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Companion Document for "Glaciology, Race, and Masculinity"

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Keywords: glaciology, masculinity, feminism, Indigenous peoples, scientific racism
Location: United States, global
People: Louis Agassiz, Jan Carstenszoon
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This companion guide accompanies the slides for "Glaciology, Race, and Masculinity." For each slide, we provide a summary of content and a list of sources. For accessibility purposes, we provide alternative text for images.

Additional Context for Slides

Slide 1 **|** Glaciology, Race and Masculinity

This title slide contains a list of tags for the work, which are reproduced below.

Content: glaciology, masculinity, feminism, Indigenous peoples, scientific racism
Location: United States, global
People: Louis Agassiz, Jan Carstenszoon

Slide 2 **|** Female exclusion in glaciology

This slide contains a timeline of events showing that the Western university system existed for hundreds of years before women were included. It includes the founding of Oxford (1100s), the founding of the Royal Society of London (1660), Oxford's opening to women (1920), and the

first woman elected to the Royal Society (1945). The slide also contains information about women in glaciological field work and the role of outdoorsmanship in the culture of glaciology.

Sources
[1]Women in Glaciology, a Historical Perspective (Hulbe et al., 2010)
[2]For more info on gender and the outdoors, REI provides a decent place to start: https://www.rei.com/blog/hike/closing-gender-gap-great-outdoors
[3]Glaciers, gender, and science: A feminist glaciology framework for global environmental change research (Carey et al., 2016)

***Slide 3* | Glacial Hazard and Indigenous Peoples**

This slide contains a brief summary of the disproportionate impacts of ice sheet mass loss and glacier melting on indigenous peoples. The hazards discussed include water scarcity, glacial lake outburst floods, and sea level rise. Each is accompanied by a specific example.

The slide contains two figures. The first shows retreat of the Qori Kallis glacier in Peru using two images from 1978 and 2011 (courtesy of NASA Global Climate Change). It shows significant retreat of the glacier terminus and the formation of a sizeable proglacial lake.

The second figure shows the current shoreline of Lenox Island, home to the Mi'kmaq people. It also shows how much the island's area would be reduced by 3 meters of sea level rise.

Sources
[1]Glacier recession and water resources in Peru's Cordillera Blanca (Baraer et al., 2012)
[2]Climate change and the global pattern of moraine-dammed glacial lake outburst floods (Harrison et al., 2017)
[3]Living and dying with glaciers: people's historical vulnerability to avalanches and outburst floods in Peru (Carey, 2005)
[4]*https://climate.org/rising-sea-levels-and-indigenous-communities/*
[5]A high-accuracy map of global terrain elevations (Yamazaki et al., 2017)

***Slide 4* | Indigenous Peoples in Glaciology**

This slide contains a summary of factors that presently and historically have prevented indigenous peoples from being represented in glaciology. The factors discussed include access to education, the focus on earth-scale processes in glaciological research, and the lack of a system for facilitating interaction between glaciologists and indigenous peoples.

Sources
[1]https://www.un.org/development/desa/indigenouspeoples/mandated-areas1/education.html

***Slide 5* | Indigenous perspectives improve glaciology**

This slide contains discussion of how indigenous knowledge improves the quality of glaciological science. The slide discusses the Sámi people, an indigenous population in parts of Norway, Finland, and Sweden. Sámi people and their observations provide valuable information that improves understanding of ice and snow dynamics and benefits local communities.

The slide contains an image of a Sámi reindeer herder with a herd of reindeer on a field of snow.

Sources
[1]Sámi traditional ecological knowledge as a guide to science: Snow, ice and reindeer pasture facing climate change (Riseth et al., 2011)

***Slide 6* | Glaciology and Race: Louis Agassiz**

This slide contains a summary of Louis Agassiz, a famous glaciologist and proponent of scientific racism from the mid 1800s. The slide gives a summary of his professional career, his views on race, and members of Agassiz' academic family tree who spread his racist beliefs throughout American academia.

The slide contains one figure, reproduced from the 1854 book *Types of Mankind*. The figure, by Agassiz, shows drawings of the skulls of four people of different races. Below each skull is a column of animal drawings. The figure is meant to convince the viewer that the morphological differences between species like giraffes and buffalo are equivalent to the differences in human skull shape. The figure is an egregious example of scientific racism.

Sources
[1]https://en.wikipedia.org/wiki/Louis_Agassiz
[2]The Roots of the I.Q. Debate: Eugenics and Social Control (Quigley, 1995)
[3]https://scalar.usc.edu/works/measuring-prejudice/one-race-or-several-species

***Slide 7* | Naming of Glaciers and Glacial Landforms**

This slide contains information about renaming in glaciology. Geographic locations relevant to glaciology are often named after people with a legacy of racism and imperialism. Renaming may be a way to stop perpetuating the legacy of racists, though care must be taken to avoid masking information about racism in geosciences. The slide discusses the Carztenz glacier in Indonesia, named for Jan Carstenz, an imperialist hired by the Dutch East India Company. It also provides a truncated list of the many things named after Louis Agassiz.

The slide contains two figures. The first is a photograph of the Carstenz Glacier. The second is a screenshot from the EGU website, showing their statement on the renaming of the Louis Agassiz Award.

Sources

[1]https://www.kb.nl/sites/default/files/docs/carstens-translation.pdf
[2]https://www.flickr.com/photos/46179870@N04/14122786124
[3]https://www.egu.eu/awards-medals/julia-and-johannes-weertman/