Environmental History:Complex Connections around the Constancy of Change*

Jane Carruthers**

In July 1996, Ruth Edgecombe arranged an Environmental History Workshop – the first in South Africa - held in the Colin Webb Hall, University of Natal (as it was then). Pietermaritzburg. This venue memorialises Colin Webb, who was Vice-Principal of the University of Natal from 1984 until his death in 1992. Webb was an inspirational and imaginative historian who energised and mentored many South African scholars in the early 1980s and instigated a school of Natal and Zulu history that has made its mark on Southern African historiography. In this most appropriate location, in her inimitable manner and with characteristic energy, Ruth Edgecombe had assembled a group of local and international environmentalists to tease out some of the methodological and topical issues around environmental The papers presented eventually became a significant book, entitled South Africa's Environmental History Cases and Comparisons, 2 completed after her death (in 2001).³ But while Ruth could organise the invitees and the conversations. she was not able to control the environment itself. July 1996 was extremely cold in South Africa, with snow everywhere, including Pietermaritzburg, and this is rare. Some delegates were iced in in other parts of the country and unable to get to the start of the workshop, a few never arrived at all. The assembled environmental historians were extremely conscious of this reminder of the power of nature. However the intellectual consequences were extremely propitious, the bad weather contributing to the sharing of ideas and general academic camaraderie, and the papers were provocative and stimulating.

Before joining the University of Natal, Ruth Edgecombe spent two years in the Department of History at the University of South Africa. Even today, colleagues who knew her then, pay tribute to her energy, her feisty combination of activist and professional academic, and her keenness to change and improve things. Without

 ^{*} Adapted from a paper presented in the Ruth Edgecombe Environmental Challenges Lecture Series, University of KwaZulu-Natal, Pietermaritzburg, 1 October 2008

Professor Jane Carruthers has been a member of Unisa's Department of History since 1980
She pioneered environmental history in South Africa and is prominent internationally in this
field She has held prestigious Fellowships at the Universities of Cambridge, the Australian
National University and the University of Western Australia She is a highly rated
South African National Research Foundation social scientist and Fellow of the Royal Society
of South Africa Jane's major research interests lie in the fields of environmental history and
the history of conservation biology, but she has also published on comparative South AfricanAustralian history, heritage and nineteenth-century travel and art history. The author would
like to thank the University of KwaZulu-Natal and, in particular, Professor Robert Fincham,
for inviting her to present this important annual lecture in memory of Professor
Ruth Edgecombe Sections of this paper were included in the keynote address presented at the
European Society of Environmental History Conference in Amsterdam in 2007

See obituary, J Benyon, "Colin Webb 1930-1992: An Appreciation", South African Historical Journal, 27, 1992, pp 268-271

S Dovers, R Edgecombe and B Guest (eds), South Africa's Environmental History: Cases and Comparisons (Ohio University Press, Athens, 2003)

³ See obituary, B Guest, "Ruth Edgecombe", South African Historical Journal, 44, 2001, pp 195-196

doubt, Ruth was a remarkable character. She was also an outstanding teacher, initiating a number of innovative courses and programmes and she brought people together at the numerous conferences she organised, often taking a back-seat herself, once they were underway. If there was one thing she thrived upon, it was a challenge. She never shirked from them or regarded them as obstacles, always as opportunities. It is indeed fitting that the title of the Ruth Edgecombe Environmental Challenges Lecture Series celebrates that aspect of her personality.

Using the idea of connections as its over-arching metaphor, the premise of this article is to celebrate the links that Ruth was so adept at making and to explore the nature and challenges of environmental history. It is suggested that the challenges of generating "connections" lie at the core of the sub-discipline Ruth so actively promoted. Ruth's most important book goes by the title *The Constancy of Change*⁴ and although she applied this specifically to the Hlobane Colliery in her publication, it might well be argued that this relates to history in general and to environmental history in particular.

There is nothing but change: it is *the* constant in nature, in society and in ideas. As T.S. Eliot expressed it so beautifully in the well-known lines from "Burnt Norton" in the *Four Quartets*:

Time present and time past Are both perhaps present in time future, And time future contained in time past If all time is eternally present All time is unredeemable

Nothing on earth remains the same, and those who cherish the landscape, fauna and flora of South Africa and wish to understand it, must not be tempted to try to maintain a *status quo*, or to use the mantra of environmental conservation or even sustainability as a means of keeping things the way they like them. Instead, work is required to understand the dynamics and context of past and present change, and to influence future change appropriately within a dynamic social, political and environmental milieu.

The nature of environmental history

The phrase "environmental challenge" generally conjures up the notion of a menace or a threat of a scientific or practical nature. However, the idea of environmental challenge also needs to be considered from the perspective of the humanities. At present, the humanities appear to be in retreat, students flock away from history, classical studies, languages and philosophy to the disciplines that are thought to be more "useful" or vocational. Defining the humanities is difficult by their very nature, but their task, as McClay has expressed it, is to be distinctive from the natural and social sciences, by grasping "human things in human terms ... to understand the human condition from the inside ... we need the humanities in order to understand more fully what it means to be human". And being human involves a connection, a

⁴ R Edgecombe, *The Constancy of Change: A History of Hlobane Colliery, 1898-1998* (The Vryheid [Natal] Railway, Coal and Iron Company, Vryheid, 1998)

W M McClay, "The Burden of the Humanities", Wilson Quarterly, 32, 3, 2008, pp 37-38

Environmental History

relationship with the ever-changing environment in which we exist and this, in itself, is a challenge.

It is the link between humans and nature over time that needs to be emphasised. Environmental history is *the* humanities discipline that lies at the interface between culture and nature. "Connections" are critical to environmental history and provide its direction and its strengths. Donald Worster, one of the most influential historians of our time, has asserted that the connection between nature and culture is central to history and pivotal to any understanding of the past. ⁶

This echoes the opinion of John MacKenzie that "... here are histories which rely on cross fertilisation in techniques, ideas, and modes of operation". Certainly change is constant, the challenge is how best to understand it, rather than to control it. It is my contention that environmental history has a large role to play in this regard, and it does so by connecting constancy and change, by connecting past and present, by connecting humans and culture.

The arrival of environmental history on the international historiographical stage, can be discerned in the 1960s and 1970s, although there were antecedents, particularly from historical geography. In 1962, Rachel Carson published Silent Spring and drew attention to the environmental damage done to promote short-term human interest and inappropriate notions of "progress". This was at the same time when remote places and wild animal populations seemed under "threat" from human over-exploitation, and also when Lynn White and John Passmore philosophised about Judaeo-Christianity being an ecosystem-unfriendly and nature-destroying belief system. Popular ecology vitalised public thinking and many disciplines responded enthusiastically, history among them. Within a Western paradigm, "nature", the "environment" and "environmentalism" quickly became strong tropes and environmental history gave them an overtly intellectual and contextual twist. 10 In a relatively short span of time, environmental history became a vibrant field of study in the United States, and historians in other parts of the world began to take note of it. An early study dealing with Africa, was Anderson and Grove's book of 1984, Conservation in Africa.

⁶ Quoted in: R White, "Environmental History, Ecology and Meaning", *in* "A Round Table: Environmental History", *Journal of American History*, 76, 4, 1990, p 1111

J MacKenzie, "Introduction", Environment and History, 10, 4, 2004, p 371

⁸ R Carson, Silent Spring (Houghton Mifflin, Boston, 2002) First published in 1962

J Passmore, Man's Responsibility for Nature: Ecological Problems and Western Traditions (Charles Scribner's Sons, New York, 1974); L White, "The Historical Roots of our Ecologic Crisis", Science, 155, 10 March 1967, pp 1203-1207

D Worster, "World Without Borders: The Internationalizing of Environmental History", Environmental Review, 6, 1982, pp 8-13; D Worster (ed), The Ends of the Earth (Cambridge University Press, New York, 1988); D Worster, "Nature and the Disorder of History", Environmental History Review, 18, 2, 1994, pp 1-15; A W Crosby, "The Past and Present of Environmental History", American Historical Review, 100, 1995, pp 1177-1189; P Coates, "Clio's New Greenhouse", History Today, August 1996, pp 15-22; S P Hays, "Toward Integration in Environmental History", Pacific Historical Review, 70, 1, 2001, pp 59-68; M A Stewart, "Environmental History: Profile of a Developing Field", The History Teacher, 31, 3, 1998, pp 351-368

¹¹ D Anderson and R Grove (eds), Conservation in Africa: People, Policies and Practice (Cambridge University Press, Cambridge, 1984)

It is necessary to elaborate on some of the connections that environmental history can make. Environmental history has brought past and present together thematically and intellectually. The famous Australian environmental writer, Eric Rolls, referred to the "creative ecology of invasion", ¹² while David Lowenthal, heritage and memory historian, stressed how both "nature and culture generally benefit from creative intermingling". ¹³ The emphasis on creative connection in environmental history extends even to bringing together a wide variety of dedicated professionals and connecting them with the broader public in a way that few other historical fields are able to achieve.

While one would certainly not want to overstate the case, the suggestion is made that the essential attraction and importance of environmental history lie in the connections that it is able to make at many levels of human experience. Sörlin and Warde call it an "umbrella" discipline, 14 but another appropriate simile would be to liken it to ecology, a discipline with which environmental history has strong and obvious connections. Ecology grew out of the realisation that the dominant paradigm of taxonomic science of the late nineteenth century was inadequate to answer the environmental questions that society was beginning to ask. Ecology made connections between a habitat and its plants and animals, it made connections between all biota, and connected past with present. It focused on communities in a living environment at different levels and times and was referred to as a "philosophy", rather than a distinct discipline. 15 It was described as the study of living beings in their surroundings, but also recognising and taking account of their relationship to those surroundings and to each other over time. Environmental history shares many of these characteristics.

Environmental history has given historians an arena in which to broaden the horizons and boundaries of the discipline and make it one of the most important and relevant topics in historical studies today. It has been one well-served with self-reflection. Since 1972, when Roderick Nash gave environmental history its name, justification and first teaching syllabus, ¹⁶ there have been many descriptions of its field of study and arguments for its academic significance. However, despite the disciplinary dissection, the field continues to be regarded as "a subdiscipline that is one of the least understood in modern academia [that claims] more inherent theoretical ambiguities and methodological dilemmas than any other area of history". McNeill alluded to the "chaos" of environmental history in 2003, ¹⁸ while Sörlin and Warde continued to maintain in 2007 that environmental history has

¹² L Robin and T Griffiths, "Environmental History in Australasia", Environment and History, 10, 4, 2004, p 445

D Lowenthal, "Empires and Ecologies: Reflections on Environmental history", in T Griffiths and L Robin (eds), *Ecology and Empire: Environmental History of Settler Societies* (Keele University Press, Edinburgh, 1996), p 235

¹⁴ S Sörlin and P Warde, "The Problem of the Problem of Environmental History: A Re-Reading of the Field", Environmental History, 12, 1, 2007, pp 107-130

¹⁵ P Bowler, The Fontana History of the Environmental Sciences (Fontana, London, 1992)

¹⁶ R Nash, "American Environmental History: A New Teaching Frontier", Pacific Historical Review, 41, 3, 1972, pp 362-372

¹⁷ A L Dalton, Book review: "On African Environmental History: Green Land, Brown Land, Black Land: An Environmental history of Africa, 1800-1990 (Heinemann, Portsmouth – NH, 1999)", Current History, May 2000, pp 231-232

J R McNeill, "Observations on the Nature and Culture of Environmental History", History and Theory, 42, 2003, p 38

"relatively little coherence" and argue for even more reflection on environmental history's absence of engagement with social and political theory.¹⁹

Despite these reservations, environmental history continues to be extremely popular as practitioners turn out an exponentially increasing number of books and articles on a wide variety of themes, many of them to be read by an enthusiast public, as well as a professional audience.²⁰ While many professionals are correctly critical of Jared Diamond as an environmental historian, it is remarkable that his books, *Guns, Germs and Steel* (1998) and *Collapse* (2005), have taken the world by storm.²¹

Linking regional, national and world histories

Environmental history has been the major catalyst for suggesting and providing connections between the pasts of different biological and physical places in the world. It gets us away from the narrow concerns of parochial histories. It has created fresh intellectual links in regional, national, and world histories. It has invigorated and reconfigured much of our understanding about connections between the periphery and the metropole, the developing and the developed world. Refracting our understanding about the past through the prism of the environment around us, has added excitement and relevance to modern historical studies generally, and encouraged innovative research in many previously neglected areas of study. To quote MacKenzie again, the conversations within environmental history "not only allow a more complex reading of the past, but also challenge and revitalise the subject of history itself".²²

Perhaps because of its tendency to reflect on purpose, trajectory and theory, environmental history is also powerful in connecting different national histories and, at times, turning them into a single narrative, as Alfred Crosby has achieved so powerfully with his book, *Ecological Imperialism*.²³ Natural resources exist in disregard of national boundaries and, depending on how they are utilised, have the power both to fracture or to unify communities. Environmental history raises issues that all groups and cultures have in common: issues such as food production, property and power, and thus the connection between historiographies is intense and productive.²⁴ Environmental history is a world or global history and also a transnational one in which the flows of ideas, goods and technologies are identified, as they cross diverse boundaries at different times. It also enriches national histories themselves by including the environmental and international dimension, thus providing fresh insights on older themes. Klingle argues that there is an "artificial split between the local and the global" which environmental history attempts to

¹⁹ Sörlin & Warde, "The Problem of the Problem of Environmental History", p 108

²⁰ Theme Issue: "Environmental history: Nature at Work", History and Theory, 42, December 2003

J Diamond, Guns, Germs and Steel: A Short History of Everybody for the Last 13 000 Years (Vintage, London, 1998); J Diamond, Collapse: How Societies Choose to Fail or Survive (Allen Lane, London, 2005)

²² MacKenzie, "Introduction", p 377

²³ A W Crosby, Ecological Imperialism: The Biological Expansion of Europe, 900-1900 (Cambridge University Press, Cambridge, 1986)

See for example: G H Maddox, Sub-Saharan Africa: An Environmental History (ABC-Clio, Santa Barbara, 2006)

bridge.²⁵ Tom Griffiths thoughtfully calls it "a distinctive endeavour ... [that] ... moves audaciously across time and space and species", that "challenges some of the conventions of history" and "questions the anthropocentric, nationalistic and documentary bases of the discipline".²⁶ Worster refers to this as a "world without borders"²⁷ and has pointed out that the internationalisation of environmental history has been a major contribution since the 1980s.²⁸

To say this is not to suggest that environmental history homogenises – it does not, but it does make connections. National histories remain distinct, but they are highly suggestive to others – the medieval history of the Netherlands for example, with its emphasis on water, resonates with the Indian case of medieval Rajasthan and water management there.²⁹ In the case of Australia, the dominating concern is how European settlers came to terms scientifically, aesthetically and economically with an unusual and strangely fragile landscape and biota, peopled by Aboriginal Australians with strong links to "country" that shapes their identity and nurtures their existence.³⁰ New Zealand has an important contribution to make because of the speed of ecological transformation there.³¹ South Asian environmental history is characterised by investigating the "nature and significance of the colonial experience", related particularly to agrarian history and a strong tradition of subaltern studies.³² While European environmental history is rooted in landscape and urban history and the management of agricultural land,³³ African history is characterised by the colonial encounter and jettisoning notions of an "untouched" wilderness.³⁴ Animal ethics, forest reserves, pollution, and urbanisation however are all environmental histories

²⁵ M Klingle, "Spaces of Consumption in Environmental History", History and Theory, 42, 2003, p 108

²⁶ T Griffiths, "How Many Trees Make a Forest? Cultural Debates about Vegetation Change in Australia", Australian Journal of Botany, 50, 4, 2002, pp 375-389

Worster, "World without Borders", pp 8-13

²⁸ R White, "American Environmental History: The Development of a New Historical Field", Pacific Historical Review, 54, 1985, pp 297-335; R White, "Afterward: Environmental History, Watching a Historical Field Mature", in "A Round Table: Environmental history", Journal of American History, 76, 4, 1990, pp 103-111; R White, "Environmental History, Ecology and Meaning", in "A Round Table: Environmental History", Journal of American History, 76, 4, 1990, pp 1111-1116

²⁹ P J E M van Dam, Vissen in Veenmeren (Historische Vereniging Holland, Hilversum, 1998); M van Tielhof and P J E M van Dam, Waterstaat in Stedenland: Het Hoogheemraadschap van Rijnland voor 1857 (Matrijs, Utrecht, 2006); M Kumar, "Ecology and Traditional Systems of Water Management: Revisiting Medieval Rajasthan", in M Rangarajan (ed), Environmental Issues in India: A Reader (Dorling Kinderslev, Delhi, 2007), pp 70-96

J Dargavel, "Editorial", Special Issue: Australia, Environment and History, 4, 2, 1998, pp 127-128; L Robin, How a Continent Created a Nation (University of New South Wales Press, Sydney, 2007); Robin & Griffiths, "Environmental History in Australasia", pp 439-474

³¹ T Brooking and E Pawson, "Editorial: New Zealand Environmental Histories", Special issue: New Zealand, Environment and History, 9, 4, 2003, pp 375-378

³² M Rangarajan, "Environmental Histories of South Asia: A Review Essay", Special issue: South Asia, Environment and History, 2, 2, 1996, pp 129-143

M Cioc, B-O Linner and M Osborn, "Environmental History Writing in Northern Europe", Environmental History, 5, 3, 2000, pp 396-406; C Ford, "Nature's Fortune: New Directions in the Writing of European Environmental History", The Journal of Modern History, 79, 2007, pp 112-133; M Osborn, "Sowing the Field of British Environmental History", 2001 (see: www.h-net.org/~environ/historiography/british.htm); M Bess, M Cioc and J Sievert, "Environmental History Writing in Southern Europe", Environmental History, 5, 4, 2000, pp 545-556

W Beinart, "African History and Environmental History", African Affairs, 99, 2000, pp 269-302

that link national narratives. Each continent, area or region has specific environmental histories, but because there are connections, they enrich each other and can speak to each other.

Surveying the literature suggests that environmental history has not ignored the dominant historiographies of each geo-region, but it has added a fresh dimension to them.³⁵ Libby Robin's book connecting "nature" with "nation" in Australia makes a powerful statement in this regard,³⁶ as does Nash's seminal *Wilderness and the American Mind.*³⁷ However, one has to agree with McNeill that the nation state is not the only appropriate scale on which to study environmental history.³⁸ Of all the historiographies, environmental history cannot be divorced from transnational concerns and generates links between public history, heritage, frontier history, the history of science, as well as connecting themes and spaces.

Presently, national boundaries seem increasingly porous, a consequence no doubt of globalisation, but in the particular circumstances of Africa, due also to the collapse of the state in many parts of the continent. Permeable national borders also result in interstate migration (refugees included), human and other animal disease transmissions and other consequences that have environmental dimensions for history.

Connecting disciplines and negotiating interdisciplinary spaces

Environmental history also connects disciplines and works within disciplinary interstitial spaces in a way that other fields in history are not able to do. Even though environmental history has remained "history" with a strong narrative thread, it has generated partnerships with a number of other disciplines – the environmental sciences and historical geography are obvious ones, but there are also links with hydrology and engineering, chemistry (pollution), medicine (history of disease), as well as many others. This collaborative and inclusive approach leads to increased understanding of our world and has augmented our appreciation of constancy and change through a multitude of disciplinary lenses held together by history.

While environmental historians of Africa have certainly made use of sources from other disciplines, environmental history, at least in Africa, has remained distinctly "history" and has not become what Dovers once argued that it should be: a vibrant interdisciplinary arena. Each discipline however has strengths and perhaps we should not look forward to environmental history actually diluting the power of history, but rather to agree with Griffiths that the benefit of environmental history is that it prioritises the "historians" traditional concerns of identity, agency, economy and politics using the narrative form. ⁴⁰

³⁵ J Carruthers, "Africa: Histories, Ecologies and Societies", Environment and History, 10, 4, 2004, pp 379-406

³⁶ Robin, How a Continent Created a Nation.

³⁷ R Nash, Wilderness and the American Mind (Yale University Press, New Haven, 1982)

³⁸ McNeill, "Observations on the Nature and Culture of Environmental History", p 38

³⁹ S Dovers, "On the Contribution of Environmental History to Current Debate and Policy", Environment and History, 6, 2, 2000, pp 131-150; E Pawson and S Dovers, "Environmental History and the Challenges of Interdisciplinarity: An Antipodean Perspective", Environment and History, 9, 1, 2003, pp 53-76

⁴⁰ Griffiths, "How Many Trees Make a Forest?"

If environmental history however has remained history, it has been able to interact with other disciplines in a way that has not happened previously – even if one considers that the antecedents of environmental history might lie in the total history of the Annales, or the rich tradition of historical geography, or landscape history, as McNeill suggests. ⁴¹ Pyne reminds us that environmental history is shared territory and that many scholars who look at the environment in historical terms, are not necessarily historians in the academy, although it is the historians who illuminate rather than solve problems. ⁴² In other words, we should not downplay the distinctions between disciplines, but instead recognise and celebrate the transdisciplinary connecting pathways between them.

Perhaps the most important connection that environmental history might make, is to elide what C.P. Snow so famously called the "two cultures". Both Lowenthal and Worster have said that environmental history has the potential to close the gap between the humanities and the sciences, the environmental sciences in particular. Worster has referred to the process as the search for common ground, of finding "open doorways through the walls of specialisation that divide us". Furthermore, he has said: "So we are opening a door in the wall that separates nature from culture, science from history, matter from mind. Where we are arriving is not at some point where all academic boundaries and distinctions disappear ... but one where those boundaries are more permeable than before". Sörlin and Warde also allude to the connection as not being the promotion of full inter- or multi-disciplinarity, but as a "translatory role between disciplines". The excitement is the exploration for that common ground, the thrill of finding those connections, the challenge of the synthesis.

Society, politics and the environment

The further characteristic connection and challenge that I would like to raise is that between environmental history and society at large, and in this respect Ruth Edgecombe also made her mark. As Rangarajan has observed in his excellent and most useful book, *Environmental Issues in India A Reader*, ⁴⁸ we are constantly assailed by environmental concerns in all media and, indeed, in our personal experience. There is no escape as we breathe polluted air, comment on the oddities of recent seasonal weather changes, or recognise vegetation alterations around us. The public and policy makers are affected at a practical level by environmental ideas – ideas around waste, appropriate usage, macro climate change, managing scarce

⁴¹ McNeill, "Observations on the Nature and Culture of Environmental History"

⁴² S Pyne, "Environmental History without Historians", Environmental History, 10, 1, 2005, p 72

S J Gould, The Hedgehog, the Fox, and the Magister's Pox: Mending and Minding the Misconceived Gap between Science and the Humanities (Jonathan Cape, London, 2003); E O Wilson, Consilience: The Unity of Knowledge (Knopf, New York, 1998)

⁴⁴ D Lowenthal, "Environmental history: From Genesis to Apocalypse", History Today, 51, 4, 2001, pp 36-44

D Worster, "The Two Cultures Revisited: Environmental History and the Environmental Sciences", *Environment and History*, 2, 1, 1996, pp 3-14

⁴⁶ Sörlin & Warde, "The Problem of the Problem of Environmental History"

⁴⁷ K Blaser, "The History of Nature and the Nature of History: Stephen Jay Gould on Science, Philosophy and History", The History Teacher, 32, 3, 1999, pp 411-430; Gould, The Hedgehog, the Fox, and the Magister's Pox

⁴⁸ Rangarajan (ed), Environmental Issues in India: A Reader

resources – and many of these issues play out in the political arena. They are, however, generally not sufficiently historicised and greater understanding comes from specific historical context. Environmental history is thus particularly attractive to the public, because it has moral purpose and thus connects intellect with emotion. Environmental history is not the only historical field with passion, energy and an ethical sense that has engaged with public discourse. Social history, too, had an agenda in order to broaden historical studies away from the society's powerful and to consider history from "below", to incorporate those who were exploited. However, as environmental sensitivity grew in the United States and elsewhere in the 1960s, history met the challenge by engaging in the moral discussion about the profligate use of resources and by showing that there was another basement level – that of the exploited resource. Environmental history is political – it speaks to modern concerns and, perhaps of all the historiographies, is the most activist. States are concerned and the profligate use of resources.

The public has become involved in environmental issues that beg historical context through powerful international governmental and non-governmental forums that often make front-page newspaper headlines and engage politicians through the power of environmental books such as the *Limits to Growth*, ⁵² reports such as Brundtland's, ⁵³ and international gatherings such as the Rio Earth Summit (1992)⁵⁴ and the Johannesburg World Summit on Sustainable Development (2002). Environmental history thus speaks to an urgent social issue, one which can perhaps be described as the issue of our time, a priority that is given ever more attention through the debates on global climate change. Even though recent environmental history may lack the over-simplified "green" political agenda that characterised earlier literature, historians are engaged with society in re-evaluating dominant ideologies and outmoded tropes such as "degradation" and "decline", and questioning what is meant by pre-colonial environmental equilibrium. 55 For this reason, more recent environmental history on urban, international and climatic subjects – among others – has been able to give us "more complex readings of the history of science and knowledge".56

The moral dimension continues to connect environmental historians with their societies. Historians have been able to engage with changes in the urgency of environmental concerns and the bookshelves bulge with publications on climate

W Cronon, "A Place for Stories: Nature, History and Narrative", Journal of American History, 78, 4, 1992, pp 1347-1376

⁵⁰ A Taylor, "Unnatural Inequalities: Social and Environmental History", Environmental History, 1, 4, 1996, pp 6-19

⁵¹ C Mauch, N Stoltzfus and D R Weiner (eds), Shades of Green: Environmental Activism around the Globe (Rowman & Littlefield, Lanham – Maryland, 2006)

⁵² D L Meadows and others, The Limits to Growth (Universe Books, New York, 1972, and later editions)

World Commission on Environment and Development, Our Common Future (The Brundtland Report) (Oxford University Press, Oxford, 1987)

⁵⁴ United Nations Conference on Environment and Development (UNCED), Agenda 21: Programme of action for sustainable development; Rio Declaration on Environment and Development; Statement of Forest Principles (United Nations, New York, 1992) See: whc unesco org/

G Maddox, "Degradation Narratives' and 'Population Time Bombs': Myths and Realities about African Environments", in Dovers, Edgecombe & Guest (eds), South Africa's Environmental History, pp 250-258

⁵⁶ Beinart, "African History and Environmental History"

Carruthers

change, genetically modified foods, energy issues, animal ethics and many more.⁵⁷ As Nash puts it, "Environmental history can offer a powerful critique of modern capitalism and colonialism but also challenge the romanticism of pre-modernity and pre-colonial societies and so counter the primitivising claims of some environmental philosophies".⁵⁸

Environmental history has done much to intellectualise the connections between different biota around the world, such as food crops and their diffusion – McCann's *Maize and Grace*⁵⁹ is a wonderful example of this literature – but there are also intellectual issues around the introduction of animals and plants that have had an effect on different parts of the world. Rabbits, for example, are domesticated and eaten in Europe, but are extremely destructive in Australia. Because of the scientific challenges around ecosystem services and resilience, the literature on biological plant transfers has recently burgeoned.⁶⁰ The links between animals, plants and human cultures are made explicit in environmental history. In this regard, acclimatisation is an issue, and the matter of trout, for example, once encouraged to spread throughout the world in suitable places, is now considered in a more complex way. Many of these new histories interrogate the cultural importance of "indigenous" versus introduced or "exotic" animals and plants.⁶¹

In present-day South Africa, despite hesitant developments such as beginning to replace imported cattle breeds like Frieslands with indigenous Nguni animals and ranching with wildlife rather than livestock, the country is still unable to manage its environment within sustainable limits. Monoculture remains the dominant form of agriculture, sugar-cane and other cash crops erode sensitive tropical river valleys, marine resources are plundered in excess of their ability to reproduce, inappropriately sited dams impound transient rivers and soon become silted, soil erosion is not addressed and fragile highveld savannah grassland is converted into plantations of exotic pines and eucalypts that end up as paper for the export market. Urban architecture resembles either New York's skyscrapers, if they are office premises, or Tuscany's villas, if they are domestic homes. Coal-fired power stations pollute the environment, an aspect that Ruth Edgecombe touched upon in her book on Hlobane, a characteristic of South Africa's energy production that seems a constancy and not one set to change.

⁵⁷ There is also increasing collaboration between various branches of knowledge, see for example: R J Scholes and K G Mennnell, *Elephant Management: A Scientific Assessment for South Africa* (Wits University Press, Johannesburg, 2008)

⁵⁸ C Nash, "Environmental History, Philosophy and Difference", Journal of Historical Geography, 26, 1, 2000, pp 23-27

⁵⁹ J C McCann, Maize and Grace: Africa's Encounter with a New World Crop, 1500-2000 (Harvard University Press, Cambridge, 2005)

See, for example: P Coates, American Perceptions of Immigrant and Invasive Species: Strangers on the Land (University of California Press, Berkeley, 2006); W Beinart and L Hughes, Environment and Empire (Oxford University Press, Oxford, 2007); W Beinart and K Middleton, "Plant transfers in historical perspective: A review article", Environment and History, 10, 1, 2004, pp 3-30

⁶¹ Robin, How a Continent Created a Nation

New sources and subjects

Environmental history has also achieved fresh connections between scholars and their sources. Whereas historians once studied documents almost exclusively, environmental historians regard the environment itself as historical evidence, it is itself an historical actor and humans interact with it. One can give the example of the sea in the case of the Netherlands in which culture and history is based around the management of water, or wildlife in Africa, or the arid "Centre" in the case of Australia. Prioritising environmental issues internationally alerted historians to fresh subjects of investigation, issues relating to the exploitation or conservation of natural resources, the effects of climate and specific geographies and the underlying relationship between nature and culture. These topics demand that historians engage with a wider variety of sources than ever before – oral, visual, spatial. In particular, it has been the environment itself that has suggested new narratives about human society and ideas on how better to understand human action.

Environmental history connects ideas and gives birth to new and creative thinking. Doug Weiner reminds us that environmental history grew out of intellectual concerns — wilderness and the American mindset, social and intellectual understandings of nature, the relationship between social systems and environmental change. Connecting humans and nature and tracking their relationships through space, as well as time, have allowed us to think anew about culture, gender, technology, politics, spirituality and the environmental sciences. New questions about the nature of colonialism, of empire, of cultural attitudes towards the environment, are invigorating history and drawing students and the public. There is a good deal of new literature about the connections between indigenous knowledge systems and Western ways of thinking about the environment. Environmental history therefore has a great potential for synthesis and inclusion. As Hays has asserted, the main historical challenge is to track the process by which this interaction between humans and their environment has evolved.

Disciplinary challenges

Interest in the environmental history of Southern Africa, indeed of Africa, is growing, but coverage is uneven and challenges abound. Researching in many parts of Africa is often hard and financially costly work. There are practical challenges relating to problematic access both to localities and to specific archives. There are also intellectual challenges around disciplinary boundaries, particularly anthropology-history and archaeology-history. In addition, there are problems for scholarship within cross-cultural issues and language barriers. Nonetheless, there is a steady stream of fresh innovative research and synthetic works are also appearing. In terms of the latter, the magisterial *Environment and Empire* by William Beinart and Lotte Hughes⁶⁴, and Beinart's *Rise of Conservation in South Africa*, are cases in point.⁶⁵ South African scholarship in environmental history is also appearing in

⁶² D R Weiner, "A Death-Defying Attempt to Articulate a Coherent Definition of Environmental History", Environmental History, 10, 2005, pp 404-420

⁶³ Hays, "Toward Integration in Environmental History", pp 59-68

⁶⁴ Oxford University Press, Oxford, 2007

⁶⁵ The Rise of Conservation in South Africa: Settlers, Livestock, and the Environment 1770-1950 (Oxford University Press, Oxford, 2003) See also: W Beinart and J McGregor (eds), Social History and African Environments (James Currey, Oxford, 2003)

books with international content and reach.⁶⁶ Increasingly, the *South African Historical Journal* includes articles on environmental history themes, each one of which marks a real contribution to the field.⁶⁷

Moreover, inspiring work by gifted individuals plays a large part in driving and encouraging certain historical literatures so that these are the ones that burgeon, sometimes (although not always) at the expense of others. In the United States an expert such as Jim McCann of Boston University – a participant in the 1996 Environmental History Workshop alluded to earlier – has promoted the history of Ethiopia and encouraged a vibrant African Studies Center at Boston. It is a pity that so little African environmental history is written by indigenous Africans and so much by people McNeill refers to as "outsiders". More forthrightly, Jacobs calls them "foreigners" and is critical because she believes that many do not have sufficient African insights into environmental issues. Capacity-building and academic encouragement for black African scholars is a real challenge for future African environmental history.

Enthusiastic and committed scholars like Ruth Edgecombe herself, or Terence Ranger with respect to Zimbabwe, for example, have guided students and led numerous colleagues to contribute to a specific area of study. A number of the authors whose work appears in *South Africa's Environmental History Cases and Comparisons*, were Ruth's students who shared her academic commitment to good scholarship and her social commitment to constructive activism. Her legacy in terms of student support and the inauguration of the School of Environment and Development (SEAD) at the University of KwaZulu-Natal, cannot be over-estimated. The central philosophy of SEAD to bring together the human and biophysical systems to create a meaningful context in which to explore current and future environmental challenges and seek solutions, owes much to her intellectual, academic and social commitment

Conclusion

The greatest environmental challenge of our time is that of global climate change and the realisation that we live in the Age of the Anthropocene. Appreciating that humanity has the capacity to alter the entire future of the planet, has necessitated a shift in our understanding of human agency. Here environmental history has a large part to play.

⁶⁶ See for example: J Carruthers, "Contesting Cultural Landscapes in South Africa and Australia", in D Trigger and G Griffiths (eds), Disputed Territories: Land, Culture and Identity in Settler Societies (University of Hong Kong Press, Hong Kong, 2003), pp 233-268

⁶⁷ See, among other individual contributions in various journal issues: "Feature: Livestock Diseases and Veterinary Science", South African Historical Journal, 58, 2007, pp 2-141; "Special Issue: Environmental History", South African Historical Journal, 53, 2005

⁶⁸ J C McCann, People of the Plow: An Agricultural History of Ethiopia, 1800-1990 (University of Wisconsin Press, Madison, 1995); J C McCann, From Poverty to Famine in Northeast Ethiopia: A Rural History, 1900-1935 (University of Pennsylvania Press, Philadelphia, 1987)

⁶⁹ McNeill, "Observations on the Nature and Culture of Environmental History"

N Jacobs, "Book review: State of the Environment in the Zambezi Basin 2000 (SADC, IUCN, ZRA, and SARDC, Maseru, Lusaka and Harare, 2000)", in H-SAfrica, December, 2001

^{71 &}quot;Special Issue for Terry Ranger", Journal of Southern African Studies, 23, 1997

⁷² P J Crutzen and E F Stoermer, "The 'Anthropocene", Global Change Newsletter, 41, 2000, pp 17-18

The discipline that Ruth Edgecombe did much to encourage has been a major avenue in reconfiguring and revitalising historical thinking about Africa. More than other aspects of history, environmental history has purpose. It is responsive to the concerns of society, it has a strong intellectual thrust and it is relevant to matters of morality and moral judgement. ⁷³ It has these characteristics because, more than any other discipline, it connects at so many intellectual, social, political, economic – and indeed other – levels to respond to the challenge of understanding both constancy and change.



Dorothy Ruth Edgecombe

Ruth Edgecombe was born in 1944. Her first degrees (with distinction) were obtained from Rhodes University between 1965 and 1968, and her PhD from Cambridge University in 1976. Her academic teaching career began at the University of Natal in 1975 and, apart from two years at the University of South Africa, 1977 to 1979, she remained in the Department of History at Pietermaritzburg.

⁷³ Nash, "American Environmental History"

Professor Edgecombe's main research interests had an economic focus: the history of industrialisation and the regional history of KwaZulu-Natal. Both of these topics led her into environmental history and development studies. She was the major catalyst in the establishment of the School of Environment and Development at the university and responsible for an innovative coursework Masters programme, initiated in 1996. Between 1993 and 1996, Ruth Edgecombe was Assistant Dean of Humanities and her great interest in students, particularly the underprivileged, as well as her rapport with them, provided a rewarding phase in her career.

Ruth's academic citizenship was displayed in her attendance of many international and local conferences, and she was involved in the arrangement of a number of successful academic gatherings in Pietermaritzburg, as well as in bringing to South Africa many eminent international scholars. She was a member of the executive of the South African Historical Society, of the Economic History Society of Southern Africa, and served on a number of editorial boards.

Abstract

This article has been adapted from a paper presented in the Ruth Edgecombe Environmental Challenges Lecture Series. University of KwaZulu-Natal. Pietermaritzburg, on 1 October 2008. It outlines the contribution of Professor Edgecombe to the study of environmental history in South Africa. Using the title of Edgecombe's book, The Constancy of Change A History of Hlobane Colliery, 1898-1998 (1998) as the over-arching metaphor, the article celebrates the links that Edgecombe was so adept at making and to explore the nature and challenges of environmental history. The author stresses how nexus between nature and culture – the "connections" between regions, timescales, disciplines and biota – are at the core of the subdiscipline and illuminate previously neglected aspects of human and natural history. As is explained, environmental historians have been able to engage with the changes in the urgency of environmental concerns and to address issues such as climate change, genetically modified foods, animal ethics and other challenges of the twenty-first century.

Opsomming

Omgewingsgeskiedenis: Ingewikkelde Ineenskakeling om Voortdurende Verandering

Hierdie artikel is 'n aangepaste weergawe van 'n lesing wat gehou is as deel van die Ruth Edgecombe Omgewingsuitdagingslesingsreeks, aangebied deur die Universiteit van KwaZulu-Natal, Pietermaritzburg, op 1 Oktober 2008. Dit skets die bydrae van professor Edgecombe tot die bestudering van omgewingsgeskiedenis in Suid-Afrika. Deur die titel van haar boek, *The Constancy of Change A History of Hlobane Colliery, 1898-1998* (1998) as oorkoepelende metafoor te gebruik, vier die artikel die ineenskakelings wat Edgecombe met soveel vaardigheid kon maak om die aard van en uitdagings wat omgewingsgeskiedenis bied, te ondersoek. Die skrywer beklemtoon hoe die verband tussen natuur en kultuur – die verbintenisse tussen streke, tydskale, dissiplines en biota – die kern van die sub-dissipline vorm, en werp die lig op

Environmental History

voorheen afgeskeepte aspekte van menslike en natuurgeskiedenis. Soos verduidelik word, was omgewingsgeskiedkundiges in staat om by veranderinge in terme van die dringendheid van omgewingskwessies soos klimaatsverandering, geneties veranderde voedselsoorte, diere etiek en ander uitdagings van die een-en-twintigste eeu betrokke te raak.

Key words

Environmental history; historiography; interdisciplinary; Ruth Edgecombe.

Sleutelwoorde

Historiografie; interdissiplinêr; omgewingsgeskiedenis; Ruth Edgecombe.