

# Archaeology of Global Change?

# ARCHAEOMEDES

- Braudel's Mediterranean World investigated from a systems theory approach- specifically to connect present land degradation issues with a long term perspective.
- major 1990's EU science project.
- ARCHAEOEMEDS I (1992-1994) and II (1996-1999), "concerned with understanding and modeling the natural and anthropogenic causes of desertification, land degradation and land abandonment and their spatial manifestations, using the Complex Systems approach. Up to 65 researchers from 11 European institutions were involved, which included disciplines from Physics, Mathematics and Computing, via Geology, Hydrology and the Life Sciences to Sociology, Social Anthropology, History and Archaeology".
- Budget total ca US\$ 5 million.



Sander Van Der Leeuw



## ***Biocomplexity in the Environment*** (BE), (2000-06)

“ BE included activities designed to foster research and education on the complex inter-dependencies among the elements of specific environmental systems and interactions of different types of systems. ....The key connector of BE activities is complexity-the idea that research on the individual components of environmental systems provides only limited information about the behavior of the systems themselves.”  
([www.nsf.gov](http://www.nsf.gov))

# Some Biocomplexity Archaeology Funding Examples (05-04 only)

- Ben Fitzhugh [BE/CNH: The Kuril Biocomplexity Project: Human Vulnerability and Resilience to Subarctic Change](#)  
University of Washington \$1,710,159.00
- Herbert D.G. Maschner [BE/CNH: Complex Ecosystem Interactions Over Multiple Spatial and Temporal Scales: The Biocomplexity of Sanak Island](#) Idaho State  
University \$850,000.00
- C. Michael Barton [BE/CNH: Land-Use and Landscape Socioecology in the Mediterranean Basin: A Natural Laboratory for the Study of the Long-Term Interaction of Human and Natural Systems](#) Arizona State University  
\$1,499,996.00

# NSF Dynamics of Coupled Natural and Human Systems (CNH)

- The Directorates for Biological Sciences; Geosciences; and Social, Behavioral, and Economic Sciences have established Dynamics of Coupled Natural and Human Systems (CNH) as a standing, multidirectorate program.
- The Dynamics of Coupled Natural and Human Systems competition promotes quantitative, interdisciplinary analyses of relevant human and natural system processes and complex interactions among human and natural systems at diverse scales.



National Science Foundation  
WHERE DISCOVERIES BEGIN



INTERNATIONAL 2007-2008  
**POLAR YEAR**

### NABO IPY FUNDING

CUNY NSF	\$ 987,000
Denmark c.	\$ 200,000
Canada c.	\$ 75,000



**CLIMATE CHANGE 2007**

### NABO Post IPY FUNDING

GLTHEC NSF	\$ 47,000
NSF Islands of Change	\$ 1.1 million



Working Group I Contribution to the Fourth Assessment  
Report of the Intergovernmental Panel on Climate Change



# NABO

## North Atlantic Biocultural Organization

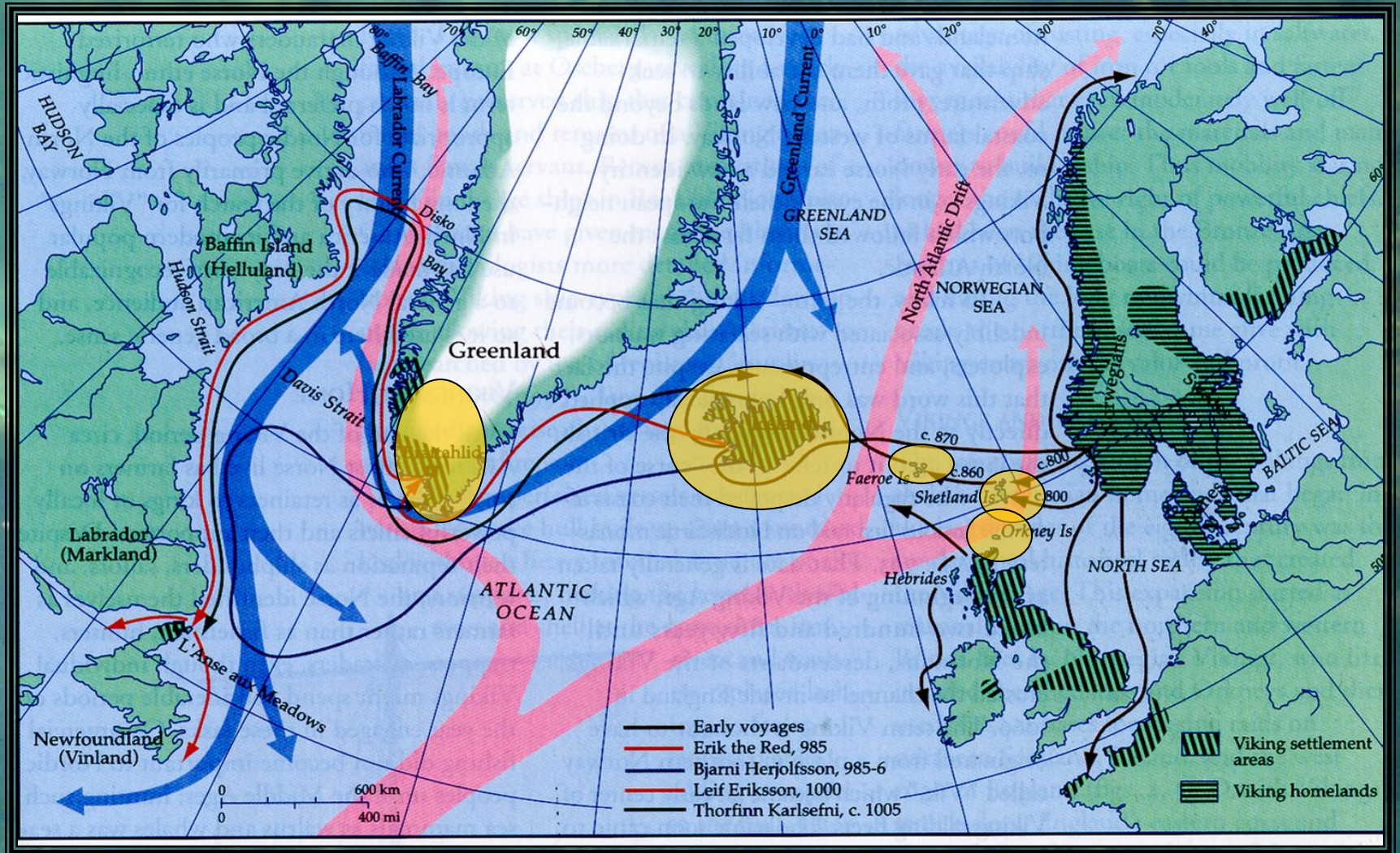


- International – 32 collaborating institutions in 14 nations.
- Interdisciplinary – combines natural sciences, social sciences, history, **education**
- Founded 1992 (NSF Workshop), funded by US, UK, Scandinavian sources
- Major Meetings NY 1992, Glasgow 94, Tromsø 96, St. John's 97, Glasgow 01, Copenhagen 04, Quebec 06, Bradford 08
- IPY Support – Denmark, Norway, Canada, US
- Total intl. funding support 1992- present ~\$ 25 million

# North Atlantic Connections

## Greenland, Iceland, Faroes, Shetland

### Science, Education, & Community



**IPY 2007-10**

**Human Ecodynamics in the  
North Atlantic  
Edinburgh 2007 Workshop**

- International Interdisciplinary Collaboration in Shetland, Faroes, Iceland, Greenland.
- Support from US, Dutch, Danish, Canadian IPY + leverage
- Major UK Partners
  - Edinburgh
  - Stirling
  - Bradford
  - Durham

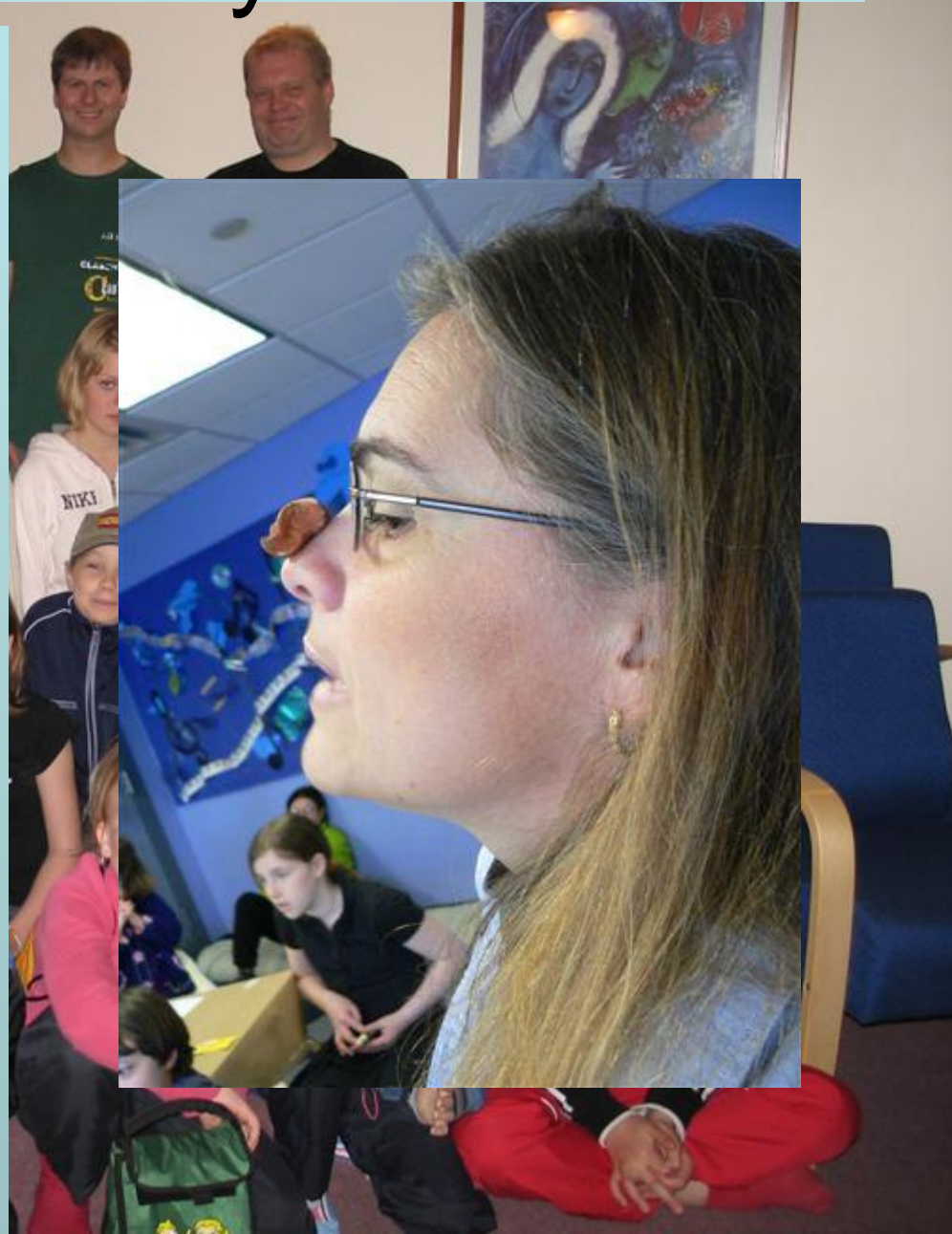


# International Interdisciplinary Field Schools

- NABO Intl. Field School in Iceland (1997 to present)
- Barbuda Historical Ecology Project field school in W. Indies (Jan 2005- present)
- NABO/ Bradford Univ. Field Schools
  - Old Scatness Shetland 2001-07
  - Rousay Orkney (w/Orkney College) 2009-present

# Beyond Community Outreach

- Fornleifaskóli barnanna/  
Kid's Archaeology + K-  
12 rural & inner city  
schools
- NYC + Iceland+  
Greenland+ Faroes+  
Shetland + Barbuda +  
Orkney
- GPS + Camera=  
Empowerment
- Teaching packs, hands  
on, local museums &  
heritage groups



# Connecting Island Education Programs

The background of the slide features a close-up photograph of four young Black students. On the left, a girl with braided hair looks intently at the camera. In the center, another girl with braids looks slightly to the side. On the right, a boy with a slight smile looks directly at the camera. The lighting is soft, and the overall tone is educational and positive.

## ***2009-13 NSF Islands of Change program***

- Connects N Atlantic with Barbuda West Indies
- Museum + field schools + community involvement + field science + international contacts and exchange.
- North- South/ Urban- Rural

# Starting Regional, Going Global GHEA?

- Spring 2009
  - Anna Kerttula (OPP ASSP) gets fired up about Global Change Archaeology
- Summer 2009
  - July 15 NABO submits conference grant
  - August 15 NSF provides ARRA funds
- Fall 2009
  - Aug- Sept 09 Anna triples the guest list (71 total)
  - Sept 15 Anna provides supplementary \$
  - Oct 14-18<sup>th</sup> Eagle Hill GLTHEC meeting
- Winter-Spring 2010
  - ASU meeting (February)
  - NABO IPY meeting Edinburgh (March)
  - SAA meeting St. Louis (April)

# Directions for CUNY?

- Centers of Excellence?
- National & International Partners
- Connected Initiatives
  - NSF / NOAA
  - GHEA
  - IHOPE
- Fieldwork & Training
  - Local
  - National
  - international
- Theory?
  - Resilience language?
  - Ecodynamics?
- Collaborative case studies of fully interactive interdisciplinary cutting edge science
- Sustainable direction?
- Sustainable organization?

# Improved NABO Website (Anthony Newton)

- <http://www.nabohome.org>
- Newsletter functions
- Data delivery
  - Lab reports
  - Databases
  - NABONE manual
  - Field manual
  - FISHBONE 2.1
- Student cooperation
- Meeting reports
- Field school info