

Closing the gender disparity crevasse in glaciology

A perspective by Hester Jiskoot



A SHORT EUROPEAN-CENTRED HISTORY OF POLAR EXPLORATION

770 Irish Monks reach Iceland
 >800 Vikings settle on Iceland Aud the 'deep-minded' important settler
 982 Vikings settle on Greenland Freydis Eiriksdottir (Leif's Sis)/Gudrid
 1400s Greenland Vikings die out (climate change & shortage of supplies)

1585 John Davis explores Canadian North (Davis Strait)
 1596-7 Willem Barentsz winters on Novaya Zembla

1878 NE Passage: Nils Nordenskiöld
 1848-1859 Jane Franklin expeditions
 1851 NW Passage: Robert McLure (by sled)?
 1905 NW Passage: Roald Amundson (sailing)

1909 North Pole: Robert Peary 1997 1st all female team
 (1st attempt 10yr earlier)
 1840 Jules Dumont d'Urville sets foot on Antarc. 1935 Caroline Mikkelsen
 1911 South Pole: Roald Amundson 1947 two women winter
 1969 six women visit the South Pole
 1991-92 Anne Bancroft led 1st women's team

LADY JANE FRANKLIN (1791-1875)

Rich, well-read, well-travelled, well-connected, didn't marry until she was 36.

1848-1859 Organised, inspired and funded 11 expeditions to look for her lost husband John Franklin (out of the total of 35 expeditions organised by UK & US authorities, societies and individuals).

More of the Arctic was discovered through these than in all previous expeditions.



JANE FRANKLIN's dilemma

Victorian era held women to be an afterthought: physically, mentally and spiritually inferior to men. The role of the female was domestic.
 → *women shouldn't outsmart men*

Mother died very young: modelled herself after her father
 → *passions were science, travel and exploration*

Learned to deplore 'bluestockings': women that gave priority to intellectual pursuits
 → *Tried to hide her intelligence*

Married widower John Franklin (42) in 1828:
 - was the more intelligent and energetic of the two
 - became his mentor and sole supervisor of his career

"If the woman be such a man,
 what must the husband be?"

JANE FRANKLIN's character

...as described by her niece and long-term companion Sophy Scacroft

She could lead the multidimensional search for her husband as...

"...she grasped the details with a force and acuteness which surprised to whom Arctic exploration was familiar..."

"... she seemed to possess herself with their experience, and not only to follow their reasoning, but to advance beyond them with a stimulating ingenuity in object as well as in design..."

JANE FRANKLIN's recognition

Respect of male peers (Arctic explorers), the society and the nation

1857: Aberdeen Journal "What a nation would not do, a woman did"

1860: First Woman to receive *Founders Gold Medal*

1864: W Dixon (editor of *Athenaeum*): "The great gun of the season"
 J Murray (publisher): "The most travelled woman in the UK/Europe"

Lesson?

"Women have to earn respect, while men have it"



Female Alpiniste ~1880

WOMEN IN THE ANTARCTIC

1950s Antarctica the only gentlemen's club left

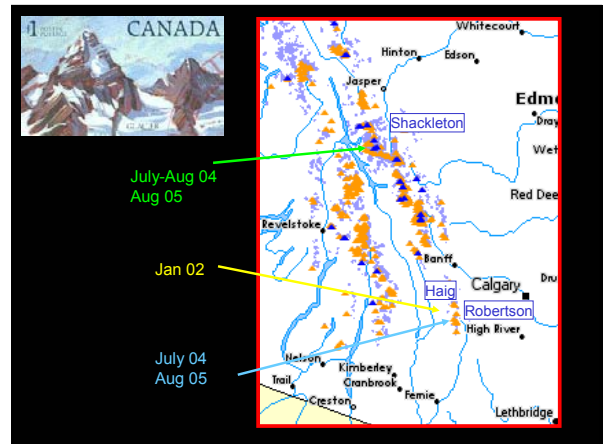
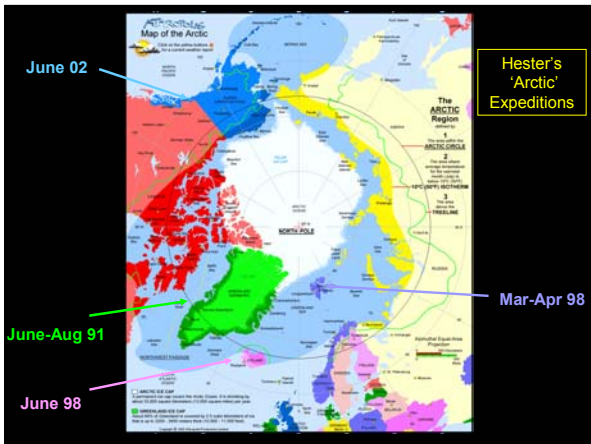
1956-7 Marie Klenova (Russian) first female scientist in Antarctica

1969 NSF(US) allowed women in Antarctic teams
Colin Bull organised an all-female team and was called 'traitor'

1998 - Diana Wall (Colorado State University):
"It's not so much that we notice anymore who are women and who are men, but we're doing science, and it's a big team effort."

PRESENT M/F RATIO IN ANTARCTICA

Summer	2:1 in main US & Australian bases 3:1 overall
Winter	>10:1



Hester's experience with the gender distribution in fieldwork

91 Greenland:
34 men 1 woman

98 Svalbard:
3 men 2 women

98 Iceland:
2 women

02 Haig:
4 men 4 women

04/05 Shackleton:
3 women
3 women 1 man

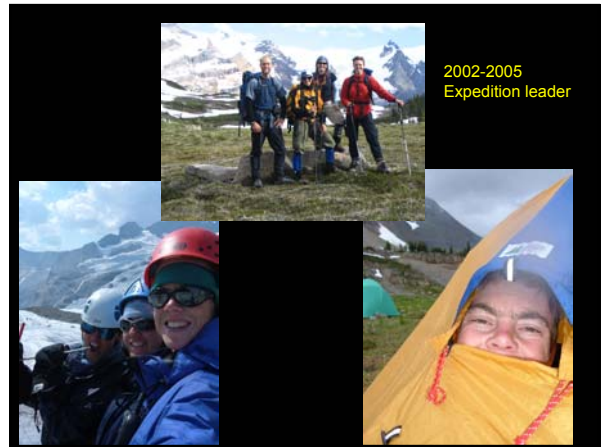
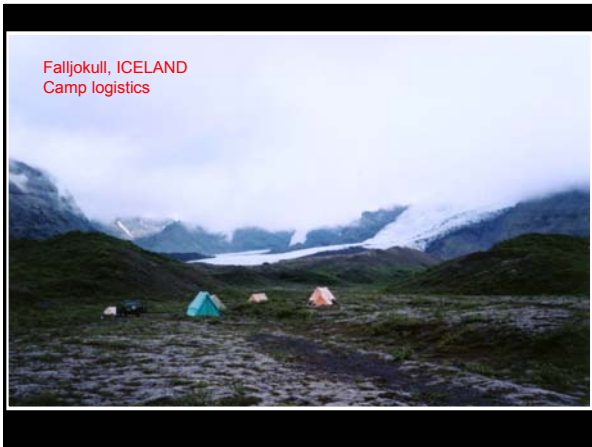
04/05 Robertson:
4 women
2 men (2 women)



Camp Russell Glacier, outlet of the Greenland Ice Sheet







POSSIBLE REASONS WHY WOMEN ARE UNDERREPRESENTED IN FIELDWORK

Emotional

Away from family
Admitting of fear
Food/body image
Female hygiene/privacy

Masculine = rational?



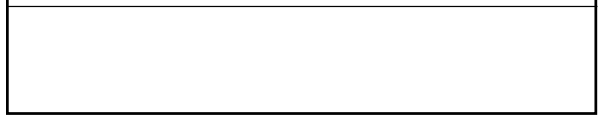
POSSIBLE REASONS WHY WOMEN ARE UNDERREPRESENTED IN FIELDWORK



Power structure

Hierarchical (seniority)
Discrimination
Job/Task distribution
Ask for help/protection = masculine
Competitiveness/Heroism

Rigid power framework



POSSIBLE REASONS WHY WOMEN ARE UNDERREPRESENTED IN FIELDWORK



Communication

Masculine rationality
Leadership

Perceptions of effectiveness

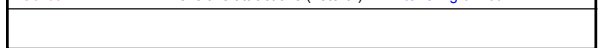
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Sexual

Tensions/attractions (hetero-)

Interfering or not?



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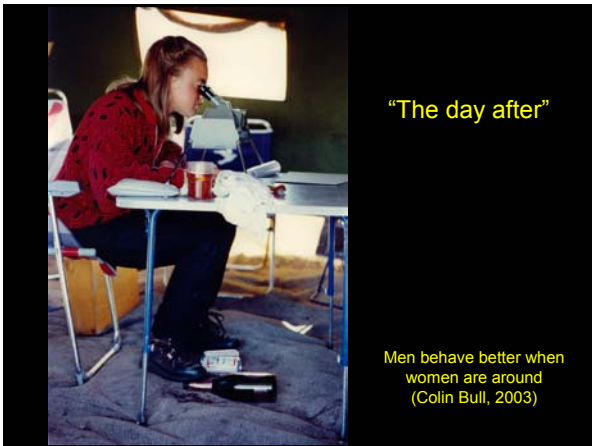


'Boys school' attitude

Heavy drinking/stupidity/discrimination
"I dare you" competitions

Responsibility?





POSSIBLE REASONS WHY WOMEN ARE UNDERREPRESENTED IN FIELDWORK		
Physical	Physical strength Stamina Resistance to cold weather Female hygiene	Perception vs. Ability
Technical knowledge	Heavy equipment Boat/Gun handling	Societal?
Emotional	Away from family Admitting of fear Food/body image Female hygiene/privacy	Masculine = rational?
Power structure	Hierarchical (seniority) Discrimination Job/Task distribution Ask for help/protection = masculine Competitiveness/Heroism	Rigid power framework
Communication	Masculine rationality Leadership	Perceptions of effectiveness
Sexual	Tensions/attractions (hetero-)	Interfering or not?
'Boys school' attitude	Heavy drinking/stupidity/discrimination "I dare you" competitions	Responsibility?

INTERNATIONAL GLACIOLOGICAL SOCIETY (IGS) FOUNDED IN 1936

Honorary membership: 12 men
 Seligman Crystal (scientific merit) : 28 men
 Richardson medal (service merit): 4 men, 1 woman (Hilda Richardson)

PIONEERING WOMEN IN IGS

Moira Dunbar (1918-1999)
1st woman on Alert

Jean Grove (1927-2001)
LIA/IPCC

Cuchlaine King
Co-founder BGRG

Almut Iken (ret.1997 ETH)

Liz Morris (Past pres. IGS/BAS)

Mary Williams
Director General NRC
Institute for Ocean Technology

Kumiko Goto-Azuma
Past Vice-Pres UCCS-ICSI

ALBERTA GLACIOLOGY SUMMIT KANANASKIS 2002:
10 MEN 6 WOMEN 1 SNOW F/M

NW GLACIOLOGY MEETING VANCOUVER 2005: 48 MEN 19 WOMEN

INITIATIVES TO BRING MORE WOMEN ON THE ICE

- 1) Female role models
- 2) National science initiatives
- 3)

Girls on Ice 2004
Mountaineering and Glacier Science
July 25-August 1, 2004
Young women ages 16-18
a collaboration between the North Cascades Institute and the American Alpine Institute
- 4)

**Women's Roles in Polar Regions
Past, Present, and Future**

...whether you are female or male, being in the field...

...enriches you, gives you confidence & joy, is a good learning experience, challenges you physically & emotionally, is overwhelmingly beautiful and brings you to the deepest lows and the highest highs.