



HfE Circumpolar Observatories North Atlantic Encounters Program



From prehistory to near present.

Combining disciplines, connecting academics, practitioners, local residents.

Humanities, Social Science, Natural Science, History, Local and Traditional Knowledge.

HfE, NABO, and UNESCO BRIDGES collaboration.

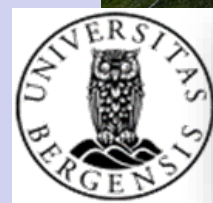
OPI too!!

What can we do together?



Some Participating NAE Projects

- Marine Mammal aDNA
- DataARC
- Bifrost Media
- Greenland
 - RESPONSE
 - Alluitsoq
- Iceland
 - Gufuskálar
 - Siglunes
 - Myvatn
 - Svalbardshreppur
- Orkney
 - Swandrow
 - Skail
- Outer Hebrides



Molecular Analysis of Archaeological Evidence for Cetacean Use in the Eastern and Western Medieval North Atlantic

Vicki Szabo, Brenna McLeod Frasier, Martin Carruthers, Ingrid Mainland, Frank Feeley, Thomas McGovern, Andrew Kitchener, Michael Buckley, Ramona Harrison, Jim Woollett, et. al.



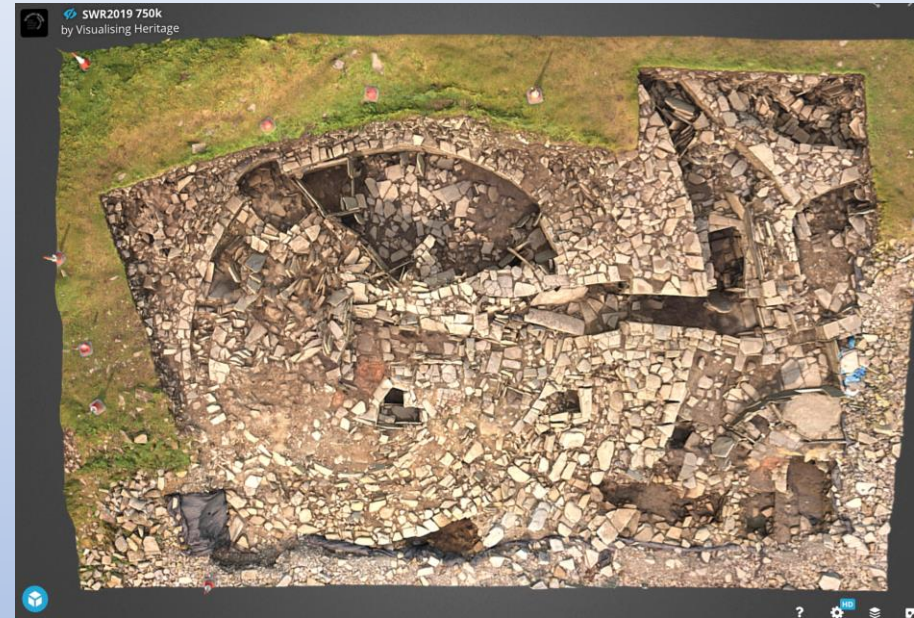
Featured site: The Cairns, Dr. Martin Carruthers,
Archaeology Institute, University of Highlands and Islands, Orkney

- Bone shavings collected from sites across the North Atlantic, dating between ~400 BCE and 1900 CE, including 35 Norse sites, 6 Iron Age sites, & 5 early/modern whaling stations.
- Lab analysis for species identification and genetic diversity, using ZooMS & DNA extraction and mtDNA sequencing
 - > 420 samples: success DNA: 47%, Collagen: 93%



Study identified 17 marine mammal species across North Atlantic samples, with baleen whale predominance Iceland, Greenland, and the Faroes and toothed whale predominance in Orkney and Shetland.

Swandro, Orkney : Archaeology against the Sea



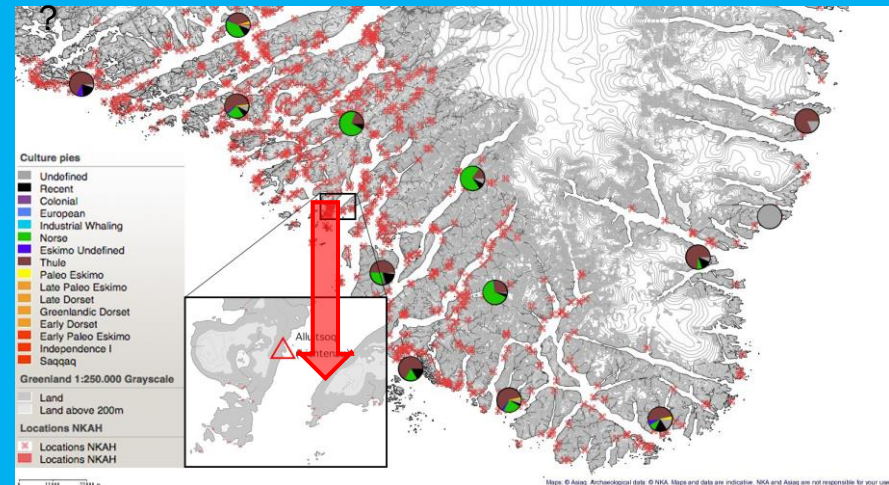
Alluitsoq (Lichtenau)

Cameron Turley, Aka Bendtsen, Wendi Coleman



- Former Moravian Mission est. 1774
- Once largest settlement in South Greenland
- One farmer remains, still an important site for descendants
- 2019 Ethnographic and Oral History Interviews
- 2019-20 Excavations

<http://nunniffiit.natmus.gl/spatialmap>



Direct Connections

- In some cases, connecting informants and their families to identified archaeological contexts
- (images shown with permission)

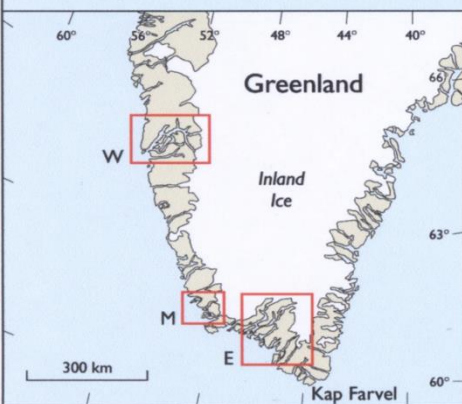
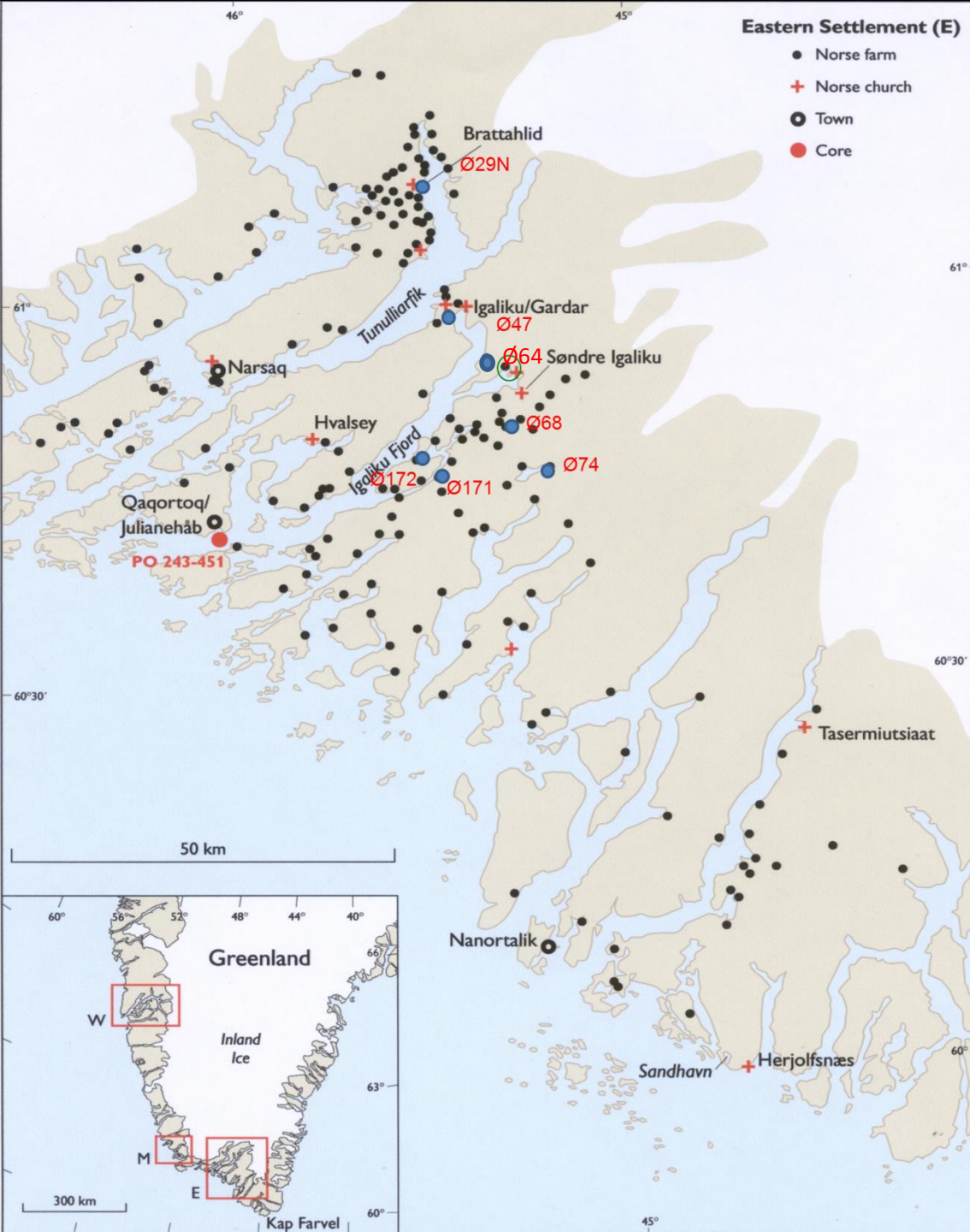




Midden Excavations: 2006-2016

Eastern Settlement (E)

- Norse farm
- + Norse church
- Town
- Core



2005-06 sites
E 29 Brattahlid
E74 Qorlortorsuaq

2007 sites
E78 Eqaqut
E172 Tatsipataa
E64 Innoqassaq
E60

2008 sites
E64 Innoqassaq
E68 Timerliit

2009-2010 site
E172 Tatsipataa

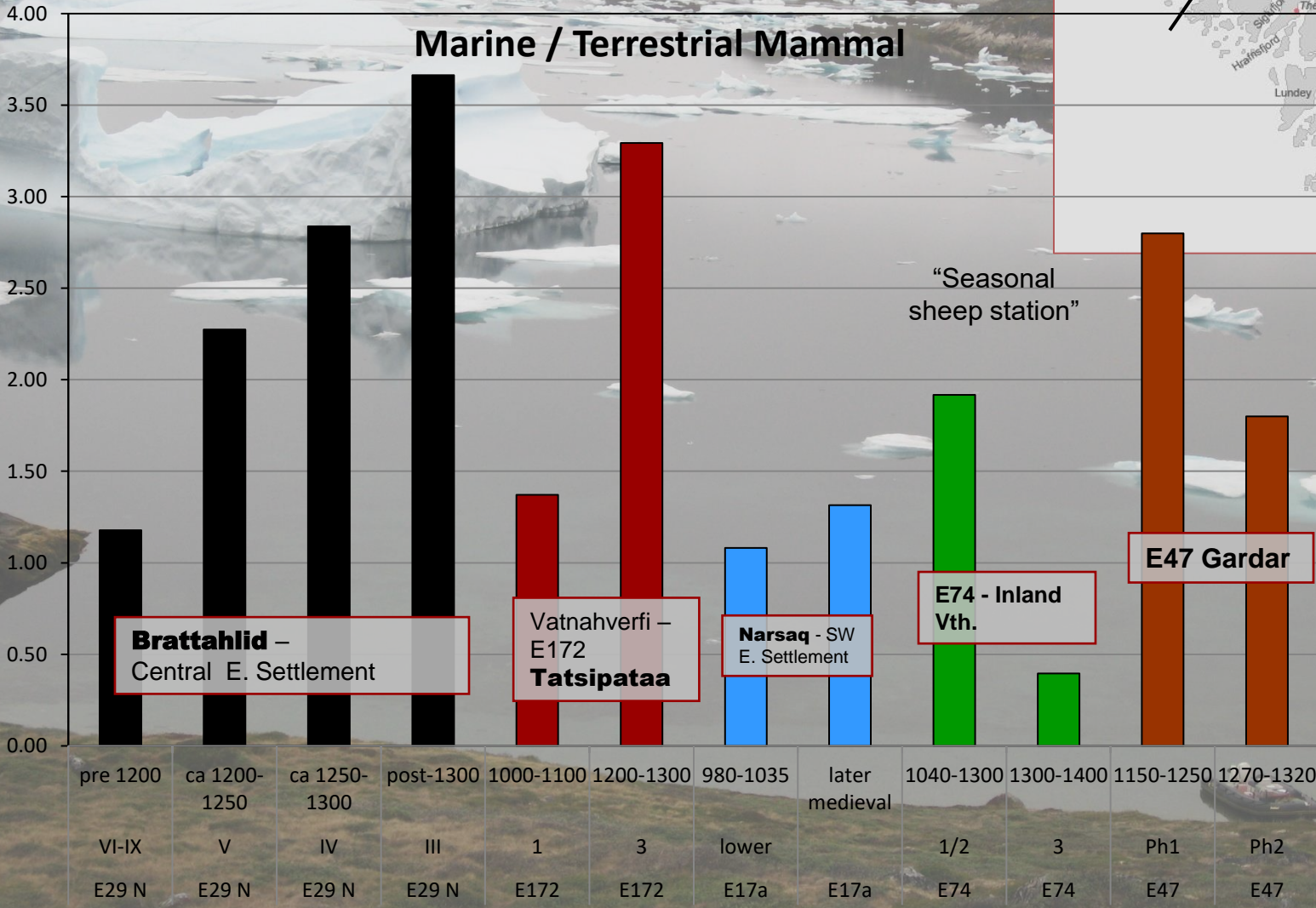
2011 sites
E3, E4, E171, E168

2012 Site
E47 Gardar

2016 –
E171 Tasislikuloq

Intensification of Migratory Seal Hunting

Konrad Smiarowski





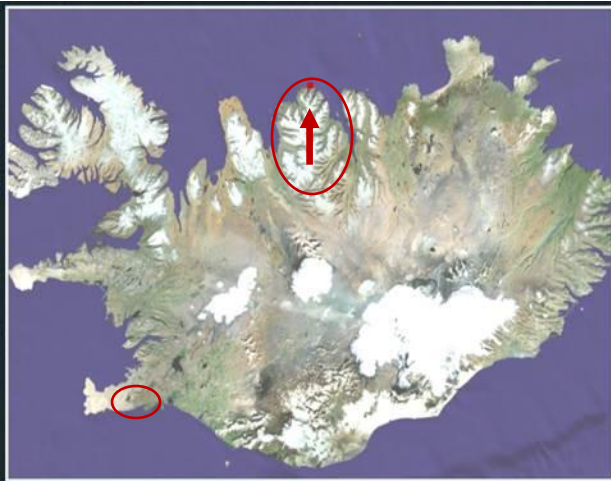
Gufuskálar Fishing c. 1400-1750



Dense deposits of fish and marine mammal bone dating to c. 1400-1500 eroding out of the Icelandic site of Gufuskálar.

Major changes in 17-18th c.

Frank Feeley CUNY doctoral project



Siglunes 2011-13 Coastal Erosion and Archaeology

Fishing Area



Siglunes Study Region

- ✚ Sites to be investigated
- ◆ Surveyed by Team,
- Surveyed by Team,
- ▲ Sampled for Midden Materials
- Surveyed by Team, Structural Excavation by Team

Harrison et al, forthcoming

Ruin B –
treasure trove
for
environmental
and fishery
history
research

divided into three distinct activity
phases:

AD 890–1000

AD 1104–1200

AD 1300–1400

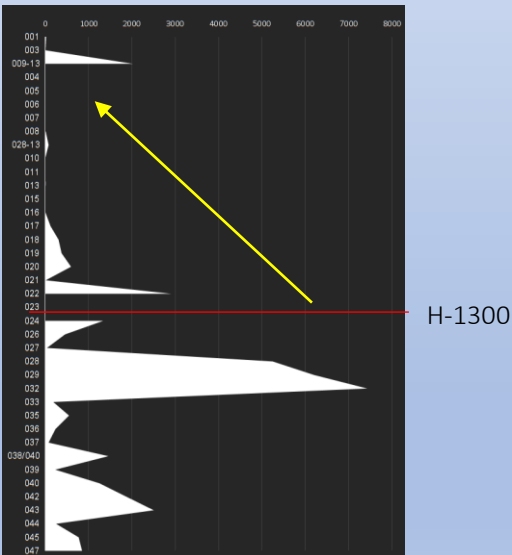


Celine Dupont-Hébert & Jim Woollett, U Laval Quebec NE Iceland : Svalbarð & Hjalmarvík

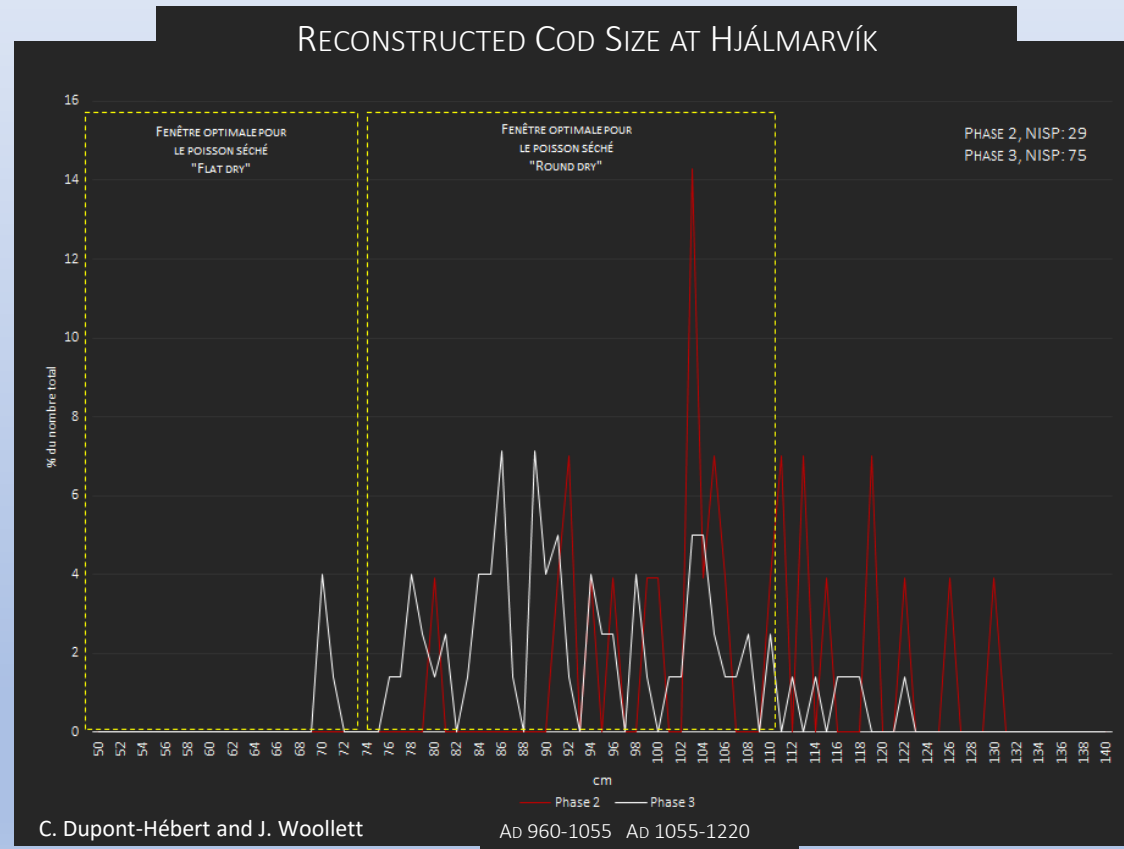


FISHING AT HJÁLMARVÍK

- DRY FISH PRODUCTION AND CONSUMPTION
- +SIZE DIVERSITY IN LANDED FISH
- DECLINE IN GADID ABUNDANCE OVER TIME AT HVK
- GROWTH GADID ABUNDANCE OVER TIME AT SVB (6%)



RECONSTRUCTED COD SIZE AT HJÁLMARVÍK



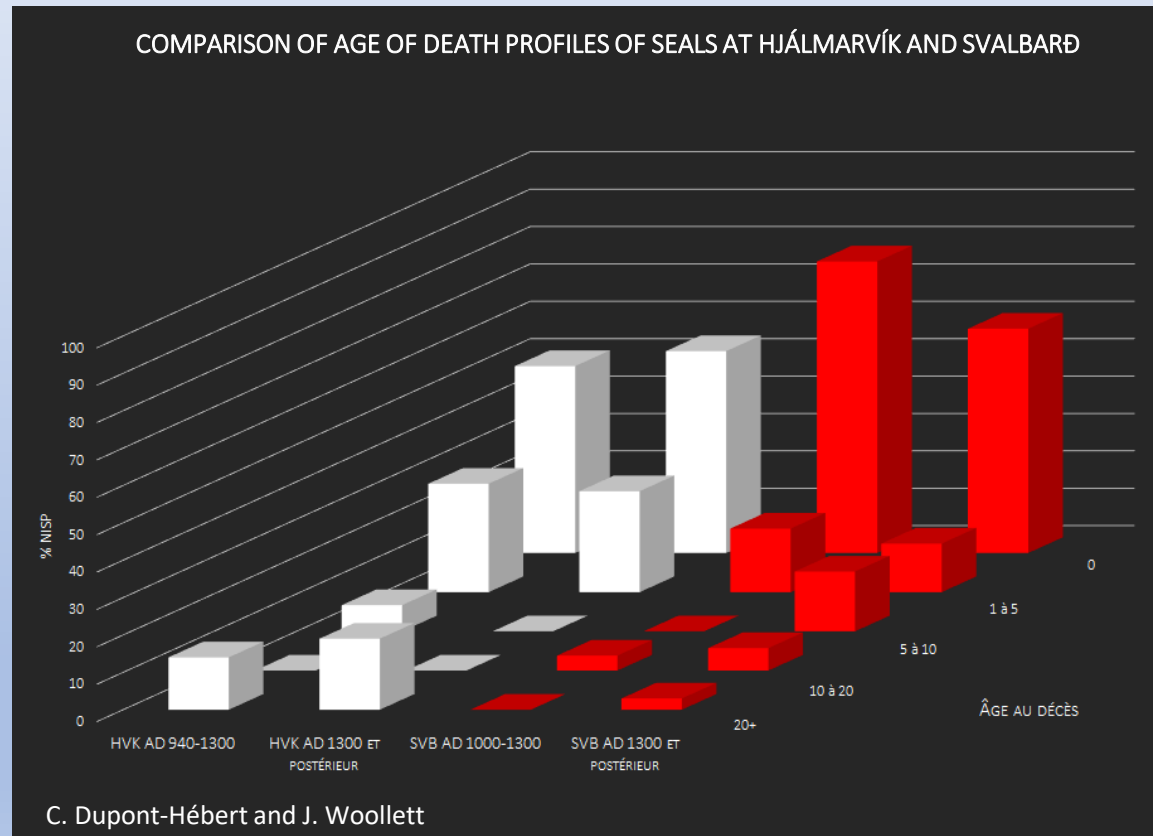
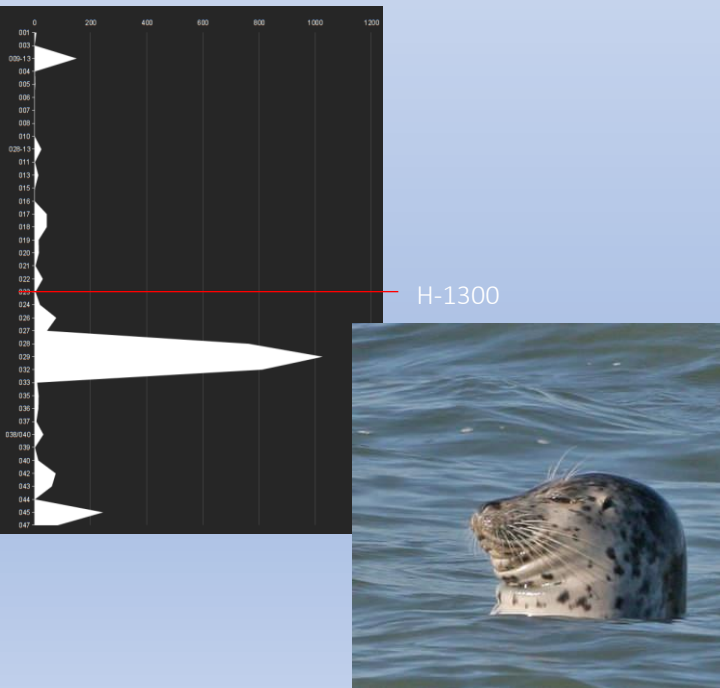
Celine Dupont-Hébert & Jim Woollett, U Laval Quebec NE Iceland : Svalbarð & Hjálmarvík



PAYSAGE ÉCONOMIQUE LOCAL

SEAL HUNTING AT HJÁLMARVÍK AND SVALBARÐ

- MAJORITY OF HUNTING IN SPRING (PUPPING AND HAUL-OUT SEASON)
- NÉO-NATAL SEALS MOST COMMON AT SVALBARÐ
- MORE DIVERSIFIED SEAL HUNTING AT HJÁLMARVÍK (AGE GROUP AND SEASON)





North Atlantic Encounters Program



- Work in progress but well started- UNESCO boost to the networking.
- Responds to urgent needs- massive loss of heritage and science due to climate change.
- Connects across scholarly disciplines- glaciology to archaeology to environmental humanities to arts for sustainability. “Sagas for Sustainability”!
- Creates multiple opportunities for “teachable moments” about global change, heritage, and connecting past to present and future
- Produces key data sets for resource managers and global change scenario building.
- Provides an intellectually valid and professionally stimulating framework uniting multiple projects- greater than the sum of the parts.
- JOIN US!

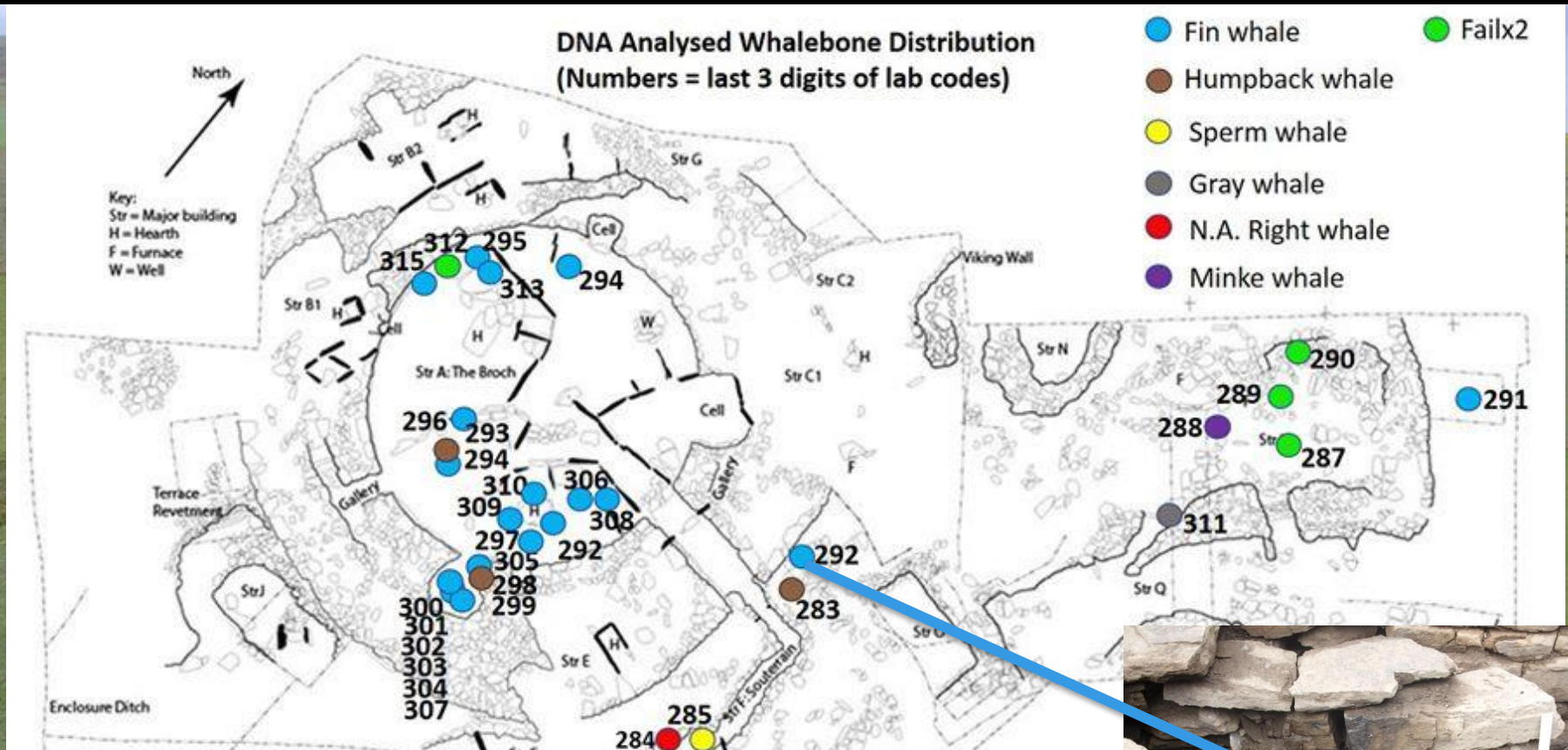


Contacts for more....

- Whale aDNA- Vicki Szabo
- DataARC- Rachel Opitz
- Bifrost Media- Steve Hartman
- Orkney – Steve Dockrill, Julie Bond, Ingrid Mainland, Jane Downes
- Outer Hebrides- George Hambrecht
- Greenland Alluitsoq- Cameron Turley & Aka Bendtsen
- Greenland Noorliit- Kirstine Møller
- Greenland Norse Zooarchaeology- Konrad Smiarowski
- Iceland Gufuskalar- Frank Feeley
- Iceland Siglunes- Ramona Harrison
- Iceland Svalbard- Jim Woollett and Celine Dupont-Hébert
- Network info and contact emails- Tom McGovern

Thomas.h.mcgovern@gmail.com

Identification and analysis of 33 bones at The Cairns included 20 bones likely from a single fin whale deposited across multiple contexts during the closure of the broch structure, including bones found in feasting and ritual deposits.



The presence of what is likely a single animal, spread across these varied contexts, links these deposits very closely in time, much more tightly, in fact, than is currently possible with radiocarbon dating alone, and allows excavators to closely connect several different contexts and stages within the finale of the broch

