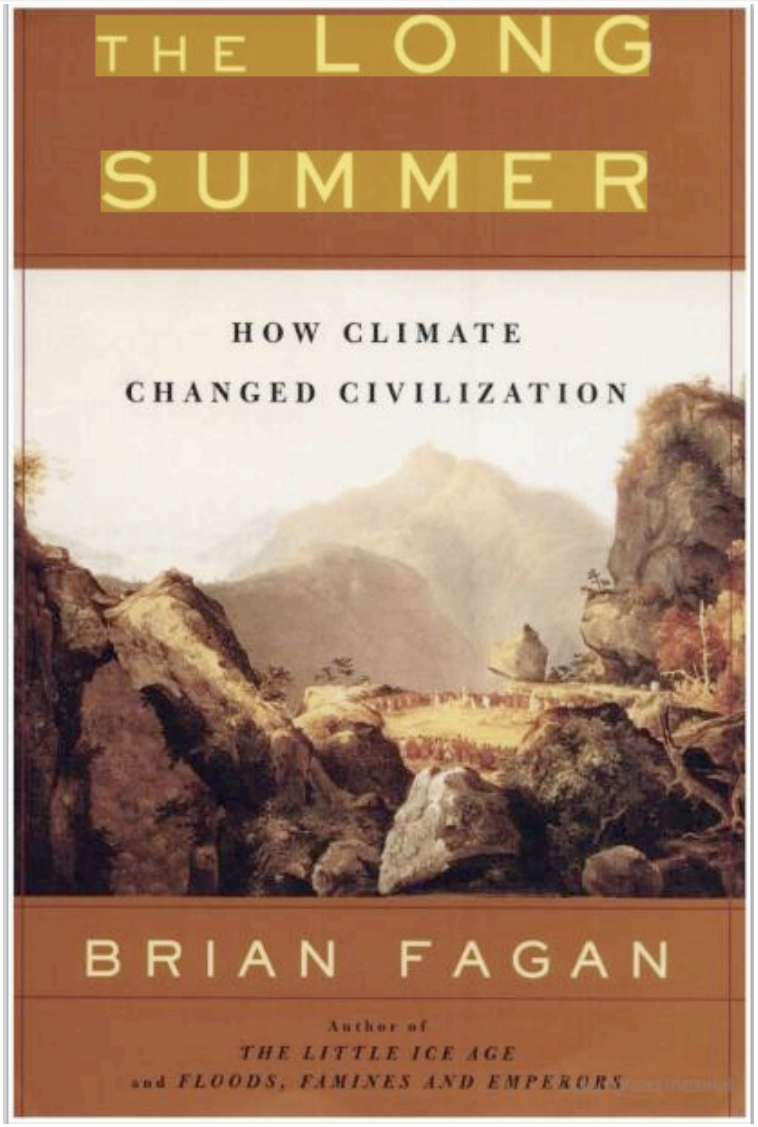


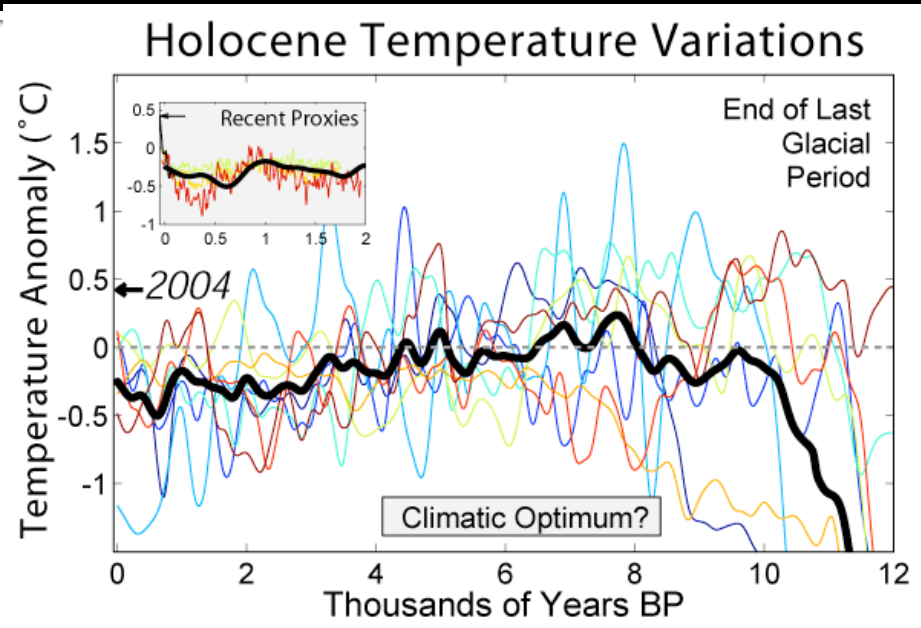


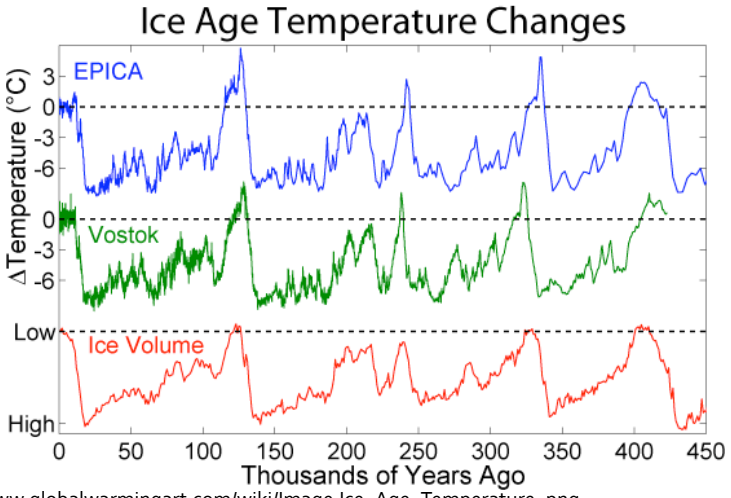
The Science behind the Stories

- The Interconnectedness of human evolutions and climate change
  - Global climate system, planetary energy balance, sea level change and rise of civilizations, etc.
- Natural Hazards
  - Volcanic eruptions, tsunamis, earthquakes
- Biodiversity crisis
  - Paleogeography, speciation, etc.

Human evolution and climate change

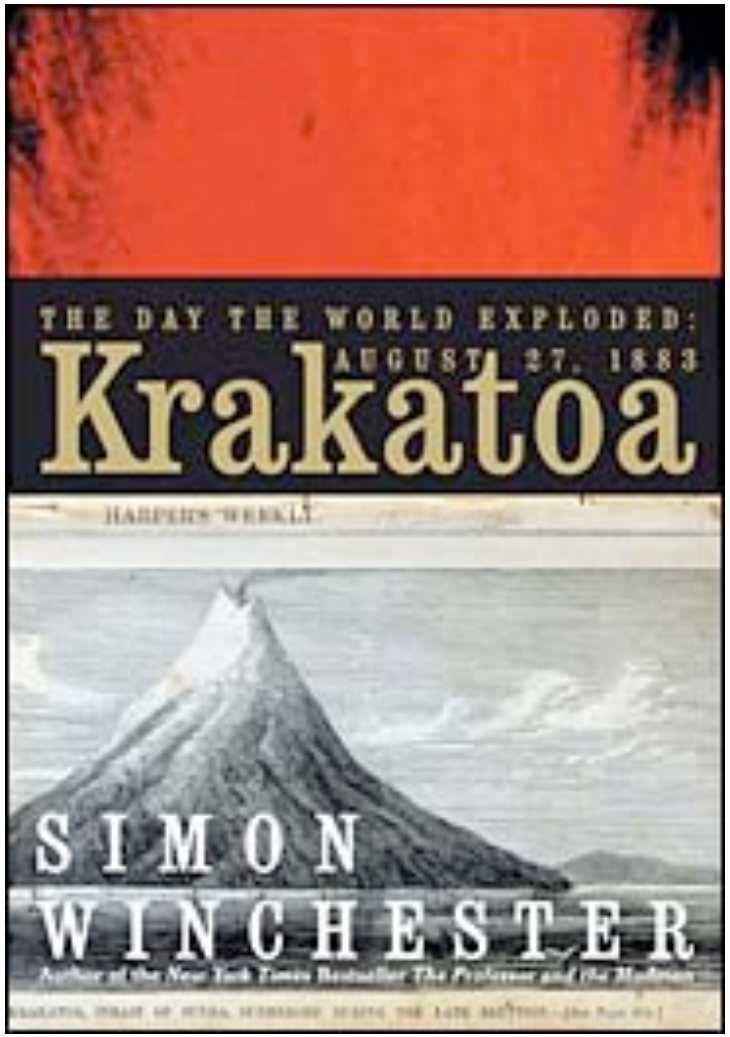


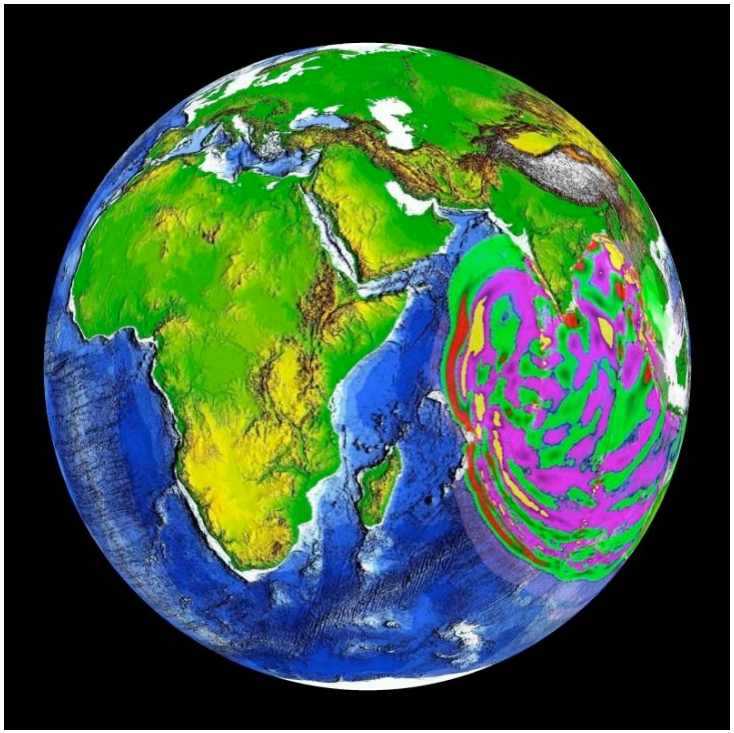




http://www.globalwarmingart.com/wiki/Image:Ice_Age_Temperature_png

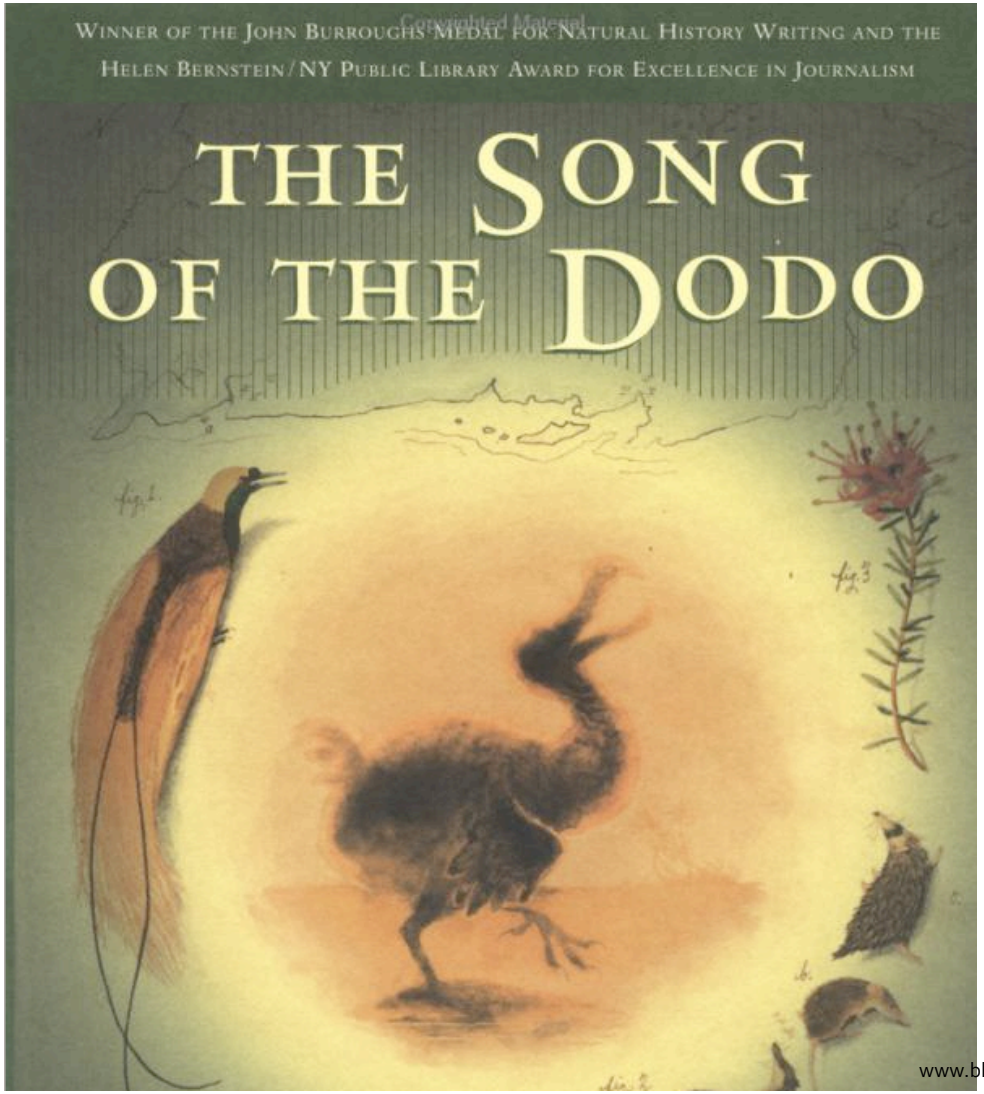
Natural hazards

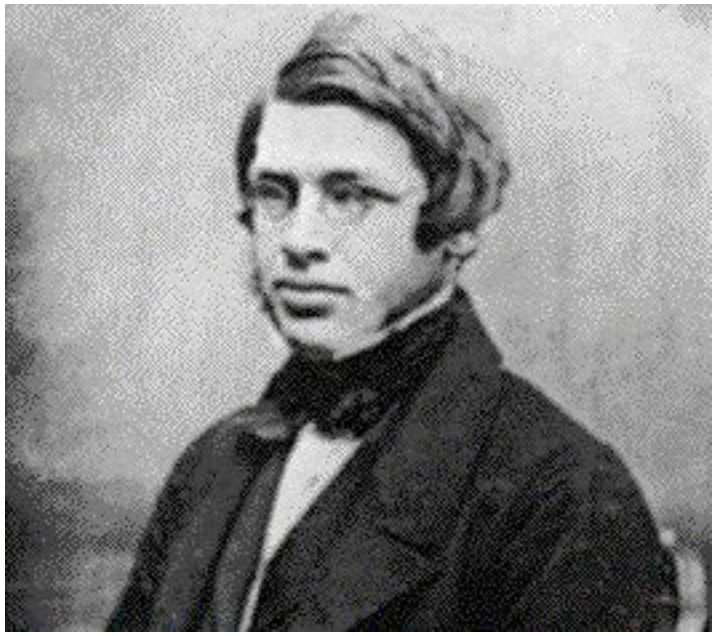




http://sos.noaa.gov/images/fullsize/Ocean/tsunami.jpg

Biodiversity crisis





Alfred Russel Wallace

www.blackwellpublishing.com/ridley/image_gall...

Project – doing science …

EdGCM Educational Global Climate Modeling

search...

Main Menu
- Home
- Register
- About
- Software
- Download
- FAQ
- Support Forums
- Development
- Contacts
- Events Calendar

Outreach
- Community Showcase
- Simulation Exchange
- eJournal Exchange

Education
- Education General
- Classroom Exercises
- Education Standards
- Student Projects
- Workshops / Training

Polls

What Interests You?
- Global Warming
- Paleoclimate
- Little Ice Age
- Catastrophic Events

EdGCM: The Project

The EdGCM Project develops and distributes a research-quality global climate model (GCM) with a user-friendly interface that runs on desktop computers. Anyone can explore the subject of climate change using the same methods and tools that scientists employ. The software allows users to experience the full scientific process including: designing experiments, setting up and running computer simulations, post-processing output, using scientific visualization to display results, and creating scientific manuscripts ready for publishing to the web.

Read more...

"Anthropocene" Greenhouse Gas Effects

Outreach - Student Projects

Written by Dominique Alhambra and Christine Kwitek

Wednesday, 09 May 2007

Submitted in partial fulfillment of: Course No. AOS 331, Prof. Jack Williams, Dept of Geography, Univ. of Wisconsin - Madison. Fall 2006

The early anthropogenic hypothesis by William Ruddiman posits that human influence on climate may have actually begun thousands, not hundreds, of years ago. Increased greenhouse gas levels were not solely caused by greenhouse gas emissions from fossil fuel burning after the start of the Industrial Revolution, but also caused by our ancestors' first agricultural developments. The resultant rise in temperature then delayed the glacial onset that should have occurred naturally. Through climate simulations with the EdGCM model, we compared pre- and post-industrial levels to estimated natural levels for five greenhouse gases: carbon dioxide, methane, nitrous oxide, and two chlorofluorocarbons (CFCs). Our results put our model at, or very close to, an incipient glacial state, supporting the hypothesis of an overdue glaciation.

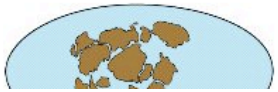
Read more...

Snowball Earth: Effect of Obliquity

Outreach - Student Projects

Written by John Swain and Jeremiah Marsicek

Wednesday, 09 May 2007



Geologic evidence suggests that during the Sturtian period (~750Ma) of the Neoproterozoic Era the Earth was blanketed by snow and ice. Glacial deposits are found

Examining the Effects of Global Warming on Greenland

Outreach - Exercises

Written by Mark Chandler

Sunday, 11 December 2005

Tracking the changes in temperature and snowfall over Greenland is of great interest to scientists because of the concern that global warming could lead to a melting of the

EdGCM in Antarctica
- ANDRILL in Google Earth
- Off the Ice
- Departure
- 12 Hours at the South Pole
- Head, meet foot.
- South Pole (Yes?)
- Me imitating Penguin

EdGCM Forum Posts

Visitor Locations

Discussion/Questions