The Anthropocene

The concept of the Anthropocene has been buzzing around for nearly two decades. The first reference to the Anthropocene as a name for the current geological epoch arose in February 2000 during a meeting of the International Geosphere-Biosphere Programme (IGBP) in Cuernavaca, Mexico. On that occasion, Paul J. Crutzen, the Dutch, Nobel Prize-winning atmospheric chemist, and then Vice-Chair of the IGPB, had become increasingly impatient with his colleagues' repetitive use of the word 'Holocene' and exclaimed, 'Stop using the word Holocene. We're not in the Holocene any more. We're in the…the…the…[searching for the right word]…the Anthropocene!'[1] Later that year, Crutzen (b.1933) and Eugene F. Stoermer (1934–2012), limnologist at the University of Michigan who had originally coined the term in the 1980s (in a different context), co-authored the initial scientific publication on the topic in the *IGBP Newsletter*. In it, the authors noted prior recognition of the damage that humans were inflicting on the planet. In 1864, for example, American diplomat and thinker George Perkins Marsh (1801–1882) published his groundbreaking *Man and Nature*; in 1873 Antonio Stoppani (1824–1891), geologist and palaeontologist, referred to the 'anthropozoic' era; while in 1926 Russian geologist Vladimir I. Vernadsky (1863–1945) took note of the 'noosphere', the growing human power over the total biosphere.[2] But Crutzen and Stoermer concluded that the impact had reached geological proportions.

As a new epoch, the notion of the Anthropocene intrigued geologists. In 2009, Jan Zalasiewicz and Mark Williams of the University of Leicester formed the Anthropocene Working Group (AWG) in the Subcommission on Quaternary Stratigraphy within the International Union of Geological Sciences. The AWG comprised almost 40 members, among whom at the time was a South African, Professor Mary Scholes. The aim was to succeed Sir Charles Lyell's Holocene ('recent whole'), suggested in 1833 and formalised in 1885, with the Anthropocene. Numerous meetings and publications aroused considerable excitement as well as debate. Anticipation grew when South Africa hosted the International Geological Congress in Cape Town in August 2016 at which the issue would be discussed. Many believed that the entire geological community would then accept the 'Anthropocene' for the modern geological epoch.

That did not happen. There was not, apparently, sufficient consensus on the markers of the Anthropocene and its commencement date. As Waters et al.[3] explained, 'To constrain the Anthropocene as a potential formal unit within the Geological Time Scale, a spectrum of indicators of anthropogenically induced environmental change' must be present and must include signals that are stratigraphical and include the lithostratigraphical and the biostratigraphical.

By 2019 the matter was no closer to resolution and in May this year, the AWG voted whether to disband because of irreconcilable disagreements within the group, or to proceed with formal recommendation for the Anthropocene with required markers and date. A majority favoured the second option. Thus, the AWG will continue to hunt for a Global Boundary Stratotype Section and Point in the mid-20th century that will pass stratigraphical muster for an interval of geological time.[4] As AWG member, environmental historian John McNeill, observed in a personal email (21 May 2019), it will be a slow process.

However, as a metaphor, the Anthropocene has fired the imagination of people well beyond the geological community. The multidisciplinary literature is large and growing, except, perhaps (regrettably) in and from South Africa where the Anthropocene has a low profile. There have been no themed museum exhibits, art exhibitions, readings, theatre and other cultural engagements to inform South Africans through other disciplines of the many human-induced permanent changes to the earth. In addition to the geological and chemical, these are the multiple aspects of global and climate change, enduring pollution, species mega-extinctions and landscape-scale transformations. The establishment in 2014 of the scholarly journal, *The Anthropocene Review*, led the way for a transdisciplinary conversation. Sociologists, philosophers, environmentalists and historians elsewhere have also written about many of these issues. The Anthropocene has been dissected as a 'capitalocene' and a 'plantationocene', linked to justice and equity as well as to geology.[5]

Not everyone is pleased to have the Anthropocene so widely interpreted in this manner.[6] AWG secretary Colin Waters was concerned that '… the term has come to mean different things as it has spread to different groups, a situation that can only end in headaches … We need a common understanding'[7]. Nonetheless, together with museum displays in Europe, Australia and the USA, there have been multidisciplinary readings and writings, workshops and conferences that have enabled citizens in those places to conceptualise and better understand the era in which we live and also to envision the future. Doing so requires no official scientific approval, and total engagement with the Anthropocene as a whole may become a tool for common action, not solely a description of the state of the planet.[8]

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