

## **Experiencing Gaia at Schumacher College**

Prepared for

*Head, Heart and Hands*

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The Master's Degree in Responsibility and Business Practice was established at the University of Bath in 1997 by Judi Marshall, Gill Coleman and myself, with support and encouragement from Anita Roddick, founder of The Body Shop and pioneer in ethical business. It ran for thirteen years after which a version of the programme was run from Ashridge Management College until quite recently. From the beginning we considered how to design such a degree as a radical participatory educational venture within a prestigious business school. We were adamant that it attend to questions of meaning, value, spirit. In particular we wanted students to study Earth's ecology, to be exposed to radical thinking about the nature of the planet Earth as the originator of all human and non-human wealth. We wanted to explore deep ecology and Gaia theory, and, as far as it possible in the overcrowded British Isles, offer students a 'wilderness experience', an opportunity for a direct experience of the wildness of the natural world.<sup>i</sup>

It soon became clear that Schumacher College in Devon was the place to go; at an early meeting with Satish Kumar, director Anne Phillips, and ecologist Stephan Harding, we realized the extent to which our educational practices were aligned. The College is located within Dartington Estate, in an area where there is both extensive agriculture and open countryside—the River Dart and Dartmoor in particular—although of course there are no places within the British Isles untouched by humans. Anne Phillips was keen to introduce the underlying philosophy of the College, explaining how the day-to-day programme fostered a community of learning, in which participants learned about how to live lightly but still comfortably, including the sourcing of sustainable, healthy, food. Everyone joined with staff in the everyday tasks of cooking, under the direction of Julia Ponsonby; and joining the volunteers cleaning the public areas. All these activities contributed to the development of our own community of inquiry within the course. Satish told me when we first met that the best way to build good relations in a group was for people to cook together; and I will never forget the look on one participant's face when he told us he had never before cleaned a toilet bowl!

In collaboration with the Schumacher teaching staff we designed a week-long experience which included lectures on deep ecology, Gaia theory; and the state of the natural world. Later, when Brian Goodwin joined the Schumacher faculty, he contributed sessions on complexity theory. Once the Schumacher Masters in Holistic Science was established there were many fruitful discussions between the students on the two programmes. And the Schumacher College library was an invaluable resource; participants would spend stimulating time browsing the shelves

But a lot of time was spent outside. We took participants on a night walk through woodland and spent an afternoon meditating by the River Dart. We summoned the Council of All Beings, the ceremony developed by John Seed and Joanna Macy, in which participants come to the council circle to speak as the many diverse beings of their concern for the state of the world. And we spent one whole day in a hike along the

upper reaches of the River Dart, along what must be one of the last remaining stretches of wilderness in England. On this walk we left the footpaths and scrambled over rocks and under branches; we helped each other through bogs and over torrential streams. And under Stephan's guidance we experimented with deep ecology exercises which shifted our experience of the more than human world, helping us directly understand the interconnectedness of all things.

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The River Dart thundered down from the moor toward the sea. It was full after recent heavy rain, the water so high that it lapped over the banks, swirling around the roots of trees and making soggy patches in the grass. In dryer weather the water rushes between the rocks scattered across the riverbed in little cataracts, but on that day, it poured over them in smooth torrents, pounding into the pools below with a deep roar. We had to shout to hear each other over the noise.

We stopped to inspect a chunk of granite that stuck out from the ground by the side of the path with a green luxuriance of moss growing over the top and hanging down each side. Its surface was pitted like a sugar lump, light grey decorated with patches of black lichen. Embedded fragments of quartz, harder than the surrounding rock, protruded slightly and sparkled in the dappled sunlight. A deep fissure ran vertically down the front face of the granite; over time the crack had filled with organic debris marking a dark line, dividing the surface into two planes. The rock leant back into the bank, surrounded by young bramble shoots and bracken with its rear side underground and hidden from our view. Its shape was evocative. A face kept peering out, suggesting itself to me: the fissure, a nose; two blobs of lichen formed eyes; the moss a head of hair. A troll, maybe?

But granite is alive in a more fundamental sense. This rock had broken off from the dome of granite that erupted from deep in the Earth some 300 million years ago to form Dartmoor. The pitted surface and the fissure down the middle were signs of weathering over geological time. It had been tumbled down the valley. Rain had washed over it. Ice had fractured it. The roots of the moss now found their way into hairline cracks, forcing it further apart physically, and secreting acids that helped break it up chemically. As the rock fragmented, exposing new areas to the rain, it gradually dissolved: carbon dioxide from the atmosphere split calcium from the silicate in the granite and combined with it to wash away in a chalk solution, calcium bicarbonate. Some of this we could see, some we knew from our classroom studies prior to the field trip.

I looked around. Everything in the woodlands along the banks of the Dart was part of this process of turning granite into chalk. Small rocks and gravel tumbled against each other in the torrent. Trees seeded clouds, brought rain, keeping the ground and undergrowth damp. Roots broke up and dissolved the granite. Insects and animals pollinated flowers and transported seeds. Bacteria turned vegetable matter into humus, and fungi grew in symbiosis with the roots of the trees, making nutrients more readily available. The river collected the chalk solution and carried it down to the sea.

Stephan asked us to recollect the rest of the story in our imagination. Once in the sea the chalky water was taken up by tiny creatures called coccolithophores. Along with other animals like crabs and molluscs they precipitated solid chalk to form their hard skeletons. When they died, they fell to the bottom of the sea and formed a chalky layer, compressed over time into solid chalk rock. So when we look at the white cliffs of Dover

we are actually looking at solidified atmosphere. This is a continual self-regulating process through which the carbon dioxide that is spewed out of volcanoes thousands of miles away is locked up in the geology of the planet.

Carbon dioxide is, of course, one of the greenhouse gases which traps heat. If too little is present in the atmosphere Earth will freeze. Too much, and the planet will heat up. Either way, it will no longer support life as we know it. We had learned in the classroom that plant life accelerates the physical weathering of granite by up to 1000 times. When it's warmer this 'biologically assisted rock weathering' goes faster; when it is cooler, slower. This self-regulating cycle keeps the temperature of the planet at levels suitable for life.

It was at this point that Stephan bent down, scooped up a handful of granite granules from the side of the path, held them out to us and asked, "Do you realize that these rocks are participating in life on Earth?" As we stared at the fragments—bits of black, shades of grey, white quartz, glistening fragments of mica—the classroom theory took on a deeper meaning. Now we felt the presence of Gaia directly; on our pulse, as poet John Keats puts it.

Gaia theory draws together the disciplines of biology, physics, chemistry, and geology. It offers a view of the Earth as an interacting process, a co-evolution of living things and their environment. The hard line drawn between living and non-living things becomes blurred: we can see that while the granite we were contemplating is not 'alive' in the same sense as a living animal or plant, it is nevertheless 'participating in life on Earth.'

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We reached the end of our walk, footsore and weary, happy to climb into the bus for the trip back through the narrow Devon lanes to Schumacher College. As we had been out all day, we had not been able to contribute to preparing the evening meal. Nevertheless, we were welcomed to steaming vegetarian food prepared by the staff and volunteers. Everyone slept well after the walk down the River Dart.

Embracing Gaia evokes feelings of amazement at the mystery of it all with no need for belief in a transcendental designer god. The Schumacher experience nurtures a wonder that links scientific understanding with a spiritual response, a sense of sacredness immanent in the whole. For many of our participants, this was literally a life changing experience.

**Peter Reason** seeks to link the tradition of nature writing with the ecological crisis of our times, drawing on scientific, ecological, philosophical and spiritual sources. His aim to articulate the human as part of the living ecology of the planet, a plain member of the community of life, rather than as a separate subject in a world of objects. This essay is adapted in part from *Spindrift: A Wilderness Pilgrimage at Sea*. London: Jessica Kingsley Publishers (originally published in Bristol by Vala Publishing Cooperative), 2014. His most recent publication (with artist Sarah Gillespie) is *On Presence: Essays / Drawings* <http://peterreason.eu/OnPresence.html>.

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<sup>i</sup> The Masters in Responsibility and Business Practice, and the educational philosophy that underpinned it, is described in Marshall, Judi, Gill Coleman, and Peter Reason. *Leadership for Sustainability: An Action Research Approach*. Sheffield: Greenleaf, 2011.

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