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# ICEMAP - An interactive storytelling experience based on forefront science

Maja Sojtaric

Sojtaric, Maja (1), Patton, Henry (1), Holmø, Mona (2), Hubbard, Alun L.(1),  
1) CAGE, Centre for Arctic Gas Hydrate, Environment and Climate. UiT The Arctic  
University of Norway.

2) Nordnorsk vitensenter Tromsø ( Science centre, Tromsø)

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[cage.uit.no](http://cage.uit.no)



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Arctic Gas Hydrate,  
Environment and Climate

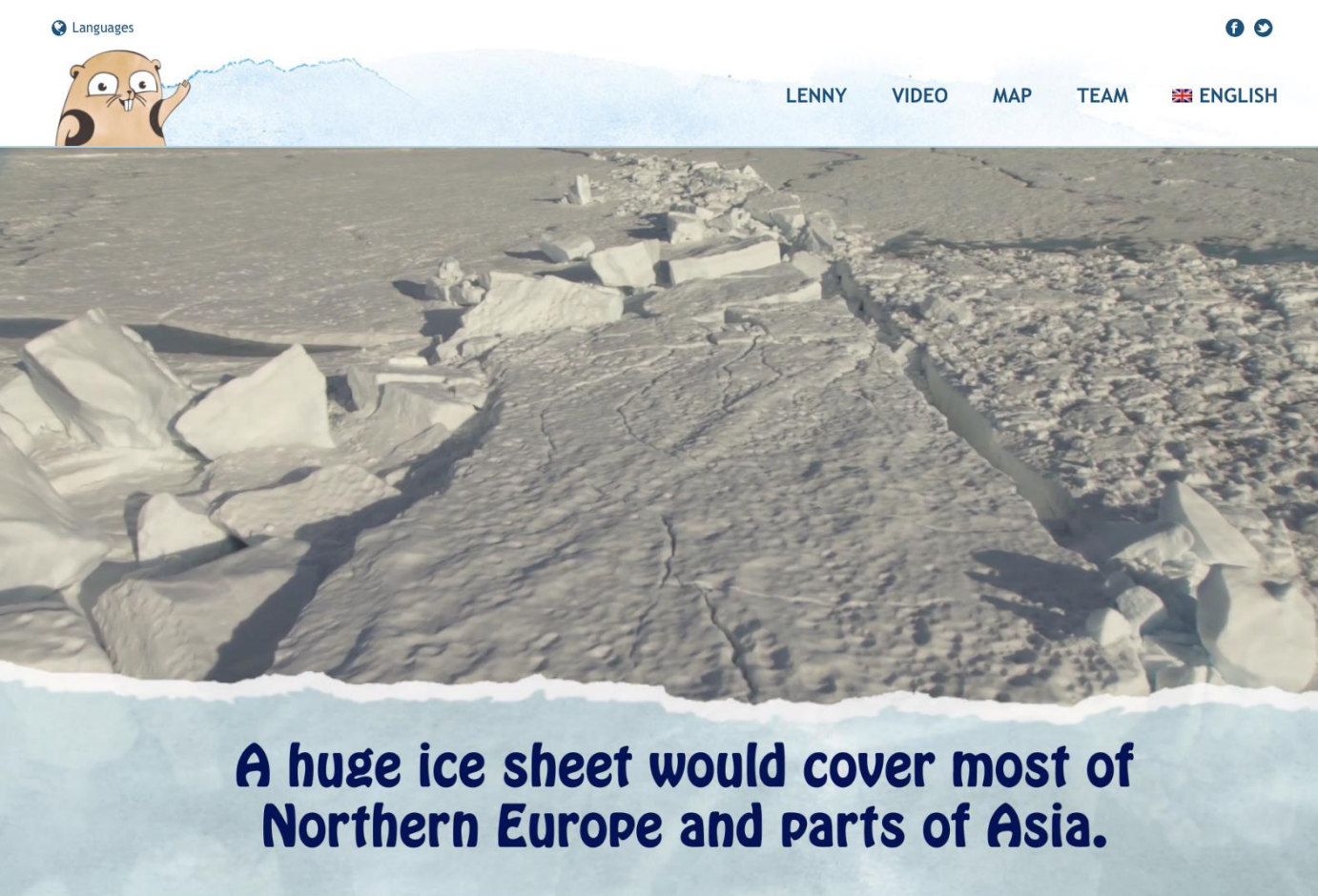


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# ICEMAP is an interactive learning tool. It is a map based, storytelling experience about the last ice sheet that covered Northern Europe and Asia.

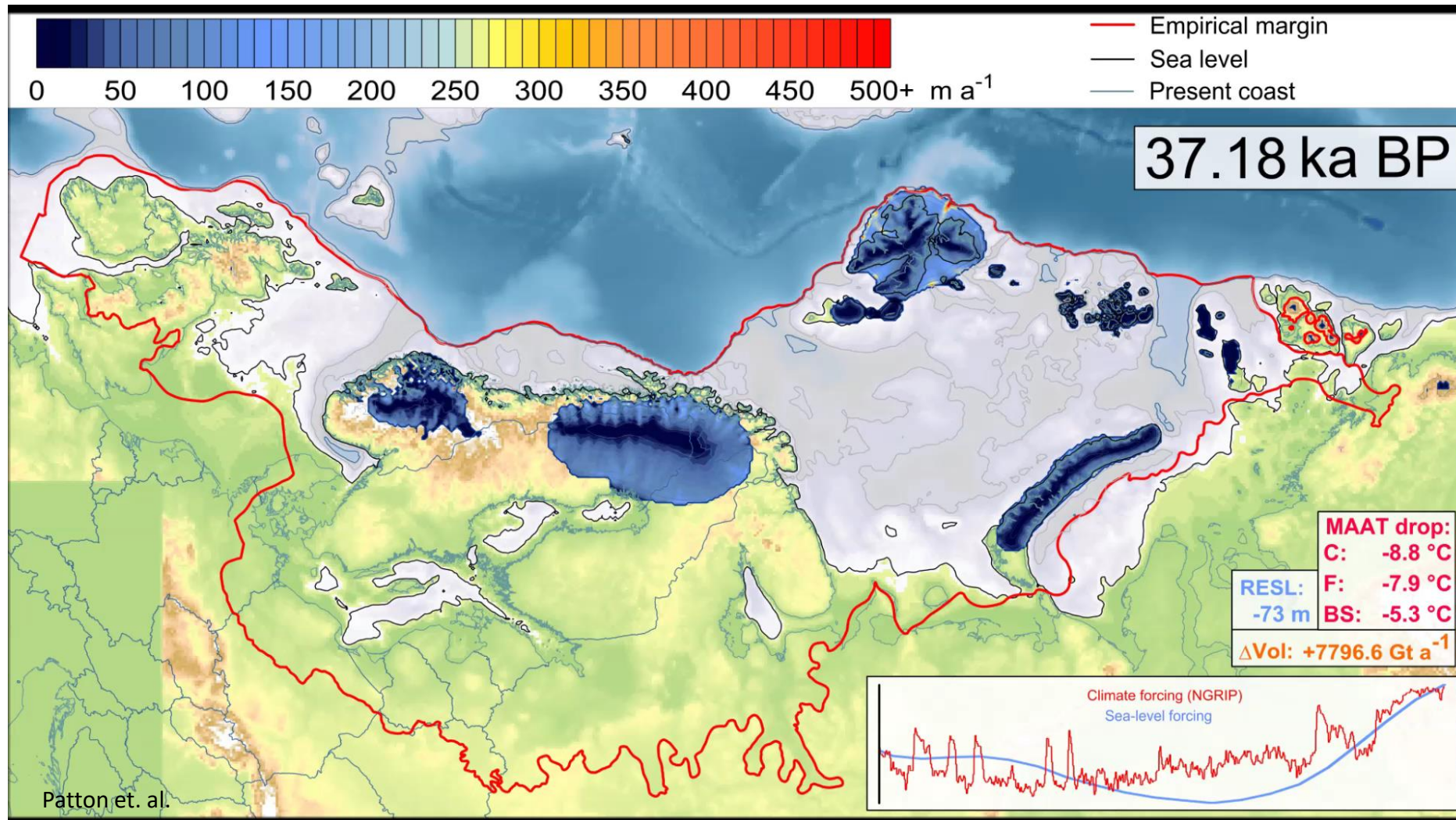
- [Webpage: https://icemap.no/en/](https://icemap.no/en/)



- Interactive installation



# Reconstructing the Eurasian Ice Sheet: the scientific approach



**We wanted to show the power this kind of ice mass yields and unleashes as the climate changes.**

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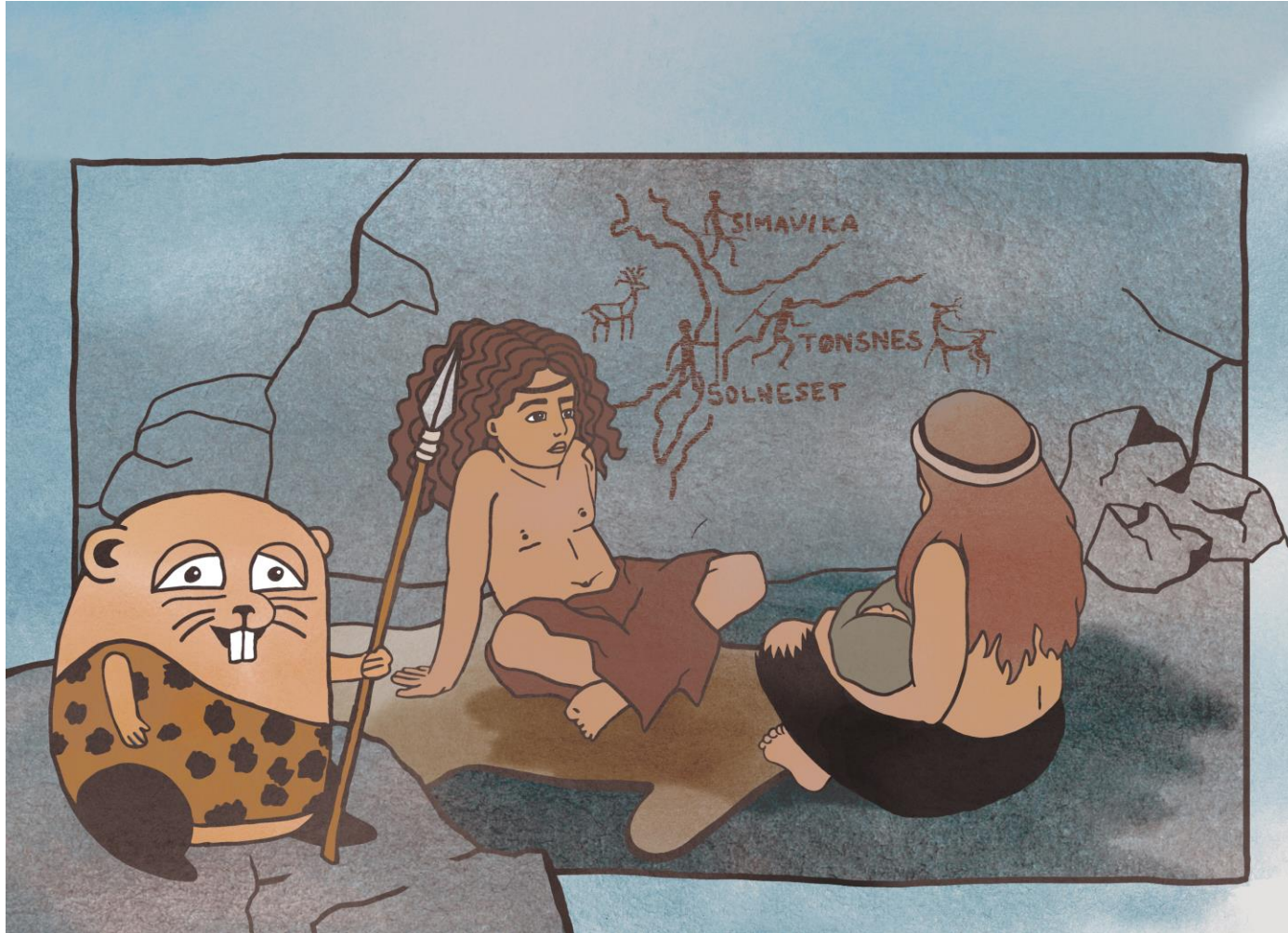
**There have been many glaciations in the history of our planet, but only one coincides with the arrival of modern humans.**

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What kind of Europe would meet early modern humans migrating northward at the end of the last ice age?

# Perspective: Humans then were few and at the mercy of the elements.



**We adjusted the scientific visualisations so that they could be used in school and interpreted together with teachers.**

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# The storyline illustrations supplement the map visualisations with chronologically organized fun facts.

## 22,500 YEARS AGO:

During the Last Glacial Maximum, it would have been possible to ski across this massive ice sheet continuously for over 4500 km: from the far Atlantic isles of western Britain to deepest Arctic Siberia.





**They are designed in such a way that they can be used in school projects to understand major environmental impacts such as sea level changes.**

**16,000  
YEARS AGO:**

Due to lower sea levels, some of today's seabed became habitable – particularly an area in the North Sea known as Doggerland. Also, parts of the Irish Sea became a large forest. People lived there, hunting and foraging for shell fish, until these areas were eventually flooded under rising seas.



**ICEMAP also invites pupils to reflect upon human impact on environment and discuss the context.**

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## **FUTURE**

**There are only two great ice sheets left on the planet today – Antarctica and Greenland.**

**But they are also now in retreat due to climate and ocean warming over the past century.**

**Enhanced global temperatures and melting of ice across the Arctic, Antarctic and mountain regions is causing untold damage to the Earth's most sensitive environments and habitats.**



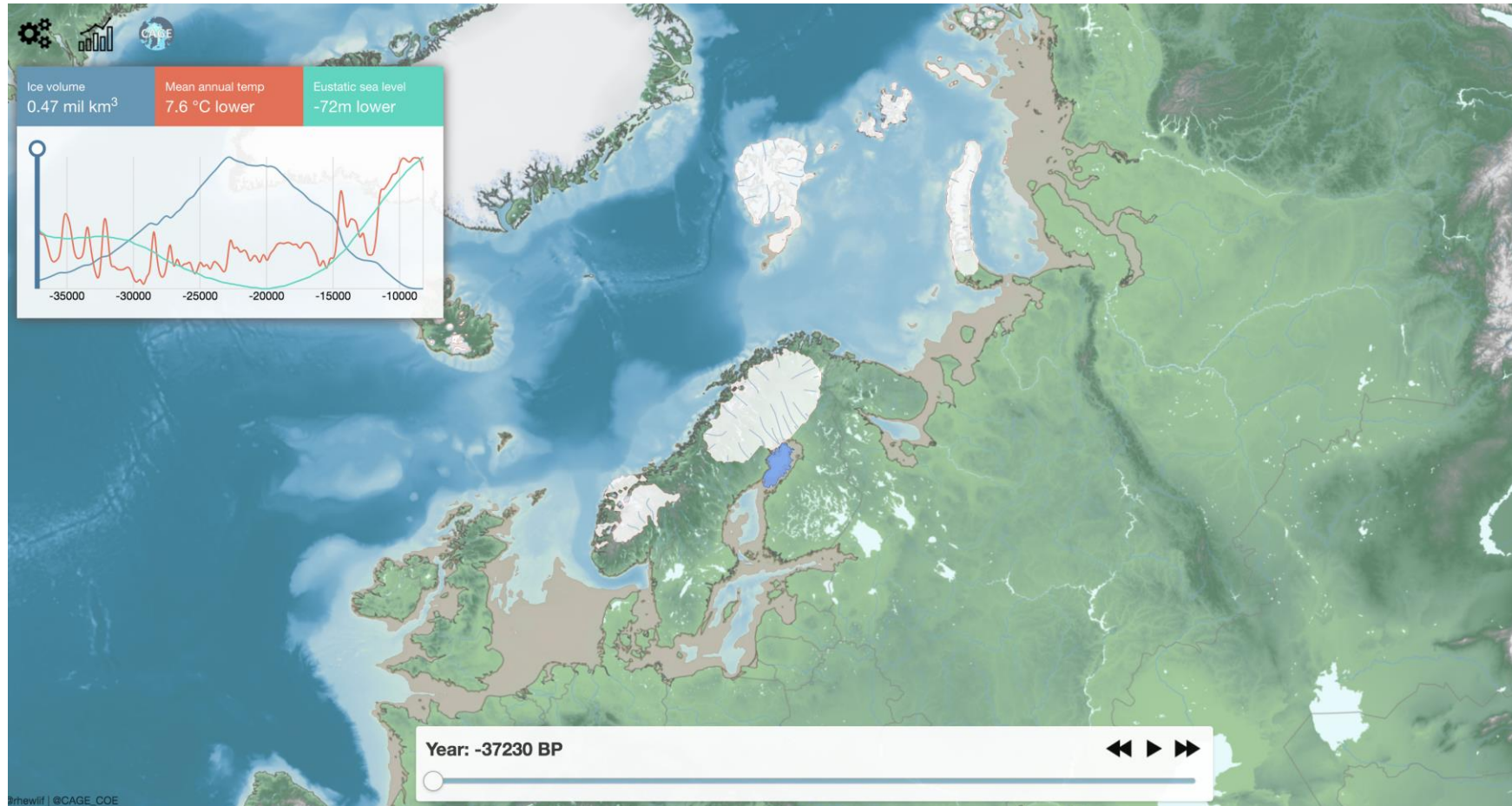
## **CONSEQUENCES**

**Human emission of greenhouse gases through fossil fuel burning is dramatically warming the Earth's climate.**

**These changes will continue to get worse if we don't find ways to limit our emissions and impact.**

**Sea levels could rise by 10s of meters as the polar ice sheets retreat, flooding some of the most populated coastal areas and cities on the planet.**

# ICEMAP+: Interactive map for advanced learners.



<http://icemap.rhewlif.xyz/>

**Patton, H., et.al. (2017),** Deglaciation of Eurasian Ice Sheet Complex, *Quaternary Science Reviews*.

**Patton, H. Et.al, (2016)** The build-up, configuration, and dynamical sensitivity of the Eurasian ice-sheet complex to Late Weichselian climatic and oceanic forcing. *Quaternary Science Reviews*.

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