## Breaking the Ice: Woman in Antarctica

## Dr. Michelle Raney: Station Physician

With its breathtaking beauty and harsh climate, Antarctica is a unique working environment for the scientific, medical and support personnel who are stationed there each year. But in many ways, it is also a microcosm of the wider world of work - where issues of gender, power and leadership are intensified by the isolation and remoteness of the 'the great white continent'.

A woman who has played a prominent role in the USA Antarctic programs - and made history in the process - gave a personal perspective on her experience at the South Pole.

Dr. Michelle Raney has played a significant role in the American Antarctic program. An anaesthetist, she was appointed as Station Physician at the Amundsen-Scott South Pole Station in 1979 - becoming the first woman to overwinter at the Pole. Dr. Raney has since returned to Antarctica, and plays a continuing advisory role to the American Antarctic program.

"When I applied for the job of station doctor it caused a lot more controversy than I realised. The US National Science Foundation (NSF) just contracted whoever was best qualified. However, when some of the old Antarctic explorers were told that I was hired - not because I was the best-qualified woman, but because I was the best-qualified doctor - the response was, "Why do we need the best qualified?".

I was selected as station physician after doing a year of surgery training, and had additional training in cold weather medicine and dentistry. In addition to working on a research project on human immune response in bio-isolation for the Oklahoma Medical Research Foundation, I ran the store and post-office. I was also involved in all the other station activities. I had a small treatment examining room with some basic equipment, a small operating room and a one-bed hospital.

First off, I identified who might be able to assist me. No-one had any medical training. So I figured, "Mmm, this is going to be fun". I tried to identify who I might be able to coach through something - whatever it was - if I needed to do an operation or suture up somebody.

At the South Pole the average annual temperature is -57°F or -50°C. The station is on about 10,000 feet of ice, so altitude sickness is the most common medical problem. The sun sets in March and comes out again in September. It is isolated from February to November because of the cold. Planes can't come in at all. At Siple Station, we were about 850 miles from our closest neighbour, McMurdo Base, so there was no hope of rescue, no hope of support.

The summers are lots of fun, but they just seem endless. Finally, we were able to kick everybody out, send them off on the last closing flight in February. And soon afterwards, if got very cold, -70° in the third or fourth week in February. And that really clinched it - we were stuck.

Then it was time to face the inevitable - the sun was indeed going to set and it did. And then what happens? Do people go nuts? There were some tensions, but generally they abated fairly quickly. Most conflicts would be handled by avoidance or forbearance on the part of one of the principals.



When I returned to Antarctica in 1987 I thought things were beginning to be much more normal. I just had to take a photo of a man and woman giving each other a friendly hug in public, because it epitomised such a culture change from when I overwintered. I had received so many instructions about what I should or shouldn't do, and how much time I should spend with certain people, lest anyone feel there was favouritism of any sort. So to see a man and woman expressing affection in public - such an everyday thing in our home communities - that represented to me a significant change in the Antarctic social climate.

Antarctica is the perfect laboratory, not only for scientific, environmental and medical research, but also to study the social change of the last 25 years. It is the perfect place to study gender differences in terms of management and leadership styles, crisis management, communication and working in teams."

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