



R. GENDLER/NASA

Star poetry

The Very Small Baseline Group Convenes at The Cat and Fiddle
by Neil Rollinson

A groaning table of empties makes up our Very Small Array — a barley-scented interferometer. Here we can study the cosmos and drink. We tune in to the microwave sky: to the froth at the edge of the universe. We sup in the dusk, everything glows with its own light: the hedgerow, lawn, the atoms inside the glass. The Milky Way sings in a half-inch of Guinness a song of distant past when the world was a moment old. We gather it all in our mugs, in a pub garden on the edge of the moors, looking down on Jodrell Bank: Queen of the red-light district, cocking her huge lug to the mayhem beyond our patch. The bats are in on it, hunting in ultrasound, catching moths in their fangs, while frogs bark in the meadows, one to the other, a vast unfathomable love-song. I finish my pint and add my glass to the phalanx: the more we drink the clearer we see, as any old soak will tell you. I tip back my head to look at the Pleiades and tumble, arse over tit, into the damp grass. I lie in my cups under the bling of the northern sky. I can hear it now, I can see it all clearly, all and nothing, just the whole sky blazing.

Poets paired with astronomers have created 16 new poems, including this one, that form part of a collection of 100 poems about the wonder of the Universe. ■

Dark Matter: Poems of Space

Edited by Maurice Riordan and Jocelyn Bell Burnell

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The pursuit of progress by thinkers and artists became more a wait for a divine spark of inspiration than the steady toil of uncovering that had been accepted by their predecessors. And any means by which that spark could be nurtured was embraced.

To guide readers through the science and culture of this period, Holmes masterfully dips in and out of the life of Joseph Banks. He is an inspired choice. As a curly haired 26-year-old, Banks was aboard HM Bark *Endeavour* on the momentous day in April 1769 when it first glided into sight of Tahiti. Ostensibly Banks was just the expedition's plant collector, but he soon became more fascinated by the island's human inhabitants.

For most of the British crew — young men who had been away from female company for long months — the explorations in Tahiti were of one sort only, with the initial going rate being one ship's nail for one sexual encounter. That rate soon changed — as Holmes describes with gentle skill, the Tahitians were quick to grasp the workings of the market economy, and had a keen eye for the other useful metal objects aboard the ship. Hyperinflation set in, and at one point “there was a crisis when one of the *Endeavour's* crew stole a hundredweight bag of nails, and refused to reveal its whereabouts even after a flogging”.

Banks looked further. He took up Tahitian mistresses too, but systematically recorded the local language, studied their religious systems, and even hinted at the true functional significance of native actions that, at first, seemed to be merely bizarre. Within a few months he had helped set the stage for the modern science of anthropology.

Back in London, Banks's insights, energy and inherited wealth eventually led to him becoming president of the Royal Society. From his headquarters, as Holmes gracefully phrases it, “his gaze swept steadily round the globe like some vast, enquiring lighthouse beam”. His own days of direct discovery were over, but couldn't other like-minded individuals be encouraged to carry on such wondrous, intense investigations?

One of the young men Banks chose to support was Humphry Davy: friend of the Romantic poets, and — in his quick, intense creation of a safe coal-miner's lamp in response to underground disasters — a man who made himself into a perfect exemplar of the new, Romantic

style of discovery. Davy hurried to the mines, spent intense weeks with the miners and then took himself off to an isolated lab where, using his unique genius, he cracked the problem.

Another of Banks's protégés was William Herschel, the immigrant Hanoverian astronomer. Herschel is most famous now for having measured the orbit of Uranus and establishing this body as a planet, which almost became known as planet George to honour King George III. But Herschel also worked out the shape of the Milky Way and the Sun's off-centre position in it, and he discovered infrared radiation.

Although his work relied on the dull accumulation of observational facts, it was the role of sudden insight and genius that Herschel and others emphasized in their written accounts. In Herschel's case, it was true to his character: he had risen in society by transforming his own life and moving to England. Wouldn't he imagine there were fresh realms — new planets, stars beyond our Solar System, light beyond the visible spectrum — to uncover in nature as well?

Our notion of earlier scientists, including Newton, was rewritten to fit this Romantic view. The young poet William Wordsworth, for example, had famously devalued science with his harsh line that when we probe the mechanism of a natural process, “we murder to dissect”. But decades later, as the work of Banks and his protégés became better known, Wordsworth shifted to admire science, seeing Newton as the archetypal Romantic hero: “Voyaging through strange seas of Thought, alone.”

Over time, the simplest Romantic imagery slid away. Few of the hundreds of physicists working today at CERN, the European particle-physics lab near Geneva, Switzerland, must view themselves as voyaging anywhere alone. But the

Romantic era left great legacies. Newton's static Universe was gone, and Herschel's dynamic one — in which stars evolved and the heavens were ever-changing — was in its place. This mutable view was useful for the next notable young man, one Charles Darwin, when he was ready to embark on his own voyage of discovery on HMS *Beagle* in 1831. And even among today's doctoral candidates at CERN, who doesn't hope that maybe, with enough concentration, something very special and very unique could still burst out? ■

David Bodanis is a writer based in London, and author of *Electric Universe*. His forthcoming book is on the Ten Commandments.



Portrait of Joseph Banks in honour of astronomer William Herschel.

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