I

PLANETARY BILDUNG

PLANETARY AWARENESS, SCALE AND ZOOM

Johann Reinhold Forster *Observations Made During a Voyage Round the World* (1778)

Observations Made During a Voyage Round the World (1778) by Johann Reinhold Forster (1729–1798), which describes Captain Cook's second circumnavigation of the globe, is a prime example of contemporary European intellectual *Bildung*. In it, Forster displays the breadth of his knowledge, including his classical education, with abundant references to Pliny, Aristotle, Plato and so on, marking him out as one of the leading intellectual researchers, writers and political figures of his day. In the foreword, he thanks prominent figures for their critical input and cites the sheer range of classical and modern texts upon which he draws as the reason for the delay in publication, but emphasises that this meticulousness was entirely warranted, given that the subject is "nature in its greatest sense; the Earth, the Sea, the Air, the Organic and Animated Creation, and more particularly that class of Beings to which we ourselves belong" (p. 9). His aim was to present a complete history of humanity, making up for the fragmented nature of previous attempts.

Forster's travelogue is, in effect, a retrospective, mirrored version of *Encyclopédie, Ou Dictionnaire Raisonné Des Sciences, Des Arts Et Des Métiers* (1751–1772), a pioneering reference work that applies disciplines such as geology, mineralogy, zoology and comparative linguistics to phenomena observed in a particular region – New Zealand, Tahiti and other islands in the Pacific. In principle, he wanted his accumulated findings to form the basis for a comprehensive understanding of the world. The first chapter of *Observations Made During a Voyage Round the World* begins with a systematic overview of all the continents, their respective positions and differences. He then presents a typology in which the Pacific islands are arranged into groups, followed by a section on mountains, inland waters, oceans, meteors, the atmosphere, and phenomena such as the Northern Lights, which he compares with the southern lights,

a phenomenon he believes the scientists on the expedition were the first to discover and describe. As the title page reads, it is no less than:

> "Observations made during a voyage round the world on physical geography, natural history, and ethic philosophy. Especially on 1. The Earth and its strata, 2. Water and the ocean, 3. The atmosphere, 4. The Changes of the globe, 5. Organic bodies, and 6. The human species." [3]

In keeping with the stylistic and scientific ideals of the period, Forster's account is encyclopaedic but also *planetary* in its scope – the subject is the Earth as a whole, a complete system. For example, adopting a comparative perspective, he describes the Pacific Islands as distinct and autonomous cultures, whereas in the planetary perspective, they are described as fractal parts of the universal history of humanity. The mapping of the Pacific Rim and the islands of the Great Ocean in the 18th century added the final flourish to the map of the world, which is one reason the period was later dubbed "the global century", a term that echoes a "planetary consciousness".[4] Forster's analysis is based on the widespread climate theory of the period, including comparisons between the Pacific Islanders and the Greenlanders or the Danes and the Sámi. He places the fertile, warm and tropical islands at the top of the evolutionary ladder, while the southernmost part of South America, Tierra del Fuego, triggers his compassion, and he hopes higher powers will soon lift the natives of these cold regions up and out of barbarism. Their situation is contrasted with what Forster calls the bright regions of tropical countries, where he "feels the powerful influence of the great fountain of ethereal light, that gladdens every heart" (p. 217). Tahiti is blessed with fertile soil and a warm climate. Combined with its physical features and location in relation to neighbouring islands, conditions are favourable for building a happy nation. Local chiefs are part of civil society, not apart from it. Division of labour is minimal, as is the effort required to satisfy the needs of all. As the indigenous people have all the requisite resources at their disposal, the population is relatively large. Everybody works for the good of society, in the interests of the common weal, motivated by a sincere sense of patriotism (p. 236). The chapter "On the Principles, Moral Ideas, Manners, Refinement, Luxury, and the Condition of Women among the Natives of the South Sea Islands" also singles out Tahiti for its relative equality for women, who are valued and play an active role in all walks of life. The women have a

"beautifully proportioned shape" and a gentle, spiritual nature. They possess a "sprightly turn of mind", sensitivity and vivid imaginations. According to Forster, women enjoy "equality of rights" and have a well-developed social sense that softens men's cruder inclinations, making them a significant factor in the nation's great happiness (p. 218).

The planetary model links the near and particular in the ideas expressed in a single sentence to the great and the universal, and identifies the direct correlations between human phenomena like equality and happiness with the physical nature of the planet. It is an idea born with the opening up of the Pacific Ocean – and the perspective echoes our modern understanding of the Anthropocene. It also conveys an *awareness of scale* sorely needed today when we can no longer predict what, for example, migration and rising sea levels mean for our definition of borders and when the relationship between territory and nationhood, or between local and global, is fluid. According to the *Cambridge Dictionary*, scale is "the relation between the real size of something and its size on a map, model, or diagram". When explorers like Etienne Marchand (1755–1793) and Adam Johann Ritter von Krusenstern (1770–1846) vie to plot and name otherwise insignificant little islands in the Marquesas archipelago during fur expeditions around 1800, it is part of a fierce competition for geopolitical dominance, established via colonies and trading posts the length of the Pacific Rim, with the entire planet as the horizon. Scientific models, maps and literary and artistic works all record and schematise the proportions of things, spaces and phenomena, such as the oceans, rendering them comprehensible and manipulable. Naturally, how they do so has implications, among other things for political responses to the climate crisis and rising sea levels.

So today, when scientists and scholars in the humanities and literature speak of a planetary turn with a focus on scale, it is, in fact, a *return* to an earlier paradigm. Forster was one of the first to apply an interdisciplinary, comparative and planetary method to a world that was understood as global and to the planet as an island whirling through the universe. For both Forster and modern scientists, the planetary perspective encompasses not just human conditions but also, as the title page of his book states, non-human "organic bodies" and the inorganic physical world such as the Earth, the atmosphere, oceans and so on. As Amy J. Elias and Christian Moraru put it in modern terms in *The Planetary Turn* (2015), it is a matter of shifting the conceptual and ethical-critical-political framework "from *globe* as financial-technocratic system toward

Earthrise (1968) – the famous image of our planet taken on the Apollo 8 mission. From this galactic perspective, the blue of the ocean is Earth's most prominent planetary element. The image is a constant in ecocriticism's oscillation between the very distant and the very close, an iconography so dominant as to approach the status of myth, which sees Earth from space as a vulnerable planet swirling through the universe. And yet, at the same time, the viewer is invited to understand themselves as part of a holistic model of the living Earth and the finely balanced ocean currents. The image's rhetorical trick is to suggest an aesthetic fascination with the planet's role in the marvellous or sublime mystery of the universe, while at the same time leading us to believe that we can hold the planet out in an outstretched arm, comprehend it and manipulate it. Following the destruction wrought by our species in the epoch now named the Anthropocene, the human race is in the process of restoring the balance, by releasing wolves in Yellowstone National Park, planting trees in the Scottish Highlands or spreading fertiliser in the Pacific Ocean. The latter is intended to replace the vast quantities of faeces in part of the oceans where huge pods of whales used to live, and will lead to more plankton, more whales, and so on. To create an idea of planetary scale, but also of a human race that still has hope and opportunities to act and intervene in what might otherwise seem like an inconceivably vast cosmic context, the BBC Earth channel uses rapid shifts in perspective between shots of the Earth as a marble and ones that zoom in from the galactic to the local – a savannah in Africa, a bay in California – or even the tiny, like a firefly in Sichuan.

planet as world-ecology".[5] In terms of comparative literature, this means, first, a radical expansion of literature far beyond the Western canon. Planetary literature includes all forms that remain untranslated – and may not even be considered literature under our usual narrow geographical and historical definition. Second, the postcolonial concept of "the other" is expanded and radicalised to include, as the Indian-American literary theorist Gayatri C. Spivak (1942–) puts it, the very basic condition that "The planet is in the species of alterity, belonging to another system; and yet we inhabit it, on loan."[6]

The Planetary Turn has a prophetic or alarmist tone similar to much of the discussion about the Anthropocene, with multiple claims of heralding a whole new epoch in the history of the planet and humanity – possibly the apocalypse. However, Elias and Moraru's anthology is more about contributing to planetary and literary history: How have we – and literature, including writers such as Forster – previously imagined the planet as a holistic system? And how has literature, and its history, helped generate the fundamental ideas about the planet and its oceans that determine the scope for political action today in the face of phenomena such as climate change? This book aims to strike a small blow for the planetary as a complement and counterweight to both ahistoric presentism and climate activism à la Greta Thunberg.[7]

The Planetary Turn makes frequent mention of *Earthrise*, the famous image from the 1968 Apollo 8 mission, to represent the new consciousness of scale that shapes how we perceive the world – and, therefore, how we are changing it. In particular, the 50th anniversary of the 1969 moon landing saw myriad variations of this planetary perspective in news media and popular culture, not only based on NASA satellite photos but also linked to new digital cartographies depicting phenomena such as changes in climate and security policy in the Arctic and Antarctic. *Earthrise* and the iconic photograph of the Earth known as *The Blue Marble* are a way of simulating the planetary perspective without really questioning what happens in the simulation, which mechanisms are implied in this shift of scale, and what it is, therefore, that we are actually seeing.

Scale is a magical mechanism that permeates our culture and alters our perception of distances and sizes without us even noticing. For example, *The Blue Marble* is referenced in two BBC series from 2019 – *The Blue Planet* and *Earth from Space* – both of which draw on older theories of the Earth as a single interconnected system, as described by the environmentalist James E. Lovelock (1919–2022) in his book *Gaia: A New Look at Life on Earth* (1979).