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► **COVER:** 'Breaking the ice' by Tom Wilson, inspired by the review on p331.



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**T**he introduction to the Antarctic Treaty begins as follows: "There are few places in the world where there has never been war, where the environment is fully protected, and where scientific research has priority. But there is a whole continent like this — it is the land the Antarctic Treaty parties call '... a natural reserve, devoted to peace and science'. At the southern end of our world, those who share the challenges of distance and cold to visit the ice-bound continent have developed a tradition of warm cooperation. Such cooperation, unique on this scale, is cemented by the Antarctic Treaty."

The treaty formally came into force on 23rd June 1961. It had been drawn up and signed 2 years earlier by the 12 countries that were active in scientific research in the continent at the time, in recognition of the need not only to protect and conserve this pristine landscape, but also to ensure that Antarctica was used solely for peaceful purposes and to formally enshrine the spirit of scientific cooperation. Forty-five years later, even though the number of signatories has increased to 44, the treaty is still respected and is acknowledged as one of the most successful international accords in operation today.

The success of the treaty means that the science in the region is as inspired as the surroundings — including the study of its microbiology. As expected with its extreme climate, the Antarctic is home to many psychrophilic archaea. On page 331, Rick Cavicchioli reviews our current knowledge of this 'neglected majority', including the molecular mechanisms involved in cold adaptation, and the insights this group of organisms has given us into life both on and beyond Earth.

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