Encountering the Cosmos from the Celtic Sea

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When I retired from formal academic life, having spent years teaching and researching issues of sustainability and justice in business life, I decided I wanted to devote myself to experience and writing around themes of deep ecology—a move from "bright green" to "deep green". I also wanted to sail more. So I set off in my little and elderly yacht Coral from the south coast of England to the western coast to Ireland, and wrote an account of this voyage in Spindrift: A Wilderness Pilgrimage at Sea.[1] *Two years later I set off again, now clearer that these voyages were in the nature of ecological pilgrimages. This was a voyage over two years that took me to the far north of Scotland, from which I wrote* In Search of Grace: An Ecological Pilgrimage.[2]

A pilgrimage is a journey of moral or spiritual significance, undertaken in response to deep questions in their lives and a yearning for answers from a realm beyond the everyday. A religious pilgrimage can be described as a search for a holy realm and a direct encounter with that which is sacred. An ecological pilgrimage can be seen as a search for an experience of deep participation with the Earth and her creatures.

These pilgrimages taught me much: about sacred places, silence, deep time, and fragility; about the great gestures of Earth in tide and weather. On several occasions, they also took me beyond the confines of Earth to contemplate our place in the cosmos as a whole. The following is an account of such an experience on a night passage across the Celtic Sea, taken from Chapter Sixteen of Spindrift. *My companion on this crossing is disabled with seasickness, and I am on watch for over thirty continuous hours.*

It was midsummer night. At about half past ten the sky was greeny-grey in the twilight, dappled with clouds. By midnight it was quite dark, and the clouds began to clear. In the small hours, stars appeared on the western horizon over the Atlantic. I wondered if the cold front trailing the depression was coming through, and, sure enough, a sharp line between cloud and clear sky moved steadily east. As it passed overhead the wind veered a little more, strengthened, and became gusty. *Coral* picked up more speed, backing southeast as the depression approached; the steady shift of the wind from southeast, to south, to southwest with the arrival of the warm sector; and now the clear skies of polar air behind the cold front. I had experienced the sharp shift in wind direction as each front passed and made the necessary adjustments to course and sails. It is only by staying outdoors for an extended period, in a small boat, or maybe on a mountain, that one gets a chance to experience and be part of this pattern of change. It is familiar and mundane to anyone who understands our weather. But I was certainly not brought up to see and appreciate the patterns of British weather in this way, and I doubt if many people are. In a city it is almost impossible to see the whole sweep of a weather event like this, and in any case, as city dwellers we only need to know if it will be fine or raining. I felt a deep satisfaction in having ridden this system through all its phases.

I watched the stars as they appeared behind the line of clouds, first in the far west and then above me, each one sharp against the dark sky. A satellite moved incongruously among the fixed stars. In time, the clouds cleared the moon as it rose in the southeast; I first saw it shining through the genoa, catching full sight of it only when the bows lifted. It was just after full, still large, although waning. A path of pale yellow shimmered across the inky black sea and gleamed

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charging on into the dark. Foam and phosphorescence were glowing all around and trailing in our wake. For a few moments I found it slightly alarming: I stood in the cockpit looking carefully at the sails, sensing the motion through my legs, wondering about taking another reef. The feel of the boat was right, everything was well balanced and the wind was not overpowering the rig. I relaxed: all was well, she was just going very fast.

Once again I had seen the whole of a weather system pass by: cloud and rain gathering and the wind on the wet decks. The sky to the east lightened with the moonlight, and the stars faded, but overhead they remained bright. I felt very close to them.

I remembered the previous summer's Channel crossing, coming up on deck to find Monica sitting enthralled in the deep, moonless night, as if in a cloud of stars. The wind and rain of the previous few days had left the sky startlingly clear. She told me excitedly about the four planets she had seen near the sun as it set, and later three or four shooting stars. She pointed to another planet shining steady in the southeast,

and exclaimed how clearly the Great Bear stood out. I followed her gaze, seeing how the path of the Milky Way struck a line through the sky, rising in the northeast, striding high overhead and coming down to meet the horizon in the southwest. We laughed together in utter delight as we remembered the poet Drew Dellinger's cry, "I want to write a love letter to the Milky Way!"[3]

That night in the Channel the sky had been completely clear with no moon. But even with a rising moon, while the bright stars of the major constellations took my first attention and wonder, behind and beyond them I could see more and yet more stars. In the end I could make out no black sky between them—a web of faint light filled the night.

After an hour or so the moonlight extinguished all the stars, leaving me musing about what I had seen. Modern cosmological science tells us that as we look up into the stars we are also looking back in time toward the origins of the universe. Incomprehensible billions of years ago, time and space began in the explosion of matter and energy we call the Big Bang. It's impossible to imagine the beginning of everything, but it seems that the universe flared into being and began unfolding into ever-greater diversity and complexity. Galaxies formed, each with billions of stars. The most brilliant of these early stars, after what was a short life in cosmic terms, exploded as colossal supernovae, scattering fragments through their galaxies. Similarly, second- and third-generation stars were born, developed, and exploded, and through the birth and destruction of these primal stars, the heavier elements required for life were forged from hydrogen and helium: carbon, nitrogen, oxygen, calcium, magnesium, and all the others. When one of these primal stars in our galaxy, the Milky Way, exploded, it scattered these elemental remnants far and wide, giving birth to yet another generation of stars. Among these is the one we call the Sun.

Thomas Berry and his cosmologist colleague Brian Swimme emphasize the importance of the universe as story, a story that gives us an understanding of our origins and our place in a wider context.[4] It is a story that draws on the extraordinary, and very recent, unfolding of our cosmological knowledge. We now know that the universe is made up of nearly a hundred billion galaxies, each containing billions of stars. We know that the universe is expanding and that, against all common sense, each of these galaxies, indeed each one of us, is a center of this expansion. The universe and everything in it belong together in an unfolding creative process, the manifestation of a deep patterning, immanent in the whole and reflected at every level. The universe is not just a space where things happen; it is a process of evolution. It is not based on anything like a predetermined design, for nature itself is creative, exploratory. And here we find new meanings for death, violence, and destruction. For it was only out of the destruction of stars that the elements of life could be formed, meaning that at every level the smaller self of the individual dies into and nourishes the larger whole. Destruction and violence are inextricably intertwined with the process of bringing forth more complex forms of order, including life. There is no difference in principle between the self-organizing dynamics of the stars and galaxies and the evolution of life on Earth. They are both part of this creative, evolutionary process, out of which different life forms and then sentience and consciousness emerge.

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After the formation of the Sun the story continues. Planets coalesced out of the dust and rock that circulated the early Sun and became ordered into the

solar system. It may be that several of these planets were so positioned that life might spark into being, but it seems that it was only on Earth that life evolved as a Gaian process.[5] Life on Earth learned to draw on the vast energy of the sun through photosynthesis and use it to increase diversity and modify the planet to make it ever more habitable.[6] Because the light from distant stars takes so long to reach my eye, if I could see far enough into space I would look back over the 10 billion years that it took to bring the Earth into existence. It took another 4.6 billion for the Earth to shape itself into its current complexity and beauty.

At that moment, looking up at that fabulous night sky from my tiny boat in the middle of the night and the middle of the sea, I knew that we humans are the stuff that stars are made of. This story places humans as emerging from the universe as it evolved. It shifts us away from a purely human-centered perspective and places us back in the context of the cosmos.

I remembered Thomas Berry telling me that all beings have their origins in the evolution of the universe and all bring to it their particular sensitivities. All beings, humans included, are part of a community of subjects. What we bring to this community is our particular capacity for reflexive self-awareness. The human intellectual, emotional, and imaginative capacities are part of the universe expressed through the human. We are the universe looking at itself, reflecting on itself, understanding itself, even celebrating itself. But just because we bring this particular gift doesn't make us more important than anything else.

Somewhere in the depths of my memory I found the religious language Saint Thomas Aquinas uses: "the order of the universe is the ultimate and noblest perfection in things." Perfection lies both in wholeness and in differentiation; each part belongs to the whole and articulates the whole in its own unique fashion. So humans take their place within the community of beings.

How can we appreciate this story if we cannot see the stars? As *Coral* charged along through the dark night, I looked up at the gorgeous arc of the universe, back through this ever-retreating web of stars toward its origins and so also to the origins of life on Earth. In the strange starlit darkness of the Celtic Sea I experienced in my heart and guts a deep reality of being part of the whole.

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ENDNOTES:

1. Peter Reason, *Spindrift: A Wilderness Pilgrimage at Sea* (Jessica Kingsley Publishers, 2014). Originally published in Bristol by Vala Publishing Cooperative.

2. Peter Reason, *In Search of Grace: An Ecological Pilgrimage* (Earth Books, 2017).

3. Drew Dellinger, *love letter to the milky way* (Planetize the Movement Press, 2010).

4. Brian Thomas Swimme and Thomas Berry, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era — A Celebration of the Unfolding of the Cosmos* (HarperCollins, 1992).

5. Stephan Harding, *Animate Earth* (Green Books, 2009).

6. Tim Flannery, *Here on Earth: A New Beginning* (Allen Lane, 2011).