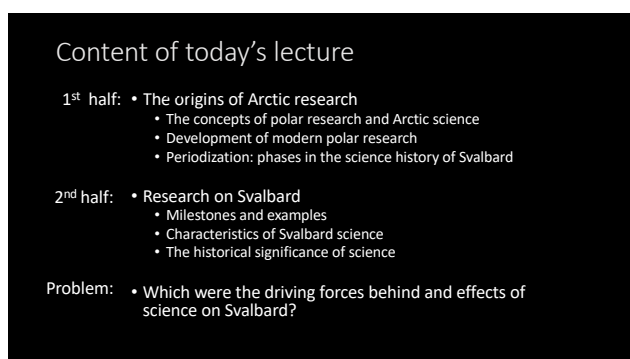


1



2



3

What is polar research?

- 'Exploration' vs. 'research' – same-same or different things?
- A geographical, not a disciplinary definition
- Polar research was/is motivated by more than pure curiosity and desire for true knowledge
 - Economic interests
 - Political and strategic interests
 - Individual fame and national prestige
- Polar research was/is typically field based, multidisciplinary, international – and very expensive

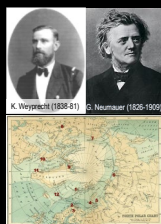


When did polar research become "scientific"?

4

Karl Weyprecht's polar program

- K. Weyprecht – Arctic hero and more
- Polar research must concentrate on solving nature's riddles instead of competing for international "honour"
- Pure geographical exploration must step back in favour of "scientific objectives"
- Single scientific studies must be replaced by parallel observations through a whole year. Requires international cooperation



Result: The International Polar Year 1882-83

5

Phases in Svalbard research

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Barentsz' discovery • Mapping by whalers • Accumulation of geographical knowledge | <ul style="list-style-type: none"> • Age of reason and natural science • The race for the North Pole | <ul style="list-style-type: none"> • Svalbard as field of research • "The golden age" |
|---|--|---|



6

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Phases in Svalbard research

- Norway joins in
- Science and land claim
- Crisis and war

STÖTTNORSK

ARKTISK FORSKNING

- "Big science" on Svalbard
- The environmental challenge
- An international research platform

7

15 minutes break

8

Some milestones of science history

1700175018001850190019502000

Martens1671

Phipps1773

Chichagov1764-66

Kaibatsu1827

"Recherche"1838-39

Sabine1823

Nordenskiöld1864, '68, '72-73

Art of Meridian1898-1902

Polar Year1882-83

Torell1861

NSIU1928

ESRO1967-74

EISCAT1996

IGY1957-58

IPY2007-08

9

A changing scientific profile

- 18th and 19th century “natural history”; gradual specialization
- Mapping: a foundation for science
- Research interests and profiles
- Resource orientation: geology, oceanography and marine research
- Politicised research? Science as an instrument
- Environmental research and “big science”
- 21st century: Climate change



10

Summing up: Historical significance

- Increased knowledge about Svalbard – also among the general public
- Fundamental scientific value: understanding glaciation, aurora, climate, evolution, adaptation ...
- Science stimulated the development of tourism – and vice versa
- Geological research: a precondition for and a cause of industrialization
- Research and education are important factors in Svalbard's economy
- Science has played a political rôle – and still does



11

End of 5th lecture
(Don't forget the exercise)



14
