

The James Caird Society Newsletter

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Quest leaves London on the Shackleton–Rowett Expedition in September 1921

'I believe it is in our nature to explore, to reach out into the unknown.'

EHS

To reach out into the unknown



Vanessa travelling into suborbital space (65 miles up) for the first time aboard the Blue Origin rocket-capsule in August 2022 (photo by Blue Origin)

Explorers are a terrible lot, really. In between expeditions, we lie in a self-exiled purgatory, waiting for a call, one that beckons us to take yet another step, prove yet another point, solve another problem; or simply contribute to the debate. While waiting, we usually have something to do on the expedition front – writing, speaking, or just looking forward to what’s next.

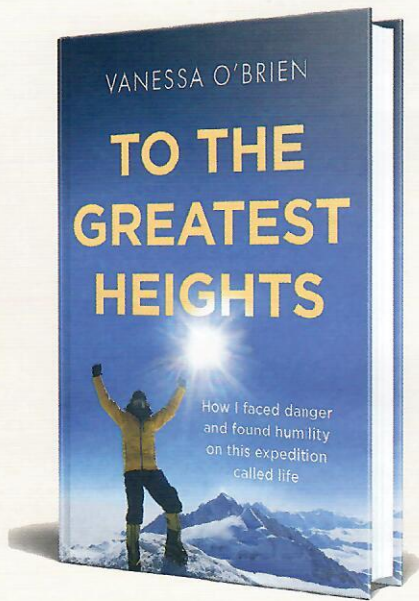
I wrote my memoir *To the Greatest Heights* because I found so much humour in events and situations as they unfolded I simply had to write about them: even Hollywood couldn’t make this up. The book guides readers through what one is capable of and makes them laugh. But it also makes them think because an underdog who succeeds despite everything provides inspiration. Hidden amongst those pages are hard won pearls of wisdom for every reader.

My own current enthusiasm is supporting a new project led by Dr Alasdair Gill FRGS who has set out to

measure Global Atmospheric Plastics. The GAPS survey is the first global scientific attempt to gauge the size, type, transport and distribution of micro- and nano-plastics in the atmosphere. GAPS will do this by collecting direct glacier samples around the globe and analysing them, and they are currently looking for volunteers to help (see www.gaps2024.com). The Scientific and Exploration Society (SES) has just endorsed this mission because of its importance to health. Airborne micro- and nano-plastics break down into the blood, organs and tissues of humans where they can be harmful to fertility and pose an increased cancer risk.

The pace at which the space industry continues to develop is also exciting as is the increasing role private citizens are playing. Dr Peter Fretwell’s keynote speech at May’s dinner (see page 5) and his captivating research on Emperor Penguins in Antarctica has been possible by using synthetic aperture satellite





technology, something he would physically be unable to accomplish otherwise.

The International Space Station (ISS) continues to stage exciting research, particularly around molecular biology (oncology) and fluid dynamics. Protein crystal growth experiments conducted at the ISS have provided insights on a variety of disease treatments from cancer to gum disease. Most recently, a possible cure for the genetic disorder Duchenne Muscle Dystrophy is now in clinical trials thanks to ISS fieldwork.

Understanding many of Earth's hazards to save lives (and reduce damage) may also be done in the future at ISS. The destruction of the village of Thame in Nepal (Tenzing Norgay's ancestral home) is one example. Thame was recently destroyed by an overflow of a glacial lake that led to mudslides. No sooner had its 300 residents recovered from an earthquake, than they were scrambling to save their village. Now a study underway at the ISS will investigate how sand particles, mixed with air and water, behave in microgravity, research which will lead to a better understanding of the hydrodynamics of mudslides.

The qualities required to pursue these investigations through to successful outcomes are the same as those listed by the Boss over a century ago. A successful modern explorer undertakes projects not because they are easy, but because explorers are curious. We take on projects because we have imagination and courage. We do so with faith by asking for God's blessing to develop the patience necessary to balance our abundant enthusiasm, knowing that we cannot fail, unless we give up.

*Vanessa O'Brien FRGS
The First Woman to Reach Extremes
on Land, Sea and Air*

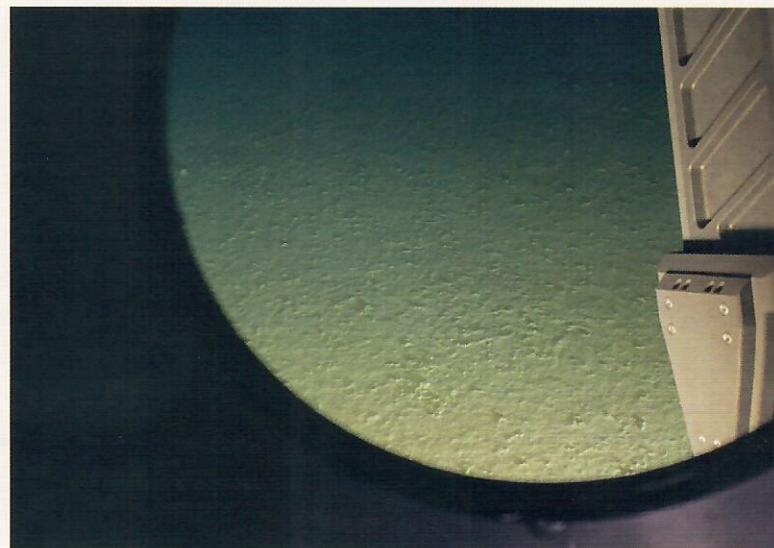
Left: Climbing K2 with Broad Peak in the background (photo Alex Buisse)



Taking the Royal Navy Ensign to the deep



The launch of the submersible, Limiting Factor, to reach the Mariana Trench, 10,984m below the surface of the Pacific Ocean (June 2020)



Bottom of Challenger Deep, the deepest known point of the world's oceans and three times deeper than where Endurance was found