




James Balog positions his time-lapse camera



# ON THE ICE

Hood Medal-winner James Balog spends his days capturing the earth's vanishing glaciers. We sent John Norris ARPS, camera and pen in hand, to find out how he does it

I AM HANGING FROM A 6MM climbing cord, clipped into a bolt, which has been drilled into a smooth rock face on the side of an Austrian Alp. High above the Stubai Glacier, I've joined James Balog and his assistant Matt Kennedy as they hurry to complete the final stages of installing a time-lapse camera unit on the mountainside.

It's precarious. Balog and I are both leaning out on the same bolt, me to take photographs and him to make the final adjustments to a camera plate. Kennedy, just across from me, has fixed a solar panel to the rock. Both he and his boss are completely calm and absorbed despite the hazardous location.

I glance gingerly down at the seemingly unmoving glacier, the

subject of their desired images.

The sun glints off bare patches of ice below us, but the glacier's upper reaches are coated white from fresh summer snowstorms. At the glacier's terminus there's a green lake of chill water, where in recent years there had been a broad sweep of solid ice. This landscape is not unmoving at all – it is, in fact, in constant change. This is what Balog has come here to record.

Today's work is the continuation of his Extreme Ice Survey (EIS), which was founded eight years ago. His stunning portraits and time-lapse imagery of retreating glaciers were the subject of the Emmy Award-winning film *Chasing Ice* (2012) – and won him the Society's Hood Medal for work



The Stubaai Glacier, now and as it was in 1962

## WILDERNESS PHOTOGRAPHY IS WONDERFUL, BUT THE REAL STORY IS HUMAN IMPACT

produced to raise awareness of an aspect of public benefit or service.

'Art is a heart-based, intuitive reaction to the world, while science is about the analytical, quantitative way of looking at the world,' says Balog. 'Neither one of those forms of perception is complete on its own. This project really had both these elements right from the outset and in fact they have been in all my life's work – I just didn't realise it until I started.'

In the late 1970s and early 80s environmental photographers seemed to Balog to be obsessed with celebrating beautiful wilderness, but he felt they were missing the big story. 'The work of Ansel Adams and Eliot Porter was the imprint that anyone that cared about nature was meant to live by, but we now know that view. Nothing new was going to be said within the framework of "Hey! Isn't Yosemite great and aren't yellow aspen leaves beautiful!"'

'Wilderness photography is wonderful, but the real story is that

wilderness is surrounded by human impact, that there is this constant impact or contact zone, this interface, between human beings and nature. That was the gigantic story of our time and it was not going to go away.'

Balog's past portfolio is both beautiful and thought-provoking, from *Wildlife Requiem*, about people who kill animals for sport, through to his *Humans and Technology* series about how we are losing our biological selves because of the imposition of technology on the way we live. All are quite different, but all touch on how humans are in conflict with nature.

It was while working on a project on America's oldest trees that Balog first started to think about climate change. At the time, he was still a climate-change sceptic, he admits. Then, when a commission for *National Geographic* took him all over the world to shoot glaciers, he learned how scientists had unlocked the mystery of climate change by studying the ice. This research convinced him

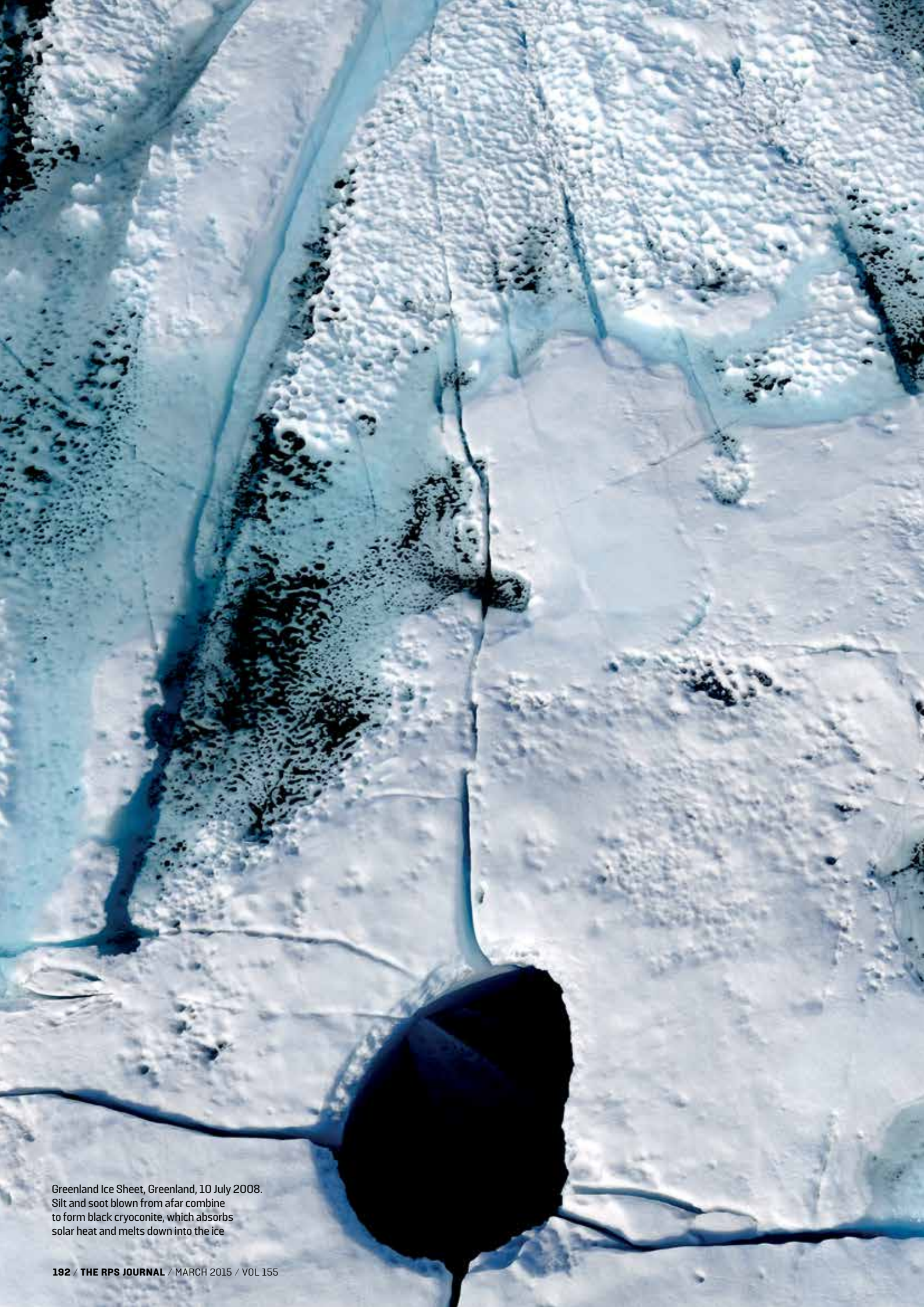
climate change was real – but the challenge was how to illustrate it.

During the *National Geographic* commission, Balog realised it would be revealing to return to some of his locations and do what he calls 'repeats' – that is, matching a present-day shot with those of the past to show change. This led him to wonder about leaving two time-lapse cameras on location. From an initial budget of nearly £300,000 the project is now huge, involving 25 cameras around the world, two additional full-time photographers (including Kennedy), a production manager, a fundraiser and a network of invaluable patrons.

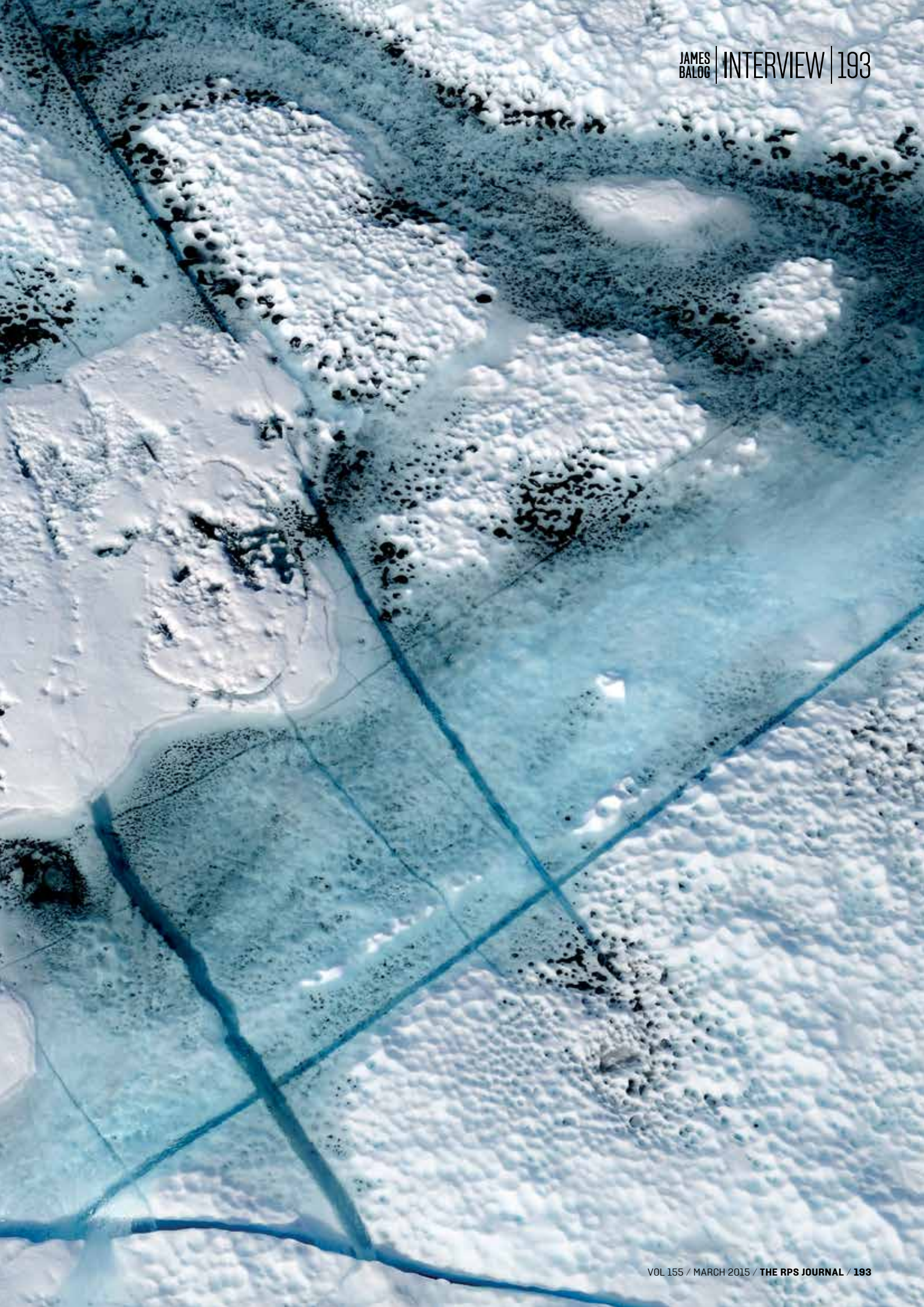
Asked if he was happy with what he and the project have achieved so far, Balog says: 'Sometimes people can talk themselves out of believing, but seeing is believing and the videos we make from the time-lapse images have shown people what is not visible to the naked eye, or the single frame. If we have influenced people's perception of the monumental changes that are



CLOCKWISE FROM ABOVE James Balog heads up the mountain; attaching a device to a chairlift pylon; making checks on the camera power source; the hike to the glacier



Greenland Ice Sheet, Greenland, 10 July 2008.  
Silt and soot blown from afar combine  
to form black cryoconite, which absorbs  
solar heat and melts down into the ice



James Balog rappels into Survey Canyon, looking down at a moulin channel dropping meltwater 2,000 feet into crevasses through the Greenland Ice Sheet



#### ABOUT THE AUTHOR JOHN NORRIS ARPS

John is a member of the Society's Switzerland Chapter, and has been photographing in the mountains of Chamonix, France, for 20 years. His image *Racing the Storm* graced the cover of *The RPS Journal* in March 2014. For more images find his page, John Norris Photography, on Facebook



## ALL THIS WORK ... AND IT IS SO LONG BEFORE YOU KNOW IF YOU HAVE THE SHOTS



### INSIDE BALOG'S CAMERA

The time-lapse cameras used by James Balog's Extreme Ice Survey can withstand temperatures down to minus 40 degrees Celsius, deep snow, winds up to 160 miles per hour, torrential rain and rock falls. They record changes in the glaciers every half-hour, year-round, yielding around 8,000 frames per camera per year.

- ▶ Nikon digital

single-lens reflex cameras

- ▶ Protected by waterproof and dustproof Pelican cases
- ▶ Mounted on Bogen tripod head
- ▶ Fitted with solar panels to collect power that is stored in batteries; customised controllers trigger the cameras only when there is sufficient light
- ▶ Secured against Arctic and Alpine winds by a system of anchors and guy wires

occurring to our planet then we have really accomplished something.'

Out on the rock face the warm afternoon is cooling. Balog and Kennedy each quietly concentrate on completing the installation. Balog checks the tripod head angle and verifies that its framing will capture the information he seeks. Kennedy fiddles with the delicate custom-built timer, consisting of a mass of fine wires and a complex-looking electrical board. Below us at the base of the rock is a large battery charged by the solar panel they fixed to the rock face beside the camera. None of this equipment was off the peg; each bit of kit has been meticulously built by the EIS team to withstand extremes of cold and damp when left unattended for months.

The choice of placement for the cameras is also based on experience. The camera we were fixing in Stubai needed to be above the level of fallen or windblown snow but protected from rocks falling from above. The solar panel must also be orientated for maximum efficiency, and in a protected position. This process of preparation is vital and something the team has now got down to a fine art.

Asking Kennedy, who obviously loves

his work, what the biggest challenge is, he replies: 'Besides the physical challenge of carrying a car battery and all the tools and equipment into the wilds, it is the stress of often being the last person to touch the cameras before we leave them for a year or more. All this work ... and it is so long before you know if you have the shots, or if some part of all this gear has failed.'

The day is done, and we can gently unclip ourselves from the side of the Austrian mountain. Balog and I leave Kennedy to pack up the last few tools and give the camera one last check.

On the long walk down Balog reveals that he feels his whole life had led him to this project. 'The first glacier I ever stepped upon was here in Stubai, on a climbing trip,' he says. 'I was captivated by the stillness and beauty of it at night.'

Despite the complexity of the work he is doing, he has lost none of the joy of photography or of the beauty of the world around him. That, in itself, is inspiring.

See more of James Balog's work on his websites – [extremeicesurvey.org](http://extremeicesurvey.org) and [earthvisioninstitute.org](http://earthvisioninstitute.org) – and to learn more about climate change go to [gettingthepicture.info](http://gettingthepicture.info)