



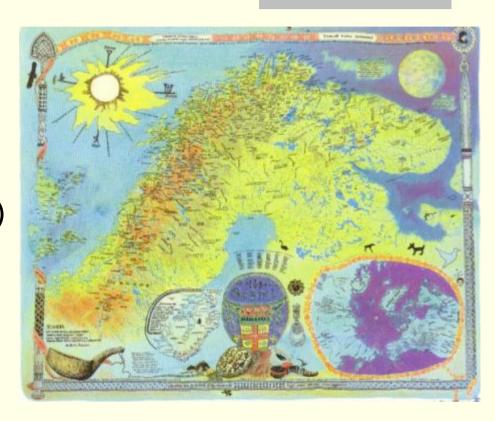
How Moskaluokta became Lakselvbukt (Chang of identity, language and landuse)

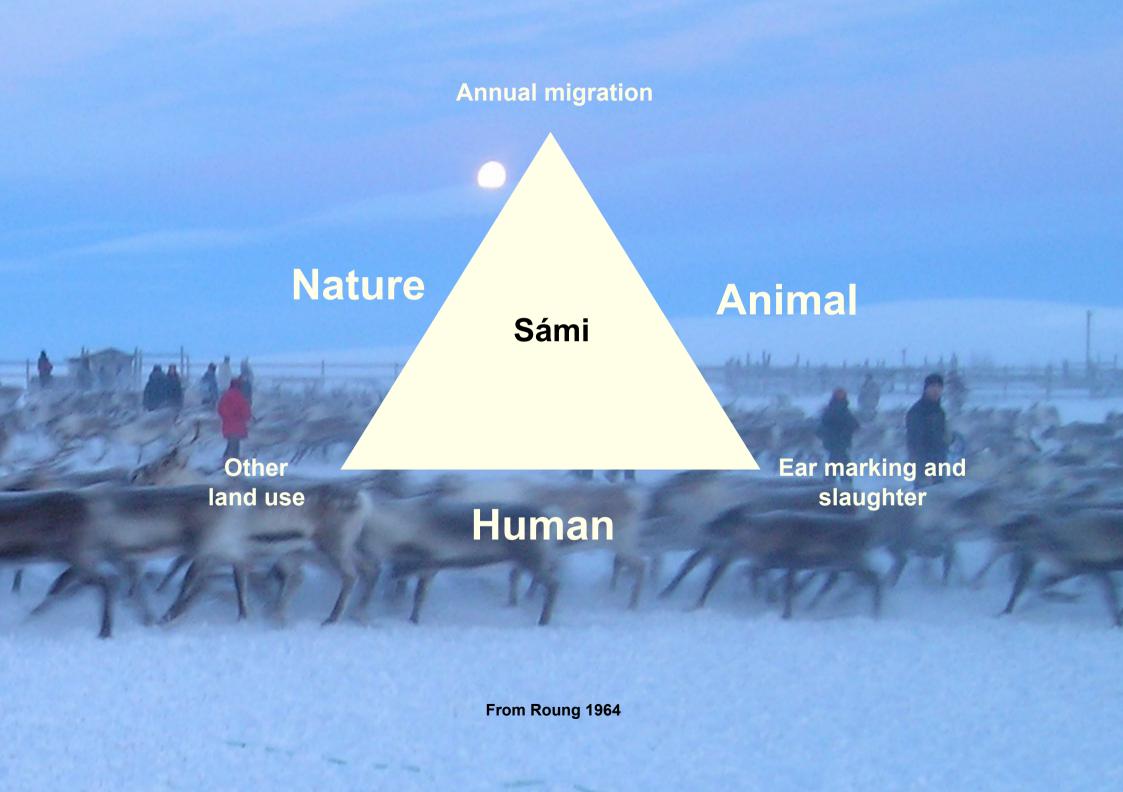
### Reindeer herding people



#### Scandinavia

- Non reindeer herding Sámi are in majority
- Norway 40 000 (3000)
- Sweden 20 000 (5000)
- Finland 7 000 (2500)
- Russia 3 000





## Traditional knowledge

Survival and meaning (value)

Understanding nature and

animals

Language



#### Traditional knowledge and science

- 1. Snow and Ice project
  - Research
- 2. Dievát project
  - Sámi community
- 3. Sámi place names
  - Sámi language center









## Snow and ice project (Riseth et.al. 2010)

Elders' observations	Relevance	Meteorological records	Indications of agreement	Research challenge
Rapid spring thaws; problems when moving to summer grazing areas in 1938–40.	Snow cover necessary for transporting people by reindeer and sledge (before) or snowmobile (nowadays).	No significant change in date of spring thaw, but increasing snow depth and warmer springs make rapid thaw likely.	Positive indications	Check climate records
free during calving.	More calving land options: Increased calving success. Can increase the need to guard animals	Snow-depth records clearly show pre-1940 periods with less snow depth than now. These conditions would lead to bare areas observed in the lowlands while increased recent snow depth (apart from after 1997) would explain the necessity for reindeer to find new passes in the mountains.*	Full agreement	-
Snow-covered areas/patches persist longer into the summer in high mountain areas.	Escape of mosquito harassment on sunny days. Snow patches provide fresh summer grazing. Optional use for calf marking.	No significant change in the date of lowland thaw due to interaction of deeper snow and higher air temperatures. Patches of deeper snow in shaded, cooler locations in the mountains may be explained by greater persistence of patches of deeper snow.	Positive indications	A record of patch nivation processes, wind strength and direction exists, but needs to be analysed.
5 Snow patches not as crusty as before.	Obstructs the movement of calves that can be hurt by stones under the snow.	No independent records	No records	Measurements should start.
6 Before WW II (1930s), late September and early October were colder.	Freezing hands when milking females. Shorter milking season.	Air temperature measurements at Abisko confirm particularly low temperatures in Sept., Oct. and Nov. in the 1920s and 1930s compared with the present day.	Full agreement	-
7 Frozen mires with clear, slippery ice during the rutting season (about 3 weeks, normally starting at the end of September) 1944–47.	Remembered as bulls could fight on the mires. Usual milking places slippery and unusable.	No direct observations of freezing of mire surfaces during the rutting season. Evidence of permafrost thaw since 1978 in 9 mires near Abisko (Åkerman and Johansson, 2008).	Positive indications	Analysis of existing data required together with downscaling of climate for a wide area (in progress).

### Dievát project

- Sámi governance
- Preserving nature
- Transmitting knowledge to youth



### Sámi place names

- Historical descriptions of nature
- Terminology adapted to Arctic nature use
- Sámi Identity



#### Collecting Sámi place names

- Focus on costal areas (Lakselvbukt Moskaluokta)
- Archive material
- Talking to elders











#### Challenges

- We are loosing "the elders" and their knowledge
- Non reindeer herding Sámi culture
- Sámi perspective on monitoring changes
- Traditional knowledge as base for adaptation to climate change
- Problems bigger than global warming, more immediate and more important to look at

# Thank you for you interest

