

4thAnnual Phillip Law Lecture

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by

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"WOMEN IN ANTARCTICA: SHARING THIS LIFE-CHANGING EXPERIENCE"

It's a great and daunting privilege to be here this evening, to deliver the fourth Phillip Law lecture, and I wish to thank the Festival organisers very warmly for this opportunity. Dr Law himself is here, and I'd like to remind the audience that in the summer of 1960-1, his late wife, the artist Nel Law, was the first Australian woman to set foot in Antarctica.

It is appropriate to be giving this lecture in Hobart, for "Hobart always had Antarctic connections, and Antarctica is always a place of inspiration for Australians, and for women. It's a place where women can take on new challenges for themselves." These words from Ann Wessing, the first Australian female Field Training Officer in Antarctica, are an ideal introduction to the ways in which women are sharing the life-changing experience of Antarctic service.

It is now more than seventy years since Danish-born Caroline Mikkelsen became the first woman to step onto the Antarctic continent, not far from the present Davis station, and a generation since the first four women went South with the Australian National Antarctic Research Expeditions (ANARE) in late 1959. One of those, Susan Ingham, was a scientific secretary with the Antarctic Division, and wrote in her diary how she had to work hard organising scientific aspects for the expeditioners going to the Antarctic continent before attending to her own departure for Macquarie Island.

She wrote the press release about the four women, and there was no reaction for nearly two weeks, so she began to think it had got lost on the Canberra desk. But she records, "No such luck. On December 3rd we made the ABC National 7pm news; at 8.15 the same night a reporter and photographer came knocking at my door from The Sun. Next day ABC television was all over the place, for their newsreel, and did an interview which was rather fun. Later, the other women and myself successfully foiled an attempt by The Herald to photograph our underwear, saying firmly it was ordinary winter stuff! Women's Weekly came and interviewed, and Woman's Day wanted a story on return. In fact it got to such a point that my bread shop inquired if I was a good sailor, and the dentist wrote 'Bon voyage' on a receipted bill!"

The story of the struggle for women to be accepted as expeditioners is a fascinating one. It is not my intention to focus on history here, but I can't resist sharing this report of early encouragement in Hobart. In 1930, Mr Turner, Warden at the Hobart Marine Board, said in his address to Sir Douglas and Lady Mawson, "One thing disappoints me a little - that no women are accompanying the expedition. In these enlightened times, women have invaded all professions and all businesses, with credit to themselves and to the advantage of the professions and businesses. It is said that no woman could survive the rigours of life in the Antarctic but, as Mrs T. Murdoch reminds me, Miss Nina Demney, 28 years of Age, a graduate of the Leningrad Geographical Institute, is now second in command of the Soviet Arctic Expeditions..."

And an eminent female Russian marine geologist, Professor Marie Klenova, was the first female scientist to do research in Antarctica, with the first Soviet expedition in 1956-7, working from the research vessel *Ob*.

In the mid-1950s, at the beginning of the era of science in Antarctica, Rear-Admiral George Dufek, Commander-in-Chief of the US 'Operation Deep Freeze', stated what was then the standard objection to women: "The Antarctic is the last exclusive men's club in the world...! felt the men themselves didn't want women there. It was a pioneering job." However, by 1966 the explorer Scott's son, Peter, declared that "it was ridiculous that the Antarctic should be a male preserve".

Change had indeed begun. Russian, American and Argentine women were already working on Antarctic research vessels, and Australian, New Zealand and French women were working on the sub-Antarctic islands. In 1974 two American women Alice McWhinnie and Mary Odile Cahoon, wintered for the first time, both scientists and one a nun. Two years later Zoë Gardner was the wintering doctor for Macquarie Island, and in 1977-8 Jeannie Ledingham became the first Australian woman to spend a summer on the Continent, as medical officer for an expedition at Cape Dennison. Momentously, in1981 medical officer Louise Holliday was the first Australian to winter on the Continent and the following year, Patricia Selkirk undertook the first Continent-based summer science program by an Australian woman.

These events hardly opened the floodgates. Nevertheless from the 1960s women were participating in scientific expeditions to Antarctica, and began to occupy an increasing number of other positions, from doctor, radio operator and chef to the present, when they have now been appointed to every position.

Admiral Dufek's words have echoed down the decades in the views of some men, as women have 'invaded' the exclusive men's club in ever-increasing numbers. Today, women may be 30% of the summer populations, and up to half of the summer scientists on some bases, including the Australian ones. They are still in a small minority over most winters. Being in a minority in the fishbowl of an Antarctic station may still provide pressures and challenges, exaggerated because women are very under-represented in many of the occupations in Antarctica. But while the culture on stations replicates that of other remote places, such as mining camps, and still has some very masculine characteristics, the opposition to women's presence has shrunken and we are mostly considered a welcome normalisation.

But that's enough history. Festivals are about celebration, and in the remaining time I'd like to invite you to celebrate women's presence in Antarctica and the sub-Antarctic islands, and to savour the experiences of those who venture across the stormy Southern Ocean to live and work on the edge of the highest,

coldest, windiest and driest continent on earth. I will be relying very heavily on the words of women I have interviewed to present this narrative.

My theme is the life-changing aspects of the experience of living and working in Antarctica. One woman noted recently that, "At some level, everyone here still equates Antarctica with personal discovery and endurance, just as they did in the days of Scott and Shackleton". It is this sense of discovery and endurance that beckons women and men to go South. Poet Caroline Caddy, a summer voyager, talks about the 'glory thing' that called the explorers and navigators and may still motivate the increasing numbers who now trek to the South Pole each summer. She considers, however, that "A lot of the ordinary seamen and people who went down as just part of the expedition went for the same reason that you or I are going down there, that desire to experience this new land, this unknown place, this Ultima Thule."

Yet some feel even today that women need encouragement to consider trying to go to Antarctica. Sue, a young biologist, talked recently about reading Women on the Ice, Elizabeth Chipman's fascinating account of over 200 years of women in Antarctica. If I was teased by one of the guys who was implying that a book like that was silly as women can't be compared to the men that have been written about e.g. Mawson etc. I like to read books like that, if she said, if because I like to be able to identify with other women who've done similar things. Particularly the ground breakers like the first women to go down. I also think that in very male dominated fields having female 'role models' who have 'succeeded' helps you to feel that maybe there's a chance for you to succeed also."

Maria elaborates, explaining, "I feel so many women don't do things because they're not encouraged to believe they can do it, it doesn't enter their mind. It doesn't enter my head I couldn't do it because I'm a woman. I don't think 'a man can do it, but not me.' I feel women don't see enough women doing things, it needs to be made acceptable that women do 'that' too. We may be not as physically strong but we can get round that and we have other strengths." Yet on her appointment as the first female Field Training Officer, Ann recalls, "At that stage I wasn't confident I could do it, but I was challenging myself. I have to reassure myself, like most women." Hopefully, this need is fading for the present generation of women!

Annie thoughtfully discusses the problem of women's sense of self which lies behind such hesitation. She sees part of it stemming from the lack of continuity from one generation to the next. "Women have always done unusual things but we don't know about them. We keep re-inventing feminism, as the 'corporate memory' is lost from one generation to the next. One of the functions of a mentor in the public realm is to ensure that the experiences, knowledge and

¹ Elizabeth Chipman. Women on the Ice. Melbourne University Press, 1986.

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learnings of that period become public knowledge (<u>not</u> public property). So, too, do the experiences and learnings of those affected by the 'mentor'. When one woman achieves some level of public recognition, others are inspired to speak out more confidently." And this, I venture to suggest, is one reason why it is still valuable to talk publicly about women in Antarctica, and I applaud the Festival for providing this opportunity to share women's experiences.

The word most frequently used to describe the opportunity of going to Antarctica is 'privilege', but that doesn't mean it's easy. Alana, who was in her early 20s when she went, calls for recognition of "what it means for a woman to winter over, the achievement of it. It was a journey about survival when the job went badly, being left out, dealing in a very constrained way with interpersonal relationships, having to get on with people at least in a working relationship, and the mental strain of always being watched in a sexual way." Midj, an experienced meteorologist, feels it sets you apart from the general mill, it's something special to attach to yourself. She sums it up with the words, "I was not trying to prove that I was tough by going, you don't need to. But it's a special place not many people get to." Robyn puts this vividly with her description of arrival at Mawson after years of preparation to become a qualified radio operator: "I was on the first voyage in so we flew from the ice-edge by helicopter, and the pilot each time was doing a circuit of the base so people could take photos. I had never been on a helicopter so there was just this big Cheshire-cat smile on my face, and I was thinking 'I'm here! It's happened, I'm here! I've made it after all that work, all those years'."

The bases are work places and I'm particularly interested in what it's like to do one's job in Antarctica. Respect for oneself and from others is closely tied to one's performance. Woman after woman with whom I've spoken found new confidence and pleasure from doing her job there. To succeed, you need to be well-prepared, and for scientists in particular there is on the Australian bases no formal technical assistance over winter. The ability to innovate is often vital, and you need to be on good terms with others in order to call on their help. Phillipa explains this reciprocity:

"I love doing it, I would never have done it if I didn't like doing it, but I did realise too that if I drove their AGI trucks for them for the big pours every few weeks for the foundations [of the new station], and if I helped them out even for half a day it was noticed, and it meant that when my time came when I was really busy, I was able to go up and say 'Look, Ray, I wonder if I could borrow one of your blokes just for half a day' and he'd say, 'Phillipa, you want two', and we'd have a bit of a bargaining session, and also when the time came when the ships were in and I was incredibly busy, I knew that I could rely on these blokes, all of them, to be of as much assistance as possible. So I figured it was always in my own interests to cultivate a good working relationship with them, but at the same time I really enjoyed doing it, so it was having your cake and

eating it too, I suppose." Gillian, a doctor, shared in the concreting too and also gained both cred and pleasure from it.

Lyn, a young woman, captures what a winter meant to her: "I feel a lot more confident now - I hadn't had much experience with being in cold weather but now I know what to do in Tasmania regarding body heat, and first aid, it's fantastic to know this. It really boosted my morale to say I got through a winter, for example I successfully sampled in the lakes at -38 degrees, had a good time on the quads, skidoos, could do things like use drills. Tracy and I had to do fieldwork during winter. We didn't feel put down as women, we got respect from having to go out and work, not just to play in the cold - it was a really good experience and morale boosting. When applying for science jobs now, I feel I've proved myself in a difficult, hostile environment, used equipment and maintained it etc. I'm very thankful for that."

Gina echoes this sense of achievement, and points to new experiences with equipment as one highlight: "The previous year there had been two PhD students and an Antarctic Division engineer. I was the only one in physics the next year so it looked like one woman was to replace three men! There was a lot of pressure on me and the work situation was a huge challenge. I got a lot of help but am proud that I was able to keep things running. It was a wonderful situation. Nowhere else in Australia would you get so much experience with equipment. I ran nine experiments for five institutions, with more than \$¼ milion worth of equipment. It was a real joke to send a 25 year old honours student to run this equipment - but also a wonderful challenge to a young woman. If you chose to see it as an opportunity for learning it was great."

Another young physicist, Natalie, echoes this: "It was good to be a little bit more independent, though I didn't think so at the time, but I see the benefits now. I feel proud I managed to fix a problem with the computer from a distance. I didn't identify it, but chased it all up, and little things like that can make you feel a little bit better about yourself." "Proud", "feeling better about myself", and "more confident" come up time and time again! There is another life-changing spin-off for some. They find that while gaining confidence about doing their job, they also find that their experiences with other people's work, and the time to think about the future, leads them to look for more people or policy oriented employment, away from pure science. And in Karen's case, "It has had a profound effect on my attitude to a career at all. Basically I've changed my mind about careers and gone sailing. Now if there is work in my field available I am, of course, delighted but in between sailing I am quite prepared to do whatever. I think I have felt the need to maintain the 'challenge' if that doesn't sound overly dramatic."

Here are some highlights of the work experiences of women in Antarctica. Barbara is an ornithologist who spent a winter with one other person camped out on the ice studying Emperor penguins. "I marvel at the birds, especially the

males carrying the eggs. They shuffle on their heels. They can go up to 30cm steps without eggs, but only 5cm with eggs, and they walk for kilometers like that. They can't extend their flippers as that may dislodge the eggs. When the females return, all these dirty skinny little males roll around stretching! They are such good parents, they sing to the eggs, and show them to each other."

Then, in July the females come back, as she continues, "They are ever such a sight to behold! The forecast was for not particularly good weather, with a bit of wind and snow, but we got out to look at the colony and to do another egg collection before they were buried in snow. Out of the blowing snow we saw six females coming out of the shadow - they were huge, big, clean, really showing off the little dirty males. The females were birds with a mission! They were tobogganing at first, then they got up, marched, bullied their way in between the males, and started to sing to locate their mates. They disappeared into the first huddle and became part of it, and nothing much happened for the next days, then a solid string of females came in, the noise level vastly increased, then they continued a cycling of birds in and out."

As spring arrived, she was excited when the Weddell seals started to return and pup. She describes how "There was nothing but cloud and stars above for months, then there were flying birds which was great - skuas, giant petrels, Wilson's storm petrels - they were just marvellous. Then there was a moving boiling big black band and a whole group of Adélies scooted on past the colony to the islands. They stood up to the big Emperors! As the tide cracks opened, the Emperors began to use them as bathtubs and swimming holes, including the seal holes. There was a marvellous interaction between the seals and penguins. The serenity of winter was well over!" She concludes, "It's just so beautiful, I thought I wouldn't care if I died out there, what a place to leave this planet!"

Macquarie Island has a larger variety of wildlife, something that enchants biologists and others alike. Cindy considered actually doing her work there is the high point, saying, "It's an extraordinary experience, to work there, in the field, with the animals, to know the animals intimately and their life cycle." Pauline, who worked with Gentoo penguins, exclaimed: "To look down on a colony of thousands of penguins is unbelievable!" She introduces another aspect of working down South, namely the way you can focus on your job with few other responsibilities. "It was wonderful to be there on the job, to travel [from hut to hut], keeping notes up to date at night, most of the time was devoted to the job, and you could concentrate more, there were few distractions..."

And working on marine science voyages on board ship, Ruth enjoyed the large and spacious laboratory, which became her own domain, a treat in any Antarctic terms where privacy is rare. She describes it as "My own space to retreat to, a hideaway with my own pictures and music." And like others, she remarks on the autonomy in one's work, which she admits is great though a bit overwhelming. "I like the challenge!" she exclaimed.

For Carol, station chef, "It was my best year, probably. I was in charge. I was 'mum' - not that I found that power a major thing, but it felt it was a complete job from A-Z - you had to shop, know your clients well, plan and cook. Other skills you had to have too, for example using the forklift for shopping from the storeroom - they were built into the sort of experience you wouldn't normally do." Chefs have been the lowest paid, and they feel that does not reflect the significance of their work to community wellbeing and survival. Others have noted some snobbery associated as much with lifestyle, even preferred drinks, as with education. But it is basically an egalitarian community where everyone shares common station duties.

Phillipa, for one, has found this contributes to her love of working there: "I have a really strong sense of 'I've got my job, I know my place, I know I do it well, everybody else does too, and I know what everybody else does.' Nobody thinks 'oh, she's just the storeperson', nobody thinks that you're of less value because of what you do, everybody is of equal value and I really like that. It's the only time in my life that I have had confidence in my sense of what I'm doing and confidence in my sense of place." It doesn't always live up to this ideal, but it has the potential for it, and is something I know Dr Law was very keen to make part of ANARE.

Being out in the field is often the highlight for scientists. Nerida, a geologist, explains the significance of this for her work: "You need to know the slopes coming into the environment, the surroundings, like knowing that penguins come in, and do their 'thing'. You have to get out and experience different situations to see what's going on, what can happen, for example, when it's warmer on the sea ice. I would never have understood the various states of sea ice during a single season in Taynaya Bay unless I had experienced it myself. You need to see this at least once. You need to visualise things in order to write."

But she also revelled in it as a personal experience, saying, "It was wonderful - I loved it. The experience completely changed my life, though I only had a month there. We were out in the mountains and living out of tents, the isolation and the elements were special. We had a lot of white-out and blizz, with temperatures of about -20°. I got used to it and was very comfortable in the tent. I came back a very different person after the first time. There were only the three of us most of the time in such extreme conditions. Once we were near the top of Mt Feather in a tent, it was -60°, with 100 knot winds going over the top of the tent. I thought 'Will I survive this? What if the tent blows away?' We were at high altitude so it takes longer to cook, you have to think about cooking, going to the toilet, the safest way to get a sample on a cliff, and you're always worried about the others! I got a lot more philosophical after I came back."

The place presents new perspectives for doctors, with both a positive and negative aspect, as Jane records: "Medically, it's potentially a backwater. And

medically it's the ultimate general practice. It's the ultimate challenge, I think, because your limits are being an expert in absolutely everything, and no-one of course is, no-one can be, but it's the ultimate remote medical location. When I say it's a medical backwater, it's just that you've got a small population of previously screened people, you don't have your normal community medical problems, and you don't have the same patient load. I wasn't bored at all, but it's a very different thing and you're out of general circulation."

The very structure of the work, and her fellow workers, is what Phillipa loves: "My strongest memories of being down South are of those windy, hard, working days when you're working as part of a team, when you're loading and unloading ships, all of that stuff. Talking on the radio, running here, running there, being busy-busy, always on a mission. I can remember working the quarry at Casey for a few days, that was good hard solid work."

The environment provides new challenges in carrying out one's work, as Karen demonstrates: "I found working on Macquarie Island very physically demanding, and it kept my brain occupied. The wet and the cold was a constant challenge and there were a few novel problems, such as keeping seals and penguins out of the trenches I excavated. Also a constant battle against flooding. As far as I am aware I am the only archaeologist to have wintered on an ANARE program and although excavations had been done by various people, they had been conducted in ice not waterlogged ground. Therefore I designed the research and then carried it out with some 'special case' adaptations." Imagine, with Lyn and Tracy, going out in minus thirty degrees to take samples from a boat on a saline lake; keeping your equipment warm in your sleeping bag, as Barbara and others have done, or as Cheryl describes, "battling the elements, and digging your samples frozen several centimeters below the soil; you have to take your hands out of your gloves to write." That's cold, even in summer, as I know from recording observations on penguins at 2 am when it's snowing!

Jennie puts it in a wider perspective, saying "There's nothing to compare with standing at Lusitania Bay with 100,000 penguins around, seeing a whale. It makes up for being saturated and cold – it's the most extreme biological life l'II get to see. It meant an awful lot personally. Also professionally it's given me a different biological context to put things in, for example rabbit impact. You can alter a whole flora with one introduced animal and see the effects in a lifetime, or see what an elephant seal can do to a sphagnum bog."

Jeannette sums up with the words: "It was great doing hands-on science! Everything's harder there - the weather, the condition of the sea ice, the lack of fresh water for washing. But the sheer fact of working in that wonderful place makes up for little discomforts." And for many, the personal satisfaction of doing your job under those conditions, and of the opportunity that Antarctica still offers to become, in Liza's words, "a brick in building knowledge", is life-expanding.

Then there are so many other things to learn there! Nerida exclaimed "The skills you learn, they're a real high, even the skills you learn in field training, you really realise what they are when you get in complicated situations. If there's an accident, you get a high because you can handle them, for example I got the quad out of a tide crack without help."

If working in the Antarctic provides special problems, pleasures and perspectives on one's own field, there is also a unique opportunity to find out about other people's work. Mandy, a highly experienced chef, became involved in many different aspects of station work: "One of the good things about being around here is to get involved in extra station positions like theatre sister, Search and Rescue, photographer and other people's work, or going to places you wouldn't get to otherwise. Also learning new things 'on station' from people who have other skills such as computers, carpentry, one of the plant operators helped me and the female storeperson to get our 950 license (the <u>big</u> earth mover), helping with the automatic weather stations is also good, they're in way out places." Where else would you do all this in one year!

Maria gives another lively account: "The thing that hit me was that you can do almost anything you choose to do in that environment, both recreation-wise, work-wise, getting involved in other's work, and also finding out lots of things that people might find mundane, but for a 22-year-old, how a small community supports itself, all the essential services, things like that, are very stimulating. I'd never thought about that before. I got involved in a few little carpentry things, I built myself a trailer in the mechanical workshop for my motorcycle, learnt to weld, and a little bit of metal lathe work. The other thing I liked was to use the front end loader to clear the roads after blizzards; I loved driving the big machines. There's really no other working situation where for example scientists can just go and do that. Because of a small self-contained community, you know you can become involved in so many aspects of it."

Such opportunities give many women a new sense of competence and enjoyment. In Annie's words, "A high was the incredible exhilaration of doing things I'd been afraid of before - riding a quad, driving a Hägglund. I don't like driving a car, and here I was driving a Hagg, and it was easy!" There's also the opportunity to get to know the people who drive big machinery for a living, as Alicia recounts: "Paths would never cross here with some for example the dieso, but he was a great person to get to know. I have broadened my horizons about other people as a result of going South; I recognised that I'd had selective exposure back here. A lot of those barriers disappeared with familiarity."

One life-enhancing experience is just being out in the environment. Kerrie finds that: "The physical side of the environment can be stunning, there are really stark landscapes, it's purply pink in the sky when the sun doesn't appear for six weeks. The light is the most magical part of it - it's hard to explain, and subtle

in winter. It's so still, so quiet when you're away from base. I was hanging out for going into the field without sampling!"

Roslyn, a summerer, joins in: "The big thing was the environment. While the sea ice was there, I skiled, by myself, every night - out amongst the grounded icebergs in the middle of the night. I was on a real high. I was on top of the world emotionally and physically, from being there and doing what I was doing, and this was accentuated when I was on my own." And who can match this experience of Ulla's? "At Davis we went for a five day walk - it was minus 28 to minus 30 degrees and we went ice skating on one of the lakes. For the first time I got vertigo when I went onto the lake and looked down and could see the bottom through the ice because the water was so clear. Everything was spinning and it was my head! I held onto Karen until I got my balance back and then we both skated on the lake in the twilight in the failing snow. It was minus 28, nearly dark, there were huge snowflakes and we just skated from one end of the lake and back again - we did it over and over again. Just the two of us and the silence, it was like we were the only ones in the world."

Here are some other vivid descriptions of the environment. Colour, light and silence dominate, except round a penguin rookery! The first time Wendy visited one, she heard a 'chatter', then "turned the corner, and there were millions of penguins, in groups, some 'talking' to seals on the beach. Another high point was watching the sooty albatross glide." Liza finds that Antarctica has an "intrinsic quality of its own, it's a place of great magic, hostility, tranquillity, serenity, surrealism, expansion and contraction, solitude and oh! the silence, it's the biggest thing and it's brilliant, and the lack of smell - you get used to it and then you smell something and it's normally shit! And the colours - those gentle hues of blue, green, orange, pink, purple which reflect on the ice as the sun's rays are borne into the atmosphere."

Penny, who has studied the aurora australis, finds that: "In Antarctica in general it's the big open space, the expanse of sky with aurorae splashed across it, the pinks, purples and blues of the long polar twilights that really inspire me." Then Tracy tells us that: "The moon is spectacular - it circles around sometimes without setting - amazing! - and there are so many shades and shapes of ice, there are bubbles in the ice in the lakes, there's an enormous variety, providing endless fascination. There are huge contrasts in the different seasons - in summer, there's so much light and energy - you can ski for four hours after dinner, there's lots of wildlife, it's all very active - then suddenly the animals have gone and there's nothing. There's an amazing silence but it's not nothing - you can hear your heartbeat, become alert to the tiniest sounds."

And then there's Ms ANARE's feeling for ice! Roslyn wrote in her diary, "The ice just out in front of the melon [hut] comes alive! It breathes, it moves up and down like a chest and the sounds are amazing. Sounds like breathing and there's lots of groans, creaks, sighs and cracking. Just as I was about to step on to the

area on skis, it started heaving up and down and making these amazing sounds. It really looks like it's breathing. Skiing's getting quite exciting, not quite knowing whether or not the 'ground' is going to open up beneath you or float away with you on it!" It was a close shave for seal biologist Tracey, out alone one night when it started to break up around her. "It just went 'boom'. I noticed that it was a different sound, my blood curdled, I went cold down my back...I went back and packed up all my equipment, put it on my back and ran - by the end I was jumping floes!" Next morning her campsite had blown out to sea! Doreen loved "just exploring the place, for example the icebergs. I found fantastic ones with caves, tunnels, chambers - the forms, shapes, colours, sounds, blew me away! And the frozen lakes were magnificent, they have cracks and fractures, air bubbles, sometimes clear to the bottom, bubbles like frozen fireworks..." Christian Clare Robertson has captured this in her magnificent Antarctic paintings.

"It's magical!" glaciologist Melanie exclaims. "Going down there on the boat was like going into fairyland, going through icebergs, the change from pinks to purples to mauves, there's just no white in Antarctica, it's all shades of white. What impressed me the most was the silence - 120km inland, it is just flat and white all around and you could ski from the base and the generator noise and just be in a silent environment. I've never experienced anything like it. It was scary, it was peaceful, it made me smile, just being there, it was special." Anna has a memory of "being extraordinarily small sitting on a headland looking east, it was an extraordinarily clear day, and I was alone, looking across the sea forever. That was very special, I was a part of the system, small, and insignificant."

Alicia reminds us of the need for a healthy respect for the environment. "I felt very small and vulnerable at times. There were times when you'd just get out and look and see for miles and feel so isolated and struck by the beauty. The first really cold day, minus 29 degrees, I headed out skiing. It was scary cold. We were out for five hours and I had the feeling my fingers were going. We got caught by the weather going back and had to bivvy. I was very aware of my hands that night!" Clare found: "On the voyage we were intensely aware of being at the very end of an immensely attenuated supply line tracking back for thousands of kilometers over the stormiest seas in the world, the product of the high technology of the late 20th century. This was our umbilical cord, the only thing which kept us alive in that environment which is essentially unsuitable for human life. The slightest malfunction would have spelled disaster. I was always aware of the sense of intense vulnerability." Or as Cheryl succinctly remarked, "I was in awe of it - still am - its power, hostility, beauty, remoteness. I wanted to go there because of those elements - to physically experience all of that."

It isn't only the environment that attracts. Judy thinks a lot go back because you can focus, uninterrupted, on your work, and "life's quite simple; the rest of the world doesn't matter." Charlotte echoes this: "It is a very simple existence, and

because there are a lot of things that aren't there, you don't actually worry about them, they're not a concern - and I think that's actually one of the attractions! In a lot of ways it's a very easy place to live." And as Phillipa says, "There's no push, there's no MacDonalds up the road, because there is no money there's no consumerism, there's no element of competition, who's got what is eliminated largely. And that's what I really like about it."

One result of this is the intensity of relationships formed in Antarctica. Gina and Tracy were both fascinated to find out how a small isolated community draws together. Tracy found there were a lot of surprises in it: "about myself and the things that came up within, things that became big, and where you need to experience the small community to realise how nice it can be." Or alas, at times how awful for some. Tolerance is something many learn, sometimes painfully, and in Anna's words, "The social side was a steep learning curve but I value that highly." A critical aspect of relationships is your dependence on others in a potentially hostile physical environment. Annie points to the importance of trust in others there: "At S2 and Law Dome, we were very dependent on each other, there was no medical expertise in the group of 12, and we had no radio contact for the first half of the trip."

Louise, the first wintering woman on the Continent, didn't realise how much she missed other women's company until she met Ulla on the first voyage in. She comments, "If another woman had been there, it would have been fantastic if we'd got on!" Women vary enormously there, as here, in their need for other female company, and their experiences with other women on station, as well as with the men. While men may assume two women will automatically get on, this can be far from the case, although many, like Lyn, may miss having a really close woman friend. Penny suggests that women and men relate and communicate in different ways, and some of the stress for women as a small minority arises from the fact that they are not part of the male bonding processes. Nevertheless, Ruth sums up the finding that for most, at least retrospectively: "There's a big sense of family with those with Antarctic experience - when you meet someone who's been, you chinwag! There's a sense of rapport."

At the intersection of the environment and the community there can be a profound re-thinking of our relationship with the rest of the planet. Clare feels that "Antarctica is more than just a physical place. To many people it represents a state of mind, a precious place unlike any other. As an artist I use my intense feelings for it as a yardstick against which all other sites and emotions can be measured. In short it is extreme, one end of the spectrum, and must be understood." For Louise Crossley, "Antarctica has a kind of inspirational value for the human spirit." She "had this dream of Antarctica as being a source of world peace - a very visual image, of the globe actually turned upside down so that Antarctica was at the top, and the icecap spreading its sort of serenity over the rest of the globe."

Being in that environment is an integral part of the inner experience. Astrida found "a sense of connection with being there, the particular elements that the Antarctic has, from patterns of frozen ice on a lake, or the pristine quality of rocks around a moraine area at the edge of the continent, at the headwaters of a fjord, or seeing snow petrels around the ice cliffs in a fjord, witnessing the moon and its colours above the icebergs out on the fast ice from your bivvy, and feeling pretty cold but not wanting to put the bivvy over your eyes entirely because you want to see everything; seeing the Weddell seal's breathing hole and putting a hydrophone down and this whole other dimension comes into your being - you've got your headphones on and these sounds are coming into your body from this other dimension - you're hearing but you can't see. The effect this has on your being - you reveal yourself to yourself - that exposure is quite beautiful, but it's also a bit sad because of the condition that we have here back 'in the world'."

Finally, listen to women's words describing the significance of their Antarctic experiences. Four decades after first going, Elizabeth Chipman could still say, "It's difficult to describe what it's like and it looms very large in my personal life, it still colours every day - because I deliberately set out to work on it, am immersed in it."

Kirsten and Karen cherished the experience of inner peace. Kirsten acknowledges: "Wandering alone calm and at peace - things are clear there, uncomplicated, you take time out from life to drop out, do what you want to do, as a young person, with some other special people. You can get blasé - you need to look around, stop and say, 'I'm in Antarctica, I made it', and look with new eyes again, it's such a privilege." And for Karen, "My biggest achievement was one of inner peace - almost serenity- which I only finally came to at the very end of my winter whilst in the field. Plus the knowledge of what I was capable of and of my strength and powers of self-discipline."

That finding of one's capabilities and strengths is perhaps the most valuable experience, and it comes to young and old alike there. Pauline, at 60, found: "The sense 'I can handle this' was a wonderful feeling. The challenge to be self sufficient, have confidence that you can cope." Mandy, forty-something, reflected, "I guess I am more self-reliant, more tolerant of most things, less tolerant of others. Self-directed: I used to wait for people to show me how to do things, now I just try and teach myself." In her 30s, Ann experienced "heightened esteem for when I am looking for new challenges." And for younger ones, like Ricarda, it meant: "Looking into the self, seeing more about yourself, relying on yourself and coming out of it. I learnt 'You can do it, get on with it.'" Lyn can proudly look back on the experience, and "see what I want a lot more clearly for life in the future."

One wife and mother reflected on her return that: "The really big thing for me was that it was the longest time I've had 'to be me', nobody's appendage, wife,

daughter, mother. It was that rather than Antarctica itself has made the experience probably life changing in major ways. It was discovering my own strengths. Once you start that soul-searching journey - and a lot do - it has to lead to change."

But first there is the journey home. For some, in Pia's words, it is "the lowest point, packed up, waiting to get to port, knowing it was over, and you've only got to write the data up and go back to normal. Saying goodbye after lovely times and never seeing them again." But even returning affords new experiences, as Ruth explains: "On the return you smell it, then you see birds, fishing boats, Maatsuyker Island, the bottom of Bruny Island, the trees are so green, as if they were painted with a brush even though it is summer. There's nothing quite like sailing into Hobart after being away - it's been a great day each time - and a sense of adventure as well. It's our ship, part of our city. It's a lovely city to come back to."

To you in Hobart, then, especially young women, may I finish with an invitation and a challenge, in Barbara's words: "I've always believed that if you want something, you go and get it yourself." Or as Liv Arnesen, first woman to ski solo to the South Pole, says, "Iive the dream!" Why not find out for yourself? The opportunities for women are there.