



Selfie at -65° Celsius

Life at the limit

Capturing these otherworldly pictures took Dr Alexander Kumar to the edge of human experience

At the Society's Bath headquarters this month, Dr Alexander Kumar is exhibiting breathtaking pictures of a winter spent at Concordia Station, Antarctica. One of the most inhospitable areas of the world, Antarctica was the perfect place for Kumar to investigate the limits of human durability in his research that could help shape a manned mission to Mars. We caught up with the jet-setting doctor to hear how he captured his amazing images.

Could you start off by describing how you came to take these shots?

The exhibition features a selection of images from a series I took over a period of one year. I took them while overwintering in Antarctica where I was conducting human spaceflight research towards a future mission to Mars for the European Space Agency.

With three months of

complete darkness, temperatures of -80° Celsius and nine months of complete isolation, living at Concordia is the closest you can get to being on another planet.

How do you decide what to photograph?

Once I find a topic I question it with my camera until I am satisfied I have gotten beneath its surface to expose its beauty. Sometimes it's by chance.

Certain stories jump out at me, others I stumble upon like a stubborn root in a forest. In these extreme environments, I am walking through God's land and often find myself tripping over miracles and scraps from heaven.

What inspired you to travel to such a remote place and document your experience?

Looking back, a real interest for me was war photography – documenting conflicts, catastrophes and disasters –

Name

Dr Alexander Kumar

Lives Out of a very large suitcase

Camera

Canon 5D mark II
Lenses AF EX 8/3.5 circular fisheye EX DG, 24-70/2.8 IF EX DG HSM, 62mm circular polarising, multicoated filter EX DG and 82mm UV-filter, multicoated EX DG

The Milky Way Galaxy above Antarctica in the winter darkness



working under challenging conditions in austere, extreme and hostile environments.

With my polar photography, Antarctic explorers and photographers Herbert Ponting and Frank Hurley inspired me. Their images struck me down, chilling me to the bone, but at the same time exuding gentle and calming warmth, from the coldest place on Earth.

I had never lived or worked at -80° Celsius before, or used a camera in such conditions. And so, a new challenge was set. In my day job, working as an NHS and international doctor, I am used to dealing with the limits of physiology and life, trying to dodge death and get that "little extra" from it. The same is true with photography. With some careful planning, adaptation, improvisation and luck, I pushed this equipment to its limits to capture some photos of another world.

Can you tell us about the equipment you used?

I used a Canon 5D mark II body, Sigma lenses, filters and a tripod. I quickly learned how to change the settings I needed without having to take off my big down mitts, as frostbite was a very real danger.

Did you use any specific techniques when getting these shots?

I try not to manipulate the images too much. Certainly, in editing, I only "turn up" what is already there. I never add anything to an image.

In Antarctica in winter I found life turned to black and white in the months of darkness. I enjoyed shooting in monochrome, sometimes even leaving in the odd colour to accentuate certain feelings or items.

Can you tell us how you first came to photography?

I grew up in a family of artists. In a strange way, I learned new skills, and attention to framing and composition of things around me, without ever having handled a camera. At 19, while a



Standing on Planet Concordia



Life on Mars

“THEIR IMAGES CHILLED ME TO THE BONE, WHILE EXUDING A GENTLE AND CALMING WARMTH

student, I bought myself a secondhand Canon 500N film camera on eBay, took off to Morocco in the summer and started a passion, curiosity and expensive addiction.

How do you know when you have captured a subject well and it's ready to exhibit?

I know when I have done it justice when I show someone

else the image and they say what I was thinking when I took the picture. For me, a photo's ready when I have answered the questions I posed when I first set eyes or ears on the subject. When I have gotten to the truth... Truth is beauty. My grandfather taught me that.

To find out more about Dr Kumar's work, visit alexanderkumar.com