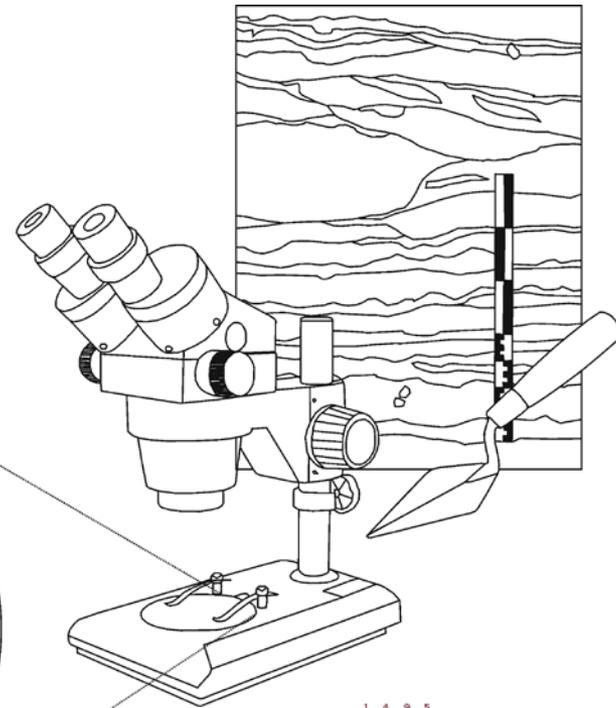
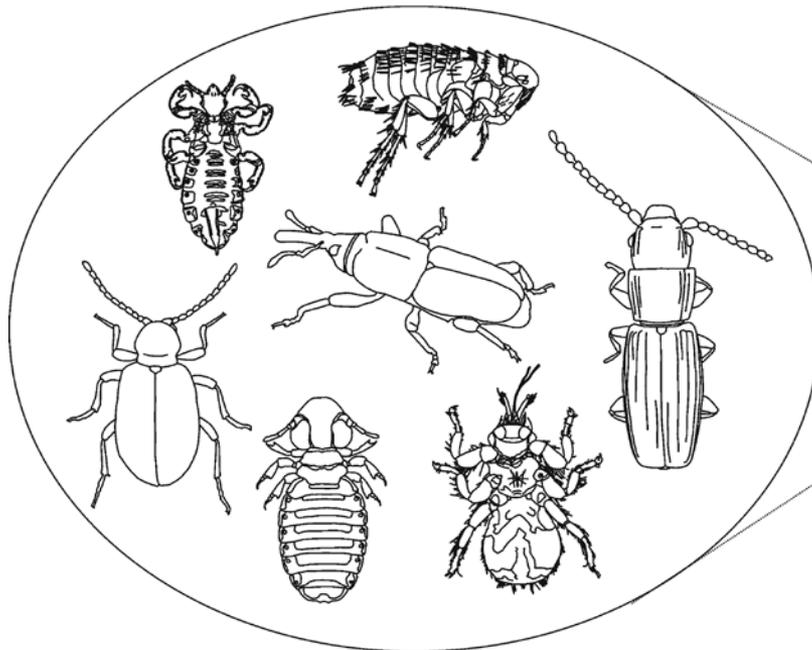


Archaeoentomology and the modernisation of life-ways in rural Iceland

Véronique Forbes

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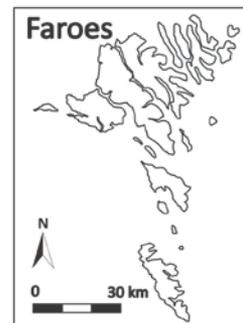
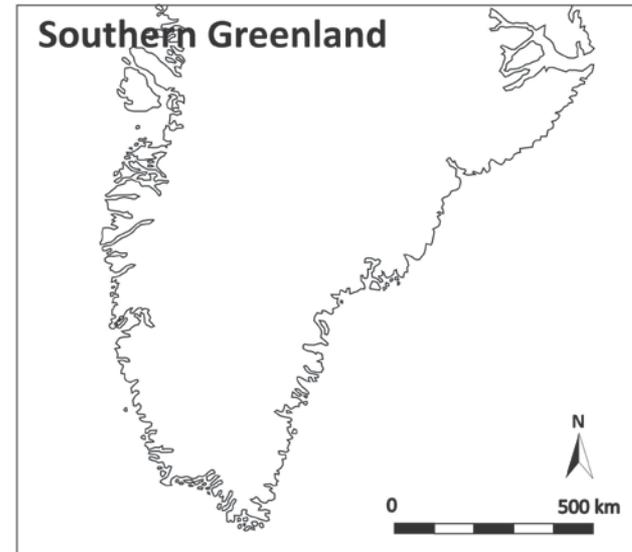
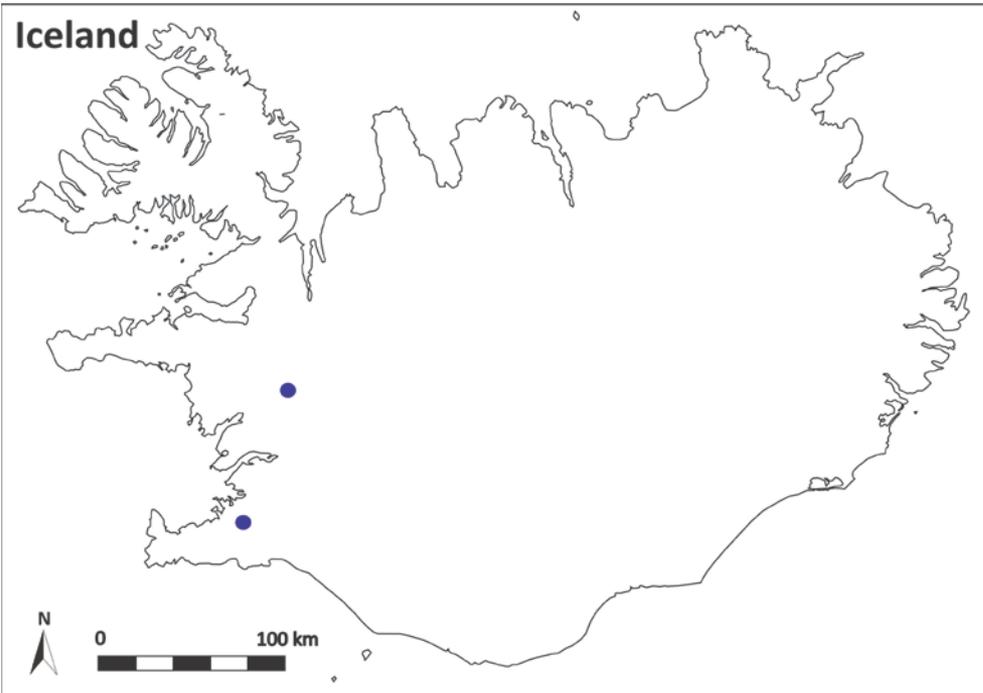


Archaeoentomology

The use of preserved insect remains in archaeological interpretations

SITES ANALYZED FOR INSECT REMAINS

- Viking Age (9-11th centuries AD)
- Medieval Period (12-15th centuries AD)
- Early Modern Period (16-18th centuries AD)
- Modern Period (19-20th centuries AD)



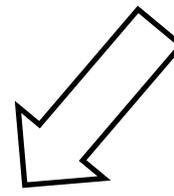
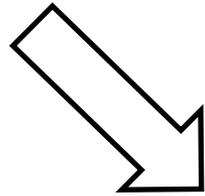
19th- and early 20th-century Iceland

- Profound political and economic changes
- In the countryside...
 - Improvements in agriculture, housing and sanitation;
 - Roads, bridges, and rapid long-distance sea-transport connect isolated farmsteads together and with the outside world.

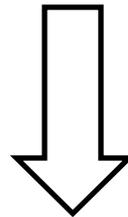
Research themes

IMPROVEMENT

GLOBALISATION



changes in the life-
ways of people



changes in the insect
faunas living in buildings

Hornbrekka



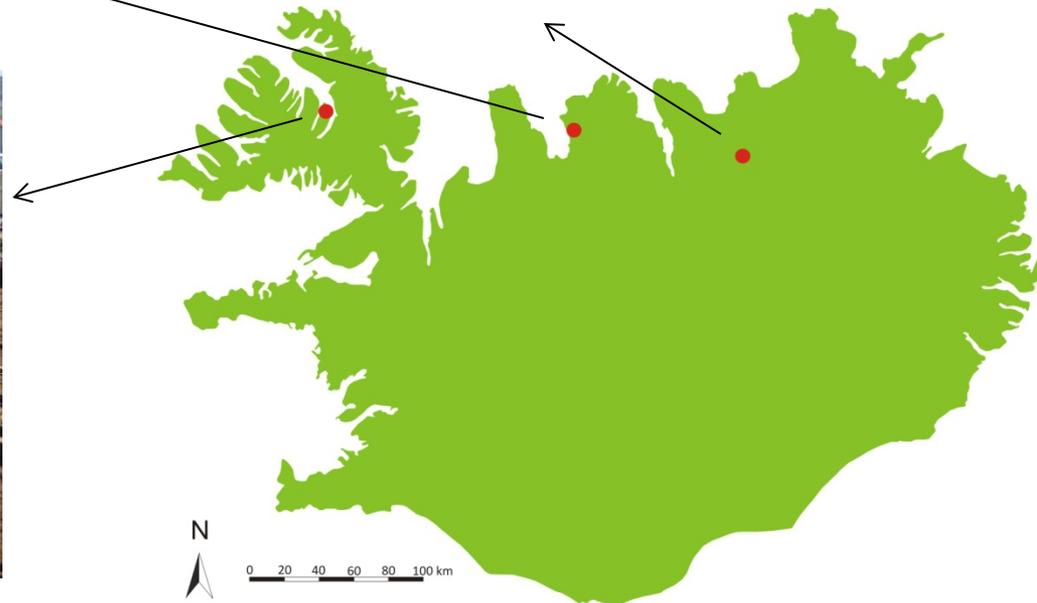
19th-20th-century sites

Þverá



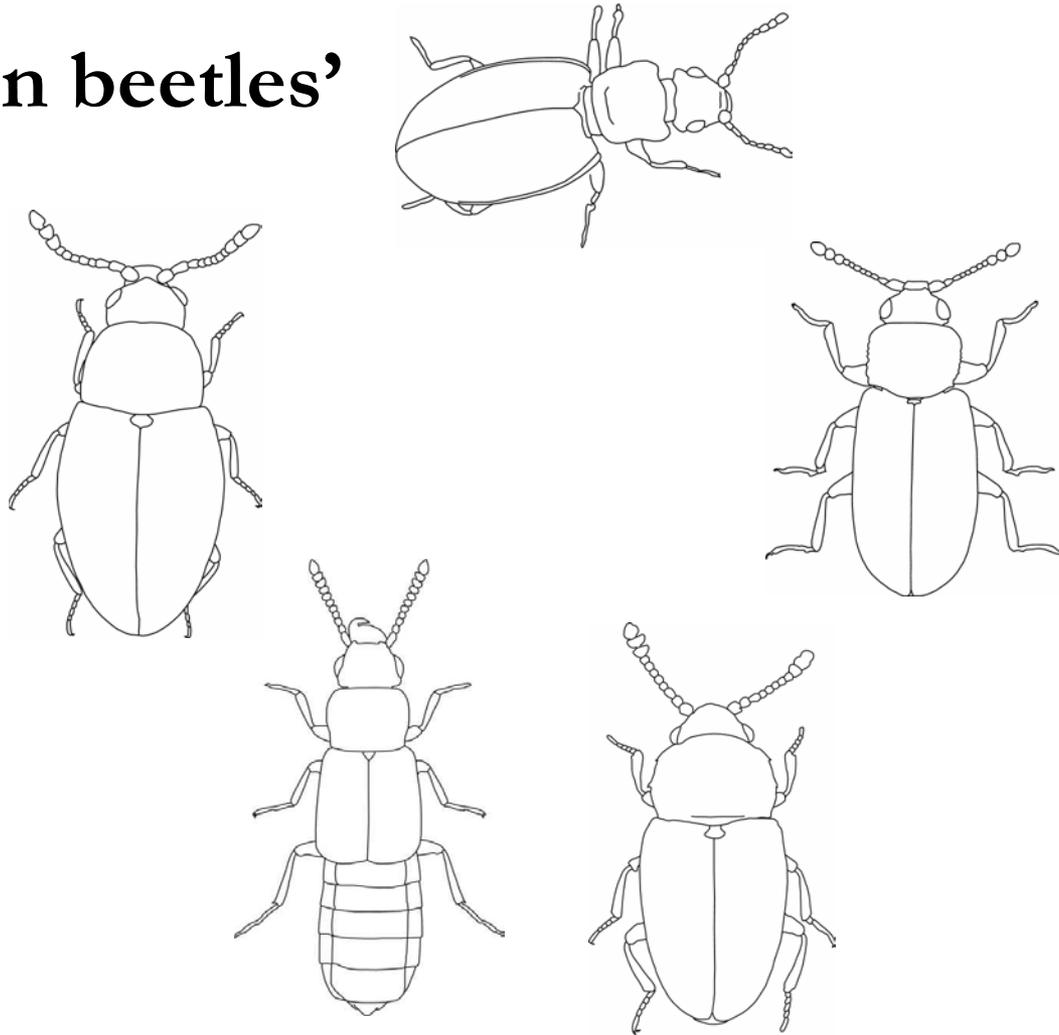
Photo: Karen Milek

Vatnsfjörður



Archaeoentomology and agricultural improvements

The 'barn beetles'



Archaeoentomology and agricultural improvements

➔ Changes in hay cultivation techniques

Widespread drainage
(c. 1920s according to historical sources)

Re-seeding fields with imported grasses
(c. 1940s according to historical sources)

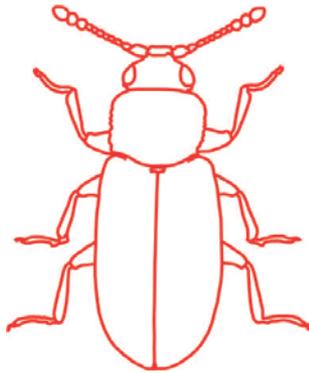
➔ Changes in the hay microflora

➔ Changes in the ‘barn beetles’

Archaeoentomology and agricultural improvements

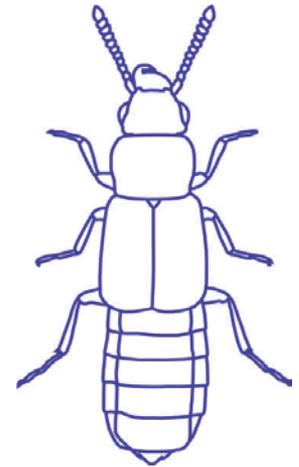
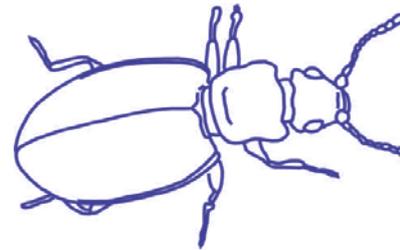
Viking Age to c. 1900-1940

Assemblages dominated by *Corticaria elongata*



Modern times (from c. 1900-1940 to the present)

Assemblages dominated by *Latridius minutus* (grp.) and *Xylodromus concinnus*



Changes in the barn beetles were first observed in Buckland et al. (1991)

'Faunal Change or Taphonomic Problem? A Comparison of Modern and Fossil Insect Faunas from Southeast Iceland' In Maizels & Caseldine (eds.), *Environmental Change in Iceland: Past and Present*, pp. 127-146.

Archaeoentomology and agricultural improvements

Historical evidence suggests foreign cattle were imported to Iceland in the first half of the 19th century to ‘improve’ the Icelandic breed.

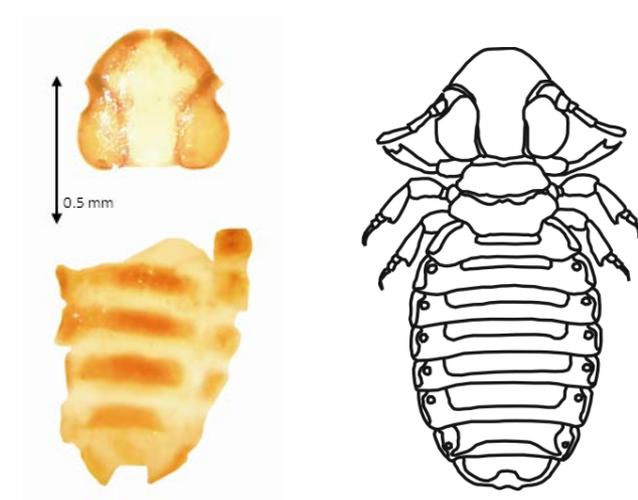
Zooarchaeological evidence from 17th-18th century Skálholt for agricultural experiments with cattle breeds (Hambrecht 2006)



Archaeoentomology and agricultural improvements

Finds from late 19th- and early 20th-century Hornbrekka and Þverá are the earliest archaeological records in Iceland to date.

The cattle-biting louse



Head and lower abdomen of
Bovicola bovis

Improvements in hygiene and sanitation

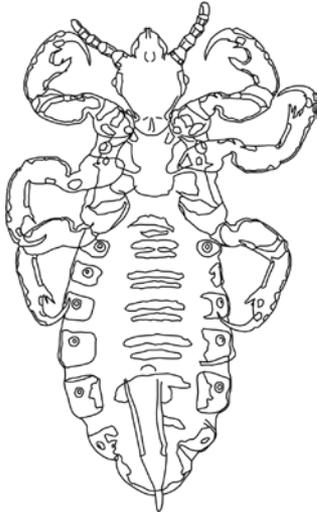
- 19th-century ethnographic and travellers' accounts suggest:
 - human lice and fleas common.
 - poor sanitary conditions in houses.
- 'Advice literature': manuals with recommendations concerning matters of sanitation and hygiene.

ICELAND:
PERFORMED
BY ORDER OF HIS DANISH MAJESTY.
CONTAINING
OBSERVATIONS ON THE MANNERS AND CUSTOMS OF THE INHABITANTS, A DESCRIPTION OF THE LAKES, RIVERS, GLACIERS, HOT-SPRINGS, AND VOLCANOS; OF THE VARIOUS KINDS OF EARTHS, STONES, FOSSILS, AND PETRIFICATIONS; AS WELL AS OF THE ANIMALS, INSECTS, FISHES, &c.
BY
Messrs. OLAFSEN & POVELSEN.
TRANSLATED FROM THE DANISH.
LONDON:
PRINTED FOR RICHARD PHILLIPS, 6, BRIDGE-STREET,
BLACKFRIARS,
By Bernard & Saltzer, Water Lane, Fleet Street.
1805.

Nokkur orð um hreinlæti.
Gefið út á kosnað Countess A. de Noailles.
KAUPMANNAHÖFN.
I PRENTSMÍÐJU LOUIS KLEINS.
1867.

Improvements in hygiene and sanitation

- Human lice recovered from the three 19th-20th-century sites

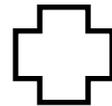


Human louse
Pediculus humanus

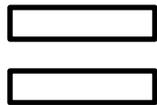
- Human fleas recovered from early 20th-century floors at Hornbrekka and Þverá
- According to literature, the human flea was eradicated ca. 1950.

Improvements in hygiene and sanitation

Geoarchaeological evidence for cleaning and floor maintenance
(Milek 2012)



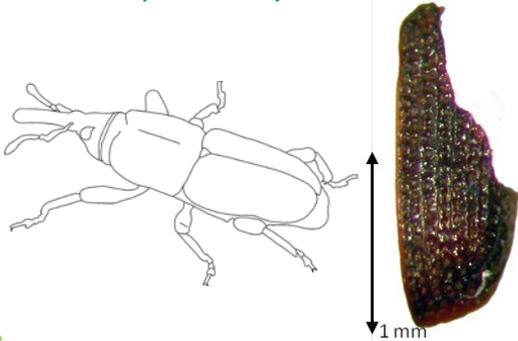
Near absence of beetles associated with fouler conditions and materials



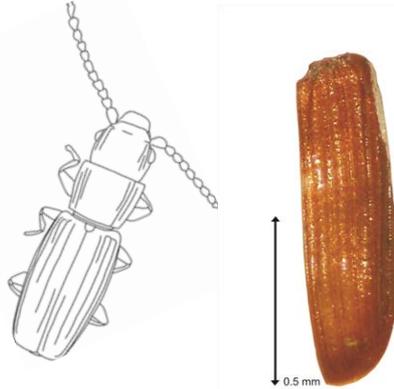
Efforts were being made from the late 19th century to keep the living environments comfortable.

Globalised trade networks

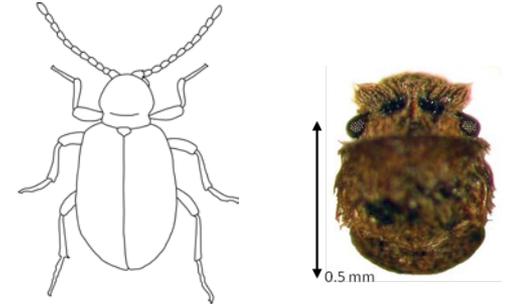
rice/maize weevil
Sitophilus oryzae/zeamais



Cryptolestes sp.



Australian spider beetle
Ptinus tectus



Conclusion

Insect faunas from later archaeological sites CAN help clarify the timing and processes by which:

- modern agricultural techniques were introduced;
- Icelanders recognised the importance of sanitation;
- individual sites began tapping into international trade networks.

Thank you!

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