



Pushing the limits of polar exploration and science - an interview with Alan Chambers MBE

Alan Chambers MBE is an accomplished polar explorer and adventurer who successfully led the first unsupported British team to walk from Canada to the geographic North Pole. Here, Alan talks to Claire-Marie Roberts about his motivations to explore, and how outdoor adventure and sport science could benefit from a more symbiotic relationship.

Amongst his numerous expeditions to the North and South poles, Alan Chambers MBE has planned and executed the first ever winter crossing of Iceland on skis, completed the Yukon Arctic Ultra Marathon, cycled 1,800 miles from Gibraltar to the UK and has led teams on expeditions up Mount Kilimanjaro, the Himalayas and from coast to coast across Greenland. The aims of Alan's adventures are diverse. Through his expeditions, he promotes the development of key values such as leadership and personal progress. He also recognises that continued exposure to extreme environments, where the human body is pushed to its limits can provide ideal opportunities to provide data collection opportunities for the study of nutritional needs, human diseases, equipment, clothing and on leadership selection. If Alan's efforts weren't enough to make even the most active person feel sedentary, he combines his passion for exploration with an opportunity to mentor others. His latest challenge involves leading the Extreme Classroom initiative where an annual expedition for children aged 11-16 with complex social, behavioural and/or learning difficulties helps them find their strengths, build determination, resilience and ultimately learn from life changing experiences.

Where does your passion for extreme exploration come from?

My stubbornness! As a child, I had always wanted to join the Royal Marines. When I was 14 I took on two paper rounds to help me get enough money for the gym membership I needed to prepare physically for the notorious fitness test. People told me I wouldn't

get in, but that wasn't an option for me. I signed up when I was 16 alongside 56 others. Six of us finished the 32 week training and went on to become Royal Marines Commandos. I spent 17 years serving with the Marines and throughout the course of my career I made many friends. One of my closest mates fractured his C5 vertebrae in an accident and was subsequently paralysed and became a quadriplegic. Three years later, he died as a result of an operation on his spinal cord. It was my friend's injury and subsequent bravery that compelled me to raise money to fund scientific research into recovery from damage to the spinal cord. My first money and awareness-raising idea was to lead the first team to ski across Iceland in the winter. In preparation, we blogged lunch with Princess Diana, and she consequently became a patron of the charity and of our expedition. Since this time, I've been to the North Pole 12 times, and have raised around £5.5m for a range of charitable causes.

What motivates you to continually push the limits to achieve new goals?

The places that I explore, and the expeditions I embark on. These are places where I clear my head. In the UK life is fast and hectic. People rush around at 100 miles an hour and the expectation is that you maintain that pace. I believe this means you can never give one thing 100%. When I'm exploring, it's a coping mechanism for me. A chance to escape, to be in a place where there are no distractions. I get thinking time, an opportunity to examine my outlook, to be reflective and gather some perspective. Some people view this as selfish. (Sir Ernest) Shackleton was the same. Ultimately,

I found something I am good at, and I know I can use it to give something back. Through adventure, I can help pass on the values of honesty and hard work. The Extreme Classroom initiative I run gives something to children that they don't get in the classroom; that attitude and approach reinforces the view that if you can put one foot in front of the other and you stick to it, you'll make it. Adventure is a great platform to teach these skills.

How have you benefited from sports science support in the preparation for, and during, recent expeditions?

My approach to preparations for my expeditions are developed and refined through experience. This probably goes against the grain of high-level sports performance. For me, it's a continuous assessment each year. What worked? What didn't work? Having said that, I do enjoy learning from my contacts from other sporting backgrounds. For example, I have shared a lot of nutrition information, leadership insights and process with people from professional Rugby Union.

How do you feel your work contributes to scientific discovery and understanding?

I am fortunate to be in a position where I am able to test a variety of different equipment, and to engineer and design things that you can't buy on the market. The cooking systems we use during exploration are designed and made in a shed in Newton Poppleford [outside Exmouth]. The best mittens for extreme environments that I have worn were knitted by the Women's Institute (WI). A lot of the testing I do helps people cut through the marketing nonsense where the resounding message is, "The more expensive the item, the better it is." For me, the equipment used must help the team embrace the risks we face. To give you an example, I once tested a £5,000 tent. It was awful. It took four people 1 hour to erect. It looked good, but it was impractical. The tent I used at the North Pole cost £50. It pops up automatically, which is important if you are dealing with adverse weather conditions, or injury and illness. The fact you can be sheltered almost instantaneously in these situations builds confidence in the team. You can't put a price on this.

What do your expeditions add to our knowledge and understanding of the human body specifically?

Like [Captain Robert Falcon] Scott and [Sir Ernest] Shackleton, my expeditions are ideal opportunities to collect data on the human body. The environments and situations encountered during these adventures couldn't be more suited to data collection, but I'm surprised more people don't capitalise on it. For some of the future expeditions I am currently planning, I have been approached by a group of universities to collect data for their research into the role that bone plays in diabetes mellitus. Currently, we are also working with Tim King at De Montfort University. He will be conducting the expedition team's bio-core assessments to help us manage our posture and develop a more efficient gait. This will also include the design and fitting of special orthotic type stabilisers in our boots. Theoretically, this should alleviate stress points and even blistering in the expedition conditions and therefore improve our performance. We'll be reporting back!

How about in terms of psychology? What can sport scientists learn from your experiences in coping with extreme environments and any subsequent adversity?

There's so much to be gained from understanding the mind in the context of extreme adventure. The right attitude is key, you have to be ready to take on the challenge ahead. In these environments, you have to find a way of concentrating intensely enough to secure your and others' safety. You have to set goals, engage with them, be able to understand how to revise them when required and still maintain your drive to the end. Then there's the continuous reflection that goes on, and the leadership process. All of these things are beneficial lessons for anyone in sport science. Engaging with

challenging environments helps build resilience in individuals; how to transfer lessons like this into sport is something that warrants further attention. During expeditions I use a very specific mental approach that is personal to me. I call it the 'bright white box'. This involves me running four conversations in my head simultaneously.

Why four?

I don't like odd numbers. I have an 'immediate box' for the here and now; a 'next week box', which involves thoughts that are involved in constant planning; I have a 'dream box' - every bloke has this and a 'private box' for my private life, family etc. I lose 8 hours a day in my bright white box and I struggle to turn this off at night. The ice caps are great canvases for the mind to run free yet it's important to maintain the ability and mental awareness to focus on any danger instantly. The 'bright white box' allows me to do both.

Sleep must be critical in your expeditions. If you are unable to turn off your 'bright white box' how do you ensure you get that rest?

I get up and write things down. I have to get up and have a cup of tea. I can't just shut off. I use ear plugs when I'm in the tent [during most expeditions]. Although it's the quietest environment, it's more psychological - I need to demonstrate to myself that I'm shutting down by using earplugs and putting a hat over my eyes. I work hard on harnessing the mind. It's important when you're on watch 18 hours a day.

What do you feel sports and exercise scientists can learn from extreme exploration?

There is so much opportunity presented to sport and exercise scientists by outdoor exploration in extreme environments and hardly anyone capitalises on it. Psychologically, we don't tap into adventure enough. The right level of mentoring and positivity can help people achieve their potential and the adventure platform provides us with this opportunity. Outdoor adventure is a £2bn business and we need to figure out how to harness this more effectively for the benefits of sport and exercise science. Ultimately, our greatest explorers approached extreme environments and grueling physical challenges without pilates and personal trainers. They didn't have access to nutritionists, instead Shackleton for example set off to the Antarctic with 1 tonne of pipe tobacco, 3 tonnes of chocolate and a couple of hymn books. Whilst we know enough now to conclude there are more effective ways of fuelling the body for such an endurance event, this approach demonstrates the power of the mind. Something we need to look at in more detail in this context. In society, I often wonder where our spirit has gone. In different walks of life we see how easy it is to give up and throw the towel in and to a certain extent this seems to be encouraged. At the South Pole nowadays, there is a research facility, cafeteria, music room etc... and the ability to execute an exit plan - to turn back, get on a plane and head home. Great explorers never built in an exit plan - if that option wasn't there we wouldn't think about it. I want to try and encourage the removal of the exit plan - the easy option, the path of least resistance, especially when working with kids. I want to teach them that failure generates valuable lessons that help develop character and spirit. I want to help build that spirit and determination - through Shackleton's footsteps.

What next?

I'll be leading another expedition as part of the Extreme Classroom initiative, the fifth in a series of 8, and then planning to head South to follow in Shackleton's footsteps. ■

Interview by:
Claire-Marie Roberts, University of Worcester