




# Sands of time

We need an economy that puts nature first. There are signs of change, but we have a long way to go.  **Seabourne Rust**



**W**hen the visionary EF Schumacher wrote his thought-provoking book *Small is Beautiful* in 1973, he produced what was to become a key work in the growing awareness of ecological thought and environmental economics. I have a worn and somewhat tattered paperback copy on my bookshelf, sandwiched between several much larger, glossy publications, yet this little gem continues to speak to me, shouting simple yet profound messages that equally apply to the social problems of today. The issues of relative scale and how we see the world and how to manage its finite resources – one wonders what have we learnt in the last five decades?

These thoughts bounced around my head as our boat bobbed across the swift outgoing tide. It ran aground gently with a hush onto the northern beach of Hokianga Harbour. One by one, our party leapt ashore from the bow, our feet sinking rapidly into the wet sand. Once

we had struggled out of reach of the incoming waves, I called the high school geography students together to share some thoughts. I have always tried to listen to the landscape. This (and every) place on which we stand is special, unique, some would say sacred. Indeed, each single point on this Earth consists of layer on layer of stories rooted in the very depths of time.

Depending on how you look at your subject, different stories will reveal themselves. What one may see, another misses completely. William Blake wrote “to see the world in a grain of sand...”, and those deep words provided my impetus. I asked my students to reach down and touch the ground, hold a handful of the grains that made up the golden dunes that stretched beyond us, spanning from azure ocean to cerulean sky. We could feel the individual grains between our fingers and, on closer inspection, make out tiny orbs of translucent yellow and white.

Each one of these billion grains is on a journey, one that has brought them to this moment, this place in space and time. We delved deeper. If one had a microscope handy (such a powerful tool to open new worlds of scale), each grain of sand would shine like a gem, its surface smooth and rounded. I knew each grain contained mostly quartz, a common mineral, silica dioxide, clear, tough, and durable, used to make glass. Yet where did these come from? I asked the students, who had trouble thinking of any local sources.

To answer this, we must go back thousands of years and travel hundreds of kilometres to the fiery volcanic centre of Te Ika-a-Maui, where those powerful forces exploded forth from deep within our world, producing huge amounts of silica-rich pumice and ignimbrite from Taupō, Tongariro, Taranaki – fallout from eruptions that covered much of the North Island in ash. Through the relentless efforts of water and wind, these rocks were eroded and particles transported down rivers to the sea. Eventually each miniature crystal was abraded shiny and smooth. The further they travelled, I explained, those denser or less resistant grains were left behind, a sorting of sorts.

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Ocean currents and longshore drift brought these tiny voyagers up the coast to Hokianga, and some will continue on, northwards to the place of departing, Te Rerenga Wairua, and beyond. The students nodded, as if to acknowledge the journeys we all must take. I felt encouraged. Someone made a wisecrack, quoting the Chordettes' song, "Mr Sandman, bring me a dream", and we all laughed.

Returning to EF Schumacher, we find in today's consumerist world the race is still very much on to own and gain control of the world's remaining resources and assets. Losing sight of the bigger picture, a holistic ecological world view is often abandoned in the pursuit of the all-powerful dollar. This inevitably feeds competition and conflict, between consumers and companies, neighbours and nations. Schumacher pleaded for study of "economics as if people mattered", and there are signs of change, but we have a long way to go. Could we just step back for a moment and see the trees for the wood? The real gold in the hills (rather than "fool's" gold), or find the true treasure in the sand perhaps?

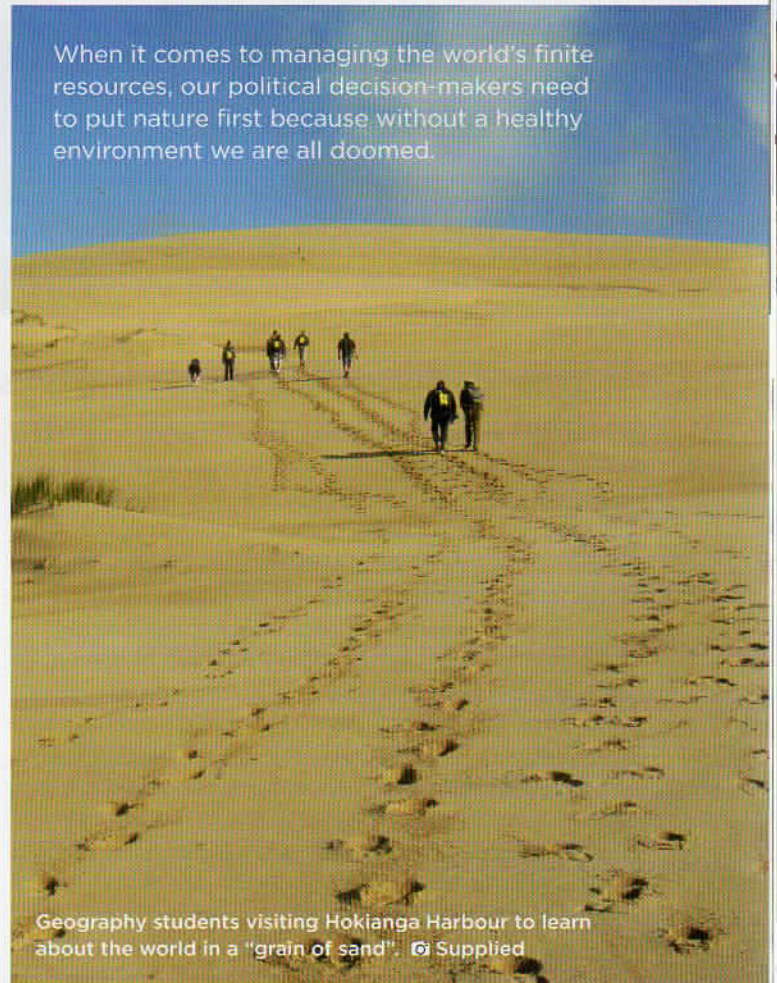
At the time of writing, there are bids to mine the sea floor – for iron-rich sand off the western coast of the

North Island and phosphate on the Chatham Rise to the east of the South Island. It is difficult to convey the potential impacts on a submarine landscape most of us will never see or even dream about. Like those islands that always existed beyond the horizon, yet remained unknown to explorers before those first boats – these so-called "extreme environments" and their inhabitants, perhaps better-termed refuges, actually exist and have done for millennia. Yet does that warrant their exploitation? I and many local people believe we should tread carefully and with caution in these often fragile ecosystems.

Environmental groups such as Forest & Bird are helping to raise awareness of these unique natural refuges, opposing the feverish and relentless pursuit of economic riches at the expense of some of the last untouched places on Earth. Humanity has perhaps not yet reached its fullest potential – surely to do that we must broaden our vision to encompass all scales, and value all life, even on landscapes beyond the horizon in space and time.

We boarded the boat just as the tide was turning.

When it comes to managing the world's finite resources, our political decision-makers need to put nature first because without a healthy environment we are all doomed.



Geography students visiting Hokianga Harbour to learn about the world in a "grain of sand". © Supplied