

The challenge of oral history to environmental history

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Abstract: Oral history has much to offer environmental history, yet the possibilities and promises of oral history remain underutilized in environmental history and environmental studies more broadly. Through a reflection on work in environmental history and associated disciplines, this paper presents a case for the strength and versatility of oral history as a key source for environmental history, while reflecting on questions of its reliability and scope. We identify three major insights provided by environmental oral history: into environmental knowledge, practices, and power. We argue that rather than being a weakness, the (inter)subjective and experiential dimensions of oral accounts provide a rich source for situating and interrogating environmental practices, meanings, and power relations. Oral history, moreover, provides a counterweight to a reliance on colonial archives and top-down environmental accounts, and can facilitate a renewal—and deepening—of the radical roots of environmental history. Furthermore, as a research practice, oral history is a promising means of expanding the participatory and grassroots engagement of environmental history. By decentring environmental expertise and eroding the boundaries (both fictive and real) of environmental knowledge production, oral environmental histories can provide key interventions in pursuit of a more just, sustainable world.

Keywords: oral history, environmental reconstruction, conservation, environmental degradation, traditional ecological knowledge, environmental knowledge, disasters, climate change, environmental change.

Introduction

As a practice which grounds knowledge production in the realm of daily life, experiential meaning-making, and material practices, oral history has much to offer the exercise of environmental history. However, for a discipline which has consistently insisted on the inseparability of social relations from their environmental milieu, environmental history remains largely sheltered from the promises and challenges that oral history can provide. Accordingly, the aim of the following paper is to offer a critical reflection on oral history and its potential to inform and become part of environmental history.¹ The paper does this

¹ Paul Thompson suggests that it was in the nineteenth century, through the development of the academic discipline of history, that the previously common use of memory and oral sources fell out of favour. ‘The Voice

through providing a critical review of the existing literature – both from within environmental history and from elsewhere – which has drawn oral history into their discussion of human-environment interactions.² In seeking to develop a future agenda for oral history work in the context of environmental history, the paper seeks to move beyond a recognition of oral history as simply a tool for presenting historical ‘facts’ towards one which can move us closer to more embodied, nuanced and [inter]subjective understandings of environments and environmental change – from large-scale events to the more everyday – and one that might offer a more politically engaged and reflective understanding of environmental movements and ideologies.

Such a situated approach to environmental knowledge can shed new light on the relationship between modes of power and the politics of the environment. Centring oral history in environmental history can (and must) entail the disruption of unreliable and racist colonial environmental narratives—which, it should be added, are alive and well in significant threads of conservationist and developmentalist discourse and practice.³ For a discipline which has provided ample reason to be sceptical of the authoritative nature of environmental pronouncements found in colonial archives, environmental history as a whole still seems to hold oral testimonies at a greater distance than the archives of colonial administrators. In his influential essay “Doing Environmental History”, Donald Worster asserts that the primary objective of environmental history “must be to discover how a whole culture, rather than exceptional voices in it, perceived and valued nature”.⁴ By favouring archival sources, however, environmental history risks reproducing the top-down history Worster and others caution against. Similarly, Mosley argues for an integrated approach to environmental and social history which develops “nuanced accounts of socio-environmental change” through a

of the Past: Oral History’, in R. Perks and A. Thomson (eds), *The Oral History Reader: Second Edition* (London: Routledge, 2016), pp. 33-39. Our intention in this paper is not to trace the longer genealogy of the sub-discipline of oral history. For useful reviews see Alistair Thomson ‘Four Paradigm Transformations in Oral History’, *Oral History Review* 34 (2007): 49-70; Alistair Thomson ‘Unreliable Memories? The Use and Abuse of Oral History’, in W. Lamont (ed.), *Historical Controversies and Historians* (London: UCL Press, 1998), pp. 23-34.

² We do not intend to rehearse the practice of *doing* oral history – these practical methodological issues are expertly covered in the recent Fourth edition of Paul Thompson. *The voice of the past: Oral history*. Oxford university press, 2017. For some specific examples on oral history and environmental history, see <https://www.eh-resources.org/role-of-oral-history-in-environmental-history/>

³ Juanita Sundberg, ‘Placing Race in Environmental Justice Research in Latin America’, *Society & Natural Resources* 21 (7) (2008): 569–82; Sharlene Mollett and Caroline Faria, ‘Messing with Gender in Feminist Political Ecology’, *Geoforum* 45 (March) (2013): 116–25; Carolyn Finney, *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*, (Chapel Hill, North Carolina: UNC Press Books, 2014).

⁴ Donald Woster, ‘Doing Environmental History’, In D. Woster (ed.), *The Ends of the Earth : Perspectives on Modern Environmental History*, p. 303, (Cambridge: Cambridge University Press, 1988).

local and regional analysis—an approach for which oral history is well suited.⁵

Environmental historians set up objectives for the practice that would seem to *demand* oral history, but oral historical approaches remain underutilized.⁶

In this paper, we emphasize the importance of taking oral history narrators seriously as environmental actors and observers, examining the implications for understanding environmental degradation and conservation initiatives. We argue that the (inter)subjective qualities of oral history—often cast as a liability—can be an asset to environmental histories. Oral history can serve as a window into the ways in which people make sense of the world in relation with others, the environmental narratives which are the products of both cultural transmission and individual experience, and the ideologies which shape environmental subjectivities. Finally, we stress that the transformative possibilities of oral history as an environmental-historical practice, and in particular the importance of challenging colonial environmental knowledges. Oral history has the potential to destabilize the boundaries between “expert” and “informant”, and between environmental practice and environmental knowledge production. It has therefore been embraced by scholars who seek a more inclusive approach to conservation, as well as by scholar-activists working in alliance with grassroots movements. Many of the scholars we review here are outside of the domain of narrowly-defined environmental history, but their work—along with that of environmental historians who have centred oral history in their undertakings—has the potential to inform, expand, and enliven environmental history.

We distinguish three interlinking scales to this contribution: *knowledge*, *practices*, and *power*.⁷ Whilst we see these as interlinked rather than distinct, they offer a useful analytic framing to our discussion. At the level of *knowledge*, we see how oral histories can provide empirical detail on particular events, species or wider environmental phenomena. Reviewing work which has drawn on oral history as a rich source of empirical data on past environments, we emphasize that oral testimonies can stand along other more-widely used sources in environmental history, providing important insights on the material conditions of past environments. But people are not detached observers of their environment; they also active agents and participants. Therefore, inseparable from our focus on knowledge, we see

⁵ Stephen Mosley, ‘Common Ground: Integrating Social and Environmental History’, *Journal of social history* **39** (2006): 915-33.

⁶ Mosley, ‘Common Ground’, p. 922.

⁷ This framing is adapted from Berkes: Fikret Berkes. *Sacred Ecology*: Routledge, 2012).

oral histories as providing contextual information on *practices* – that is how people (ab)use, interact with, and experience their environment and particular aspects of it. The experiential, embodied, and situated element of human-environmental practices are an asset of oral testimonies, rather than a liability. Indeed, we argue that oral informants are no more parochial, and no less trustworthy, than written accounts in a colonial archive, but oral testimonies rarely contain the same pretensions to universal truth.

Closely related to knowledge and practices we see *power*, by which we signal that oral testimonies variously contest and replicate the power-laden narratives by which people make sense of and interpret environments past and present. Environmental historians have productively engaged with the narratives as a form of environmental meaning making shaped by, and implicated in, power relations.⁸ Indeed, oral histories are a rich source of such environmental narratives, and can provide an important alternative to dominant narratives found in archives and scientific documents—including narratives of environmental degradation used to justify colonial control over land and resources.⁹ A key focus of our intervention, therefore, is the question of *what counts* as environmental knowledge. Here, we note that the neglect of oral histories risks continuing racialized, classed and gendered exclusions which have shaped the archives and annals of authoritative environmental knowledge.

Finally, we reflect on environmental oral history as a practice in itself—and one that has the potential to shift environmental history towards a more participatory and transformative approach. Asymmetrical aspects of human-environmental relations - particularly in terms of race, class, gender, and coloniality - are challenged or reified by environmental meaning-making practices, and oral history is no exception. The challenge that oral history offers goes beyond a (necessary) call for environmental history to bring in voices and subjects which have often been excluded or minimized. Oral history challenges environmental history to build upon its roots in labour history, while engaging more centrally with grassroots movements for a more sustainable, just, and equitable world. It is not our purpose here to determine, or even predict, the routes that such engagements might take. Rather, we hope to share our conviction that environmental oral histories are a worthwhile and necessary

⁸ William Cronon, 'A Place for Stories: Nature, History, and Narrative', *The Journal of American History* 4 (1992): 1347–1376.

⁹ James C. McCann, 'The Plow and the Forest: Narratives of Deforestation in Ethiopia, 1840-1992', *Environmental History* 2(2) (1997): 138–159.

endeavour, capable of enriching the discipline of environmental history, while broadening its political and practical relevance.

Knowledge: past environments and environmental change

Perhaps the most obvious utilisation of oral history has been within the attempt to document past environments. Whilst there have been many examples of the value of oral history in this regard, it has gained particular traction in recent years within the wider discussion of “shifting baseline syndrome” (SBS) which questions the nature and veracity of the baselines with which we might trace environmental change as each generation utilises their own, new, baseline data and hence under-represents longer-term changes.¹⁰ As Phelan notes: “when access to data is otherwise not available...oral history proves an invaluable tool in establishing a retrospective analysis of resource use”.¹¹ Perhaps one of the most voluminous areas of research utilising oral histories in this way is that seeking to uncover and record ‘ecological knowledge’. Whilst the nomenclature in this field has varied - with appellations such as ‘Traditional Ecological Knowledge’ (TEK), ‘local ecological knowledge’ (LEK) and ‘indigenous ecological knowledge’ – it has shared a commitment to recording understandings of the environment.¹² Moreover, such oral histories might be used by environmental historians to both interrogate *and* critique the SBS concept. Wu *et al* note that the ecological knowledge contained within oral histories “may help build cross-generational bridges to traditional practices” – that is explore, and potentially overcome, the concern that individuals fail to pass on their experience and perceptions to future generations, whilst others have noted the need to move beyond a concern for the perceived ‘inaccuracy’ of oral accounts to consider the [mis]interpretation in researchers’ use of them.¹³

¹⁰ Steve Nicholls, *Paradise Found: Nature in America at the Time of Discovery*: University of Chicago Press, 2009); D Pauly, ‘Anecdotes and the Shifting Baseline Syndrome of Fisheries’, *Trends in Ecology and Evolution* **10** (1995): 430.

¹¹ Michael Phelan, ‘Sciaenid Aggregations in Northern Australia: An Example of Successful Outcomes through Collaborative Research’, *Fisheries Centre Research Reports* (2001): 100.

¹² Fikret Berkes, Carl Folke and Madhav Gadgil, ‘Traditional Ecological Knowledge, Biodiversity, Resilience and Sustainability’, *Biodiversity Conservation* (Springer, 1995), pp. 281-99; Per Olsson and Carl Folke, ‘Local Ecological Knowledge and Institutional Dynamics for Ecosystem Management: A Study of Lake Racken Watershed, Sweden’, *Ecosystems* **4** (2001): 85-104; Marc G Stevenson, ‘Indigenous Knowledge in Environmental Assessment’, *Arctic* (1996): 278-91.

¹³ Tong Wu, Michael Petriello, Yeon-Su Kim ‘Shifting baseline syndrome as a barrier to ecological restoration in the American Southwest’ *Ecological Restoration* **29** (2011): 213-215; Tim Daw “Shifting baselines and memory illusions: what should we worry about when inferring trends from resource user interviews?.” *Animal Conservation* **13** (2010): 534-535; Rob Burton and Mark Riley, ‘Traditional Ecological Knowledge from the internet? The case of hay meadows in Europe’. *Land Use Policy*, **70** (2018):334-346.

The governance of marine environments has been an area where oral history research has proved fruitful. One of the earliest contributions came from Johannes, who interviewed native fishers of the Palau Islands who, he argued, were the ‘uncounted individuals’ but whom offered important knowledge on fishing activities and patterns.¹⁴ Johannes attends to the issue of the ‘reliability’ of oral history from the perspective of a marine biologist, noting that respondents exhibited detailed understanding of aspects such as fish stocks, but were happy to admit where there were areas where they had no knowledge or understanding.¹⁵ Sáenz-Arroyo and Revollo Fernandez provide a detailed account of this renewed interest in oral history for environmental reconstruction, and argue that science alone is unable to tell us about changes in fisheries, concluding that to help in this endeavour “there is an entire specialty in history known as oral history”.¹⁶ They draw on what they refer to as the ‘anecdotes’ of three generations of fishers alongside old documents and naturalists’ observations to consider the exploitation and decline of the Gulf grouper. Focussing on fishery from Baja California, Mexico, Sáenz-Arroyo and Revollo-Fernández look at historic fish numbers and draw the conclusion that:

“It is an unnecessary hindrance to continue believing that fishers' memories tend to exaggerate past catches. If the survey questions are designed properly, fishers' recollection is probably one of the most accurate tools available to understand how abundant populations were in the recent past” .¹⁷

Adding to this clear recognition of oral histories being able to contribute to the discussion of fish stocks, Jung *et al* note the need to consider the potential value of oral histories from those with a more transitory engagement with these marine environments.¹⁸ Focussing on anglers and divers interacting with the environment of Port Phillip Bay, Australia they examined perceptions of change, noting a perception of overall condition of the bay, and very specific

¹⁴ Robert Earle Johannes. *Words of the Lagoon: Fishing and Marine Lore in the Palau District of Micronesia*: Univ of California Press, 1981).

¹⁵ In reflecting on the wider use of oral histories within fisheries research, Thurstan *et al* note that Johannes’ work was somewhat of a return to the use of fishers’ oral histories, which had been used by scientists in the nineteenth century, but had fallen out of favour to predictive models from ecological surveys in the twentieth century. Ruth H. Thurstan, Sarah M. Buckley and John M. Pandolfi, ‘Oral Histories: Informing Natural Resource Management Using Perceptions of the Past’, (2016): 155-73.

¹⁶ Andrea Sáenz-Arroyo and Daniel Revollo-Fernández, ‘Local Ecological Knowledge Concur with Fishing Statistics: An Example from the Abalone Fishery in Baja California, Mexico’, *Marine Policy* 71 (2016): 217-21.

¹⁷ Sáenz-Arroyo and Revollo-Fernández, ‘Local Ecological Knowledge Concur with Fishing Statistics: An Example from the Abalone Fishery in Baja California, Mexico’.

¹⁸ Christian A Jung et al., ‘Perceptions of Environmental Change over More Than Six Decades in Two Groups of People Interacting with the Environment of Port Phillip Bay, Australia’, *Ocean & coastal management* 54 (2011): 93-99.

observations relating to a decline in scallop (*Pecten fumatus*) snapper (*Pagrus auratus*) flathead species (*Platycephalus* spp.) associated with the practice of dredging from the 1960s onwards.

Beyond the sea, oral histories have been drawn upon in the study of animals and these studies help illustrate how oral history can be useful not only in considering themes of species abundance, but also in giving important contextualisation to these discussions. Mallory used oral histories to collect LEK from residents of three High Arctic communities in eastern Canada relating to the decline of the ivory gull (*Pagophila eburnea*).¹⁹ Oral histories were collected from life-long residents, and noted a decline in the sightings of these birds over time. The authors combined these sources with evidence from local wildlife officers' aerial surveys of known colonies to bring forward a more general observation that the species has declined across its Canadian range. Bird *et al* (2003) focused on the conservation of sea turtles, and rather than using oral histories to monitor decline, they focus on their importance in helping conservationists better understand the cultural motivations for sea turtle exploitation as well as a fuller appreciation of the movements and breeding behaviour of turtles.²⁰ In a similar vein, Lemelin *et al* worked with the Cree people of the Hudson Bay lowlands of northern Ontario to consider the ways in which their understandings may contribute to the conservation of the Polar bear.²¹ They conclude that 'Cree knowledge' compliments previously published information, but offers new contextual observations on how these bears prey on beaver and co-exist in overlapping territories alongside black bears without aggressive behaviour and make recommendations for how this might be integrated into conservation plans.

Such contextualisation of environmental change provided by oral histories is also noted for the broader habitat of the Guanarteme dune system (Canary Islands, Spain), where Santana-Cordero *et al* undertook interviews with older people who had memories of the change, and in some cases disappearance, of the dune system. At one level, they use oral histories to 'validate' (after Robertson and McGee 2003) other historical sources. At another level, however, they show how adjacent narratives of events such as expansion of the nearby city,

¹⁹ Mark L Mallory *et al.*, 'Local Ecological Knowledge of Ivory Gull Declines in Arctic Canada', *Arctic* (2003): 293-98.

²⁰ Kristin. E. Bird, Wallace. J. Nichols and C. Tambiah, 'The Value of Local Knowledge in Sea Turtle Conservation: A Case from Baja California, Mexico', *University of British Columbia Fisheries Centre Research Reports* **11** (2003): 178-83.

²¹ Raynald Harvey Lemelin *et al.*, 'Wabusk of the Omushkegouk: Cree-Polar Bear (*Ursus Maritimus*) Interactions in Northern Ontario', *Human Ecology* **38** (2010): 803-15.

allows specific sites of extraction to be identified (which are, in turn, followed up with aerial photo interpretation and measurement). Here, oral history is not seen as a source simply to be overlaid onto other sources, but as a starting point for interrogation, directing where the search for other sources of information should proceed to. Taking a more technical approach to past environments, Showers and Malahleha consider whether oral history methodologies might be used for ‘historical environmental assessment’ of soil conservation projects in 1930’s and 1940’s Lesotho (Africa). They found elderly informants with memories of the conditions of environments in the period, and were able to provide detail on their own evaluation of the conservation measures. They note, in particular, that such oral histories allow a new interpretation of the historical record, from which local concerns around the projects has been omitted.²²

Despite the growth of environmental history research relating to climate change, the development of “oral history projects concerned with such issues has been surprisingly slow”.²³ Early work in this mould focussed on using oral histories to ascertain more locally-experienced changes to climate. Spink focussed on oral testimonies from Inuit communities recorded by early arctic travellers to isolate evidence of isostatic rebound and sea level change.²⁴ Cruickshank provides a thoroughgoing anthropological investigation of the Yukon peoples’ oral accounts, reflecting on the multiple ways that they might inform discussions of climate change:

“Observations are made over a lifetime. Hunting peoples carefully study animal and plant life cycles, topography, seasonal changes and mineral resources. Elders speaking about landscape, climate and ecological changes are usually basing their observations on a lifetime of experience. In contrast, because much scientific research in the north is university based, it is organized around short summer field seasons. The long-term observations included in oral accounts provide important perspectives on the questions scientists are studying.”²⁵

Two key contributions of oral histories can be noted here. First, they may provide information where no other data sources exist, and second, they provide the microscale detail

²² Kate B. Showers and Gwendolyn M. Malahleha, ‘Oral Evidence in Historical Environmental Impact Assessment: Soil Conservation in Lesotho in the 1930s and 1940s’, *Journal of Southern African Studies* **18** (1992): 276-96.

²³ Paul Thompson, *The Voice of the Past: Oral History*: Oxford university press, 2017), p.141

²⁴ John Spink, ‘Historic Eskimo Awareness of Past Changes in Sea Level’, *The Musk-Ox* **5** (1969): 37-50.

²⁵ Julie Cruickshank, ‘Oral and Written Interpretations of the Past’, *Reading Voices: Oral and Written Interpretations of the Yukon’s Past*. (Vancouver, British Columbia: Douglas and McIntyre, 1991), pp. 11-17

of change that may not be picked up in the broader records of climate change. Nichols *et al*, for example, collected oral histories from sixteen Inuvialuit community members around Sachs Harbour, Northwest Territories (Canada), which provided distinct evidence on local changes such as multiyear ice distribution, first-year ice thickness, and ice breakup dates.²⁶ The information presented within these oral histories, Nichols *et al* conclude, provided more spatially detailed as well as longer-term data than available through scientific records.²⁷ This discussion of oral histories augmenting scientific records and narratives is also seen in Orlove *et al*'s exploration of weather knowledge of Andean potato farmers. They explore how farmers believing that the Pleiades - a star cluster in the constellation Taurus - may be used to forecast the timing and quantity of precipitation that will fall in the rainy season some time later.²⁸ Orlove *et al* note how their centuries-old methods of seasonal rain forecasting show a clear understanding of the likely regularity of El Niño events – something which has only been more fully understood by scientists within the last 200 years.²⁹ Similarly, those seeking to chart changes in rainfall and drought over longer time horizons (e.g. Verschuren, Laird, and Cumming 2000) have drawn upon oral traditions as evidence of the importance of periods of drought in pre-colonial history of east Africa³⁰ and to verify their lake-level and salinity fluctuations of Lake Naivasha (Kenya).

Building on such observations, authors such as Fast and Berkes moved the discussion toward a consideration of climate variability.³¹ Working with Inuit in the Canadian North they examined how climate changes may make their livelihoods more vulnerable to change. They observed how a greater frequency of extreme weather events had been observed through changes to resources available to the Inuit people.³² In later research, Riedlinger and Berkes noted how such knowledge – gained first-hand by Inuit communities - might be used as a

²⁶ Theresa Nichols et al., 'Climate Change and Sea Ice: Local Observations from the Canadian Western Arctic', *Arctic* (2004): 68-79.

²⁷ Ibid.

²⁸ Benjamin Orlove, John Chiang and Mark Cane, 'Ethnoclimatology in the Andes', *American Scientist* **90** (2002): 428-35; Benjamin S Orlove, John CH Chiang and Mark A Cane, 'Forecasting Andean Rainfall and Crop Yield from the Influence of El Niño on Pleiades Visibility', *Nature* **403** (2000): 68-71.

²⁹ 'Forecasting Andean Rainfall and Crop Yield from the Influence of El Niño on Pleiades Visibility'. Similar accounts of weather Lore are recorded amongst Samoan communities in relation to tropical cyclones - P Lefale, 'A Samoan Perspective on the Role of Traditional Knowledge in Adapting Our Understanding of Climate Change', in E. Helander and T. Mustonen (eds), *Snowscapes, Dreamscapes: Snowchange Book on Community Voices of Change* (Tampere: Tampere Polytechnic, 2003), pp. 495-515.

³⁰ Dirk Verschuren, Kathleen R Laird and Brian F Cumming, 'Rainfall and Drought in Equatorial East Africa During the Past 1,100 Years', *Nature* **403** (2000): 410-14.

³¹ Helen Fast and Fikret Berkes, 'Climate Change, Northern Subsistence and Land-Based Economies', *Canada country study: Climate impacts and adaptation* **8** (1998): 205-26.

³² Ibid.

climate history record when conjoined with meteorological station data and a baseline from which to chart change.³³ Taking a similar approach of bringing oral histories of Inuit communities into conversation with scientific data (from an operational weather station), Gearheard *et al* considered wind at Clyde River, Nunavut, Canada.³⁴ They observed that Inuit watched wind patterns closely and noted three discernible changes over recent decades: specially relating to wind speed, wind variability and wind direction. Such observations provide information not noted in the local meteorological station data and have the potential, ultimately, to re-evaluate the arctic system.³⁵

The aforementioned scholarship demonstrates the great utility and relevance of oral history as part of the methodological toolkit of researchers who are attempting to reconstruct past environments, events, and processes. This growing body of work within environmental history, environmental studies, and other disciplines has demonstrated the usefulness of oral testimonies from a variety of contexts as important sources on past environments and environmental change. Such research presents a convincing case for researchers to take oral testimonies seriously as sources of data with relevance that extends far beyond narrowly-defined social science. Yet oral histories are far richer than an additional source for “data” about past environments. The promise of oral history, we argue, also rests in its potential as a means of understanding how humans *relate to, understand, and shape* their environments. Put differently, oral history has been powerfully used as a means of examining the practices and experiences which constitute human-environmental relations.

Practices: environments lived and experienced

As Abrams succinctly notes, oral history is not just the process of recording recollections of past events, but is “also the product of that interview, the narrative account of past events” and as Summerfield concurs: “Oral history today is less a quest for objective eye-witness accounts in which the narrator provides the historian with data for interpretation, and more a means to engage with experience, subjectivity, and historical imagination”.³⁶ The questions that can be asked of and through environmental oral histories, therefore, are not simply

³³ Dyanna Riedlinger and Fikret Berkes, ‘Contributions of Traditional Knowledge to Understanding Climate Change in the Canadian Arctic’, *Polar Record* 37 (2001): 315-28.

³⁴ Shari Gearheard et al., ‘Linking Inuit Knowledge and Meteorological Station Observations to Understand Changing Wind Patterns at Clyde River, Nunavut’, *Climatic Change* 100 (2009): 267-94.

³⁵ *Ibid.*

³⁶ Lynn Abrams, ‘Oral History Theory’, *Abingdon and New York: Routledge* (2010); Penny Summerfield, ‘Oral History as an Autobiographical Practice’, *Miranda* (2016).

questions of the reliability of environmental *data*. Rather, oral testimonies are accounts of the dynamic interactions and relationships of people with the environment. In this section, we examine oral histories as an important window into the lived environment—into environmental practices and experiences.

In one important study which both uses and reflects on oral history as a source, Dahlberg and Blaikie integrate oral histories with more conventional environmental methodologies to construct a village-level history of drought and rainfall change in Botswana. Oral history accounts of rainfall and drought, they argue, can converge with findings from scientific sources, but care is needed in relating the data from oral and official accounts. They note that in terms of rainfall, scientists' findings of little long-term change seem to contradict villagers' perceptions of a decline. Dahlberg and Blaikie suggest that villagers' perceptions of a decline in rainfall reflects varying vulnerability shaped by changing livelihood strategies and socio-environmental factors, and argue that the decline "may well be a reality" for respondents" even though it contradicts scientific measurements of rainfall.³⁷ Consequently, they model a complex socio-environmental investigation of drought using oral history—one in which social relations, structural forces, and environmental practices are just as consequential as rainfall totals. As Dahlberg & Blaikie's work indicates, indicators of environmental change which are frequently viewed in absolute terms—such as drought frequency or climate change—are socially mediated by practices which are often quite dynamic and adaptive.

Similarly, Fast and Berkes use the contextual material from oral histories to consider the potential resilience of communities to environmental change.³⁸ Drawing on oral histories with aboriginal communities, they suggest that there is a long tradition of adaption to minor environmental fluctuations.³⁹ As Ford *et al* concur in their discussion of Inuit communities in Igloodik (Nunavut): "analysis of past and present experience with, and response to, climate variability and change develops a greater understanding of what makes a system vulnerable to change". The oral histories collected highlight that adapting to change has always been a part of Inuit history and many of these skills, knowledge and social networks persist.

³⁷ Annika C. Dahlberg and Piers M. Blaikie, 'Changes in Landscape or in Interpretation? Reflections Based on the Environmental and Socio-Economic History of a Village in NE Botswana', *Environment and History* 5 (2) (1999): 127–74, p. 161

³⁸ Fast and Berkes, 'Climate Change, Northern Subsistence and Land-Based Economies'.

³⁹ *Ibid.*

As this work on climate resilience suggests, not only do oral histories provide an insight into specific knowledge of environmental change, they may also give perspective on particular practices and management which shape(d) that environment (positively and negatively). At one level this might include exploring the nature of past practices in areas of high biodiversity value. Working in Tianshanzhuang village, an agricultural town in the South Yangtze River delta, Liu *et al* used oral histories to explore the environmental impacts of changing agricultural practices. Based on farmers' oral histories, and a triangulation within these, they identified key periods of agricultural change, and attempted more specific calculations on inorganic fertilizer usage over the period – moving on to calculate likely nitrogen and phosphorus burdens on the land from this fertilizer use over the period.⁴⁰

Whilst we might see oral histories as limited to memory within this discussion, Riley and Harvey illustrate that the embodied understandings brought forward within oral histories might give an insight into the contexts in which they were originally developed – such as weather patterns and exposure determining the management patterns of tracts of land.⁴¹ Sowards (2010, 3) has noted, this move towards a grounded approach has affinities with labour history.⁴² Oral accounts can provide a source for detailed knowledge from actual practitioners, as well as insight into the socioeconomic context of environmental and ecological practices—practices which have been too often ignored or excluded from canonical or official accounts.⁴³ The detailed, embodied testimonies which can be produced through oral history offer a promising means to undermine dualistic concepts of labour and the environment; a task which environmental historians have stressed is crucial to developing a more dynamic and appropriate understanding of human-environmental relations.⁴⁴

⁴⁰ Pingyang Liu *et al.*, 'The Use of Oral Histories to Identify Criteria for Future Scenarios of Sustainable Farming in the South Yangtze River, China', *Sustainability* **8** (2016): 859.

⁴¹ Mark Riley and David Harvey, 'Oral Histories, Farm Practice and Uncovering Meaning in the Countryside', *Social & Cultural Geography* **8** (2007): 391-415; Mark Riley and David Harvey, 'Landscape archaeology, heritage and the community in Devon: an oral history approach.' *International Journal of Heritage Studies* **11**, (2005): 269-288; David Harvey and Mark Riley Harvey, David, and Mark Riley. "Country stories: the use of oral histories of the countryside to challenge the sciences of the past and future." *Interdisciplinary Science Reviews* **30** (2005): 19-32.

⁴² Adam Sowards, "'We're All Kinda Crazy": Smokejumpers and Western Forests', *Oral History Forum D'histoire Orale* **30** (2010): 1-22.

⁴³ Matthias Bürgi and Urs Gimmi, 'Three Objectives of Historical Ecology: The Case of Litter Collecting in Central European Forests', *Landscape Ecology* **22** (2007): 77-87.

⁴⁴ Richard White. "'Are You an Environmentalist or Do You Work for a Living?": Work and Nature', In W. Cronon (ed.), *Uncommon Ground: Toward Reinventing Nature*, pp. 171-185 (New York: W.W. Norton & Co., 1995); Stefania Barca. 'Laboring the Earth: Transnational Reflections on the Environmental History of Work.', *Environmental History* **19**(1) (2014): 3-27.

Environmental oral histories are *situated* accounts of environmental change, and therefore provide a distinct insight into environments past and present.

An illustration of oral histories providing a rich source for understanding human-environment relations is provided by Cross and Barker in the Sahel. Through a focus on issues such as environmental practices (including insect management, crop cultivation, and herding), droughts, desertification, and the impacts of environmental change they note how oral accounts by Sahelian Africans can "inform and enlighten development 'experts'".⁴⁵

Environmentally significant practices are also noted in Swiss forest use explored by Bürgi and Stuber. They report, in particular, on non-timber forest uses which were often performed by women and children and which paint a more nuanced and colourful picture of historical forest use.⁴⁶ Gimmi and Bürgi similarly utilise oral histories to demonstrate how traditional non-timber practices favoured pine trees, and the decline of non-timber forest uses led to a replacement of pines by deciduous trees.⁴⁷ Gimmi & Bürgi point out that contradictions between oral accounts and top-down management plans do not undermine the value of oral history, noting instead that oral histories provide for a "more comprehensive picture".⁴⁸

Through the evidence from their oral history informants, Daley and Griggs find that coral mining occurred in areas of the Great Barrier Reef where such mining was not previously recorded, and conclude that coral mining was likely to have been more extensive than is acknowledged. They also draw upon oral histories, alongside archival sources, to determine that coral collecting by tourists and official collectors was extensive, and contributed significantly to the degradation of the Great Barrier Reef.⁴⁹ Elsewhere, Daley *et al.* draw upon the same set of oral histories to explore various practices of fishing for sea turtles and dugong through 1969, and emphasize the lack of regulation and negative impact of such practices.⁵⁰

⁴⁵ Nigel Cross and Rhiannon Barker, 'Sahel Oral History Project', *Kalabash* (1994): 58-61.

⁴⁶ Ibid.

⁴⁷ Urs Gimmi and Matthias Bürgi, 'Using Oral History and Forest Management Plans to Reconstruct Traditional Non-Timber Forest Uses in the Swiss Rhone Valley (Valais) since the Late Nineteenth Century', *Environment and History* (2007): 211-46.

⁴⁸ Ibid. For a broader reflection on the potential of oral history for woodland history see: C. Watkins, 'Methods and Approaches in the Study of Woodland History', in K. Kirby and C. Watkins (eds), *Europe's Changing Woods and Forests: From Wildwood to Managed Landscapes* (London: CABI), pp. 18-32.

⁴⁹ Ben Daley and Peter Griggs, 'Mining the Reefs and Cays: Coral, Guano and Rock Phosphate Extraction in the Great Barrier Reef, Australia, 1844-1940', *Environment and History* (2006): 395-433.

⁵⁰ Ben Daley, Peter Griggs and Helene Marsh, 'Exploiting Marine Wildlife in Queensland: The Commercial Dugong and Marine Turtle Fisheries, 1847-1969', *Australian Economic History Review* 48 (2008): 227-65.;

Alongside the undocumented practices that oral histories may reveal, Sowards and Skelton consider the importance of environmental practices in shaping identities, and placing specific environmental practices in broader social context.⁵¹ Skelton uses oral histories of villagers in Northumberland, England to examine relationships between community identities and a major forestry project.⁵² She finds that shared experiences with forest planting and maintenance unite older villagers who, she argues, form a distinct group from villagers who arrived subsequently. Environmental practices, in this case, are important components of community environmental identity. Sowards demonstrates how oral histories can help show us how workers understand nature through their practices - an understanding which Richard White has argued is a crucial task of environmental history and environmentalism more broadly.⁵³ According to Sowards, the existing environmental history of firefighting in the United States Forest Service is dominated by "broad policy developments, big personalities, and ecological calamities", but oral histories can reveal a different perspective by attending to "the social context of the smokejumpers, their backgrounds and attitudes toward the forests, and their ideas about the policies they carried out".⁵⁴

Such insights provided by environmental oral histories can be central to understanding how environmental events are experienced and perceived by subjects. In one exemplary usage of oral history, Green and Cooper drew upon oral accounts to reflect on the Torrey Canyon supertanker oil spill off the Cornish coast in 1967.⁵⁵ Interviewing 50 men and women in 2012, they discuss how this event is remembered, pointing to the 'Proust effect'⁵⁶, whereby it was the smell of the oil – which was encountered before sight of it at the time of the disaster – which was often first recalled. They go on to explore how recollections of the Torrey Canyon revolved around predominant emotions of fear, frustration, and anger. Such examples highlight how we might build on the research which has used oral histories to examine human crises and disaster – understandably focussed, in the past, on events associated with loss of lives– to also reflect on environmental disasters. Interestingly, Green and Cooper's

Ben Daley, Peter Griggs, and Helene Marsh, 'Reconstructing Reefs: Qualitative Research and the Environmental History of the Great Barrier Reef, Australia', *Qualitative Research* 8 (2008): 584–615.

⁵¹ Leona Jayne Skelton, 'The Uncomfortable Path from Forestry to Tourism in Kielder, Northumberland: A Socially Dichotomous Village?', *Oral History* (2014): 81-93.

⁵² Ibid.

⁵³ Sowards, "'We're all Kind of Crazy'"; White, "'Are you an Environmentalist or Do You Work for a Living'"

⁵⁴ Sowards, "'We're all Kind of Crazy'", p. 3.

⁵⁵ Anna Green and Timothy Cooper, 'Community and Exclusion: The Torrey Canyon Disaster of 1967', *Journal of Social History* 4 (2015): 892-909.

⁵⁶ Paula Hamilton, 'The Proust Effect: Oral History and the Senses', in Donald A. Ritchie (ed), *The Oxford Handbook of Oral History* (New York, 2012): 218-232.

conclusion is that in the case of Torrey Canyon, which was remembered as accidental, it was less the environmental impacts which are recalled, and more the social consequences of ‘official’ responses to them – including the nature of the clean-up campaign and the extent to which local people felt included within this.⁵⁷ Green and Cooper’s findings align with other oral historical work which shows that emotions and perceptions are key dimensions of environmental disasters—scholars have even suggested that the practice of oral history can play an important role in processing the trauma of such experiences.⁵⁸

Power: authority, ideology, and colonial narratives

In close relation with environmental knowledge and environmental practices, we identify a third significant contribution of oral history to environmental history: the rich insight it can provide into power relations. Environmental oral history can be a means of taking seriously suppressed or “hidden” histories of environmental change—a recuperative project, and one which can provide a countercurrent to the sanctioning of existing socio-environmental power relations. As many scholars have emphasized, environmental processes are shaped by power-laden social relations, which influence access to and use of environmental resources, and can be key to understanding environmental change.⁵⁹ By bringing situated experiences and understandings of environmental change to the fore, oral histories can provide insight into how such environmental power relations are experienced and contested. In the tradition of Thompson’s celebration of oral history as a means of valuing information from groups who have been traditionally underrepresented, or whose knowledge has been distorted or repressed, studies have drawn upon oral history to upend dominant narratives of environmental change.⁶⁰ Within this vein, scholars have most frequently drawn upon oral histories which complicate or contradict colonial environmental narratives. For as Cruikshank and others have emphasized, colonization has been reinforced by a process of

⁵⁷ Green and Cooper, ‘Community and Exclusion’, p. 905.

⁵⁸ Mark Cave, ‘Introduction: What Remains: Reflections on Crisis Oral History’ in Mark Cave and Stephen M. Sloan (eds.) *Listening on the Edge: Oral History in the Aftermath of Crisis* (Oxford University Press, 2014), pp. 1-14; Abigail Perkiss, ‘Staring Out to Sea and the Transformative Power of Oral History for Undergraduate Interviewees’ *The Oral History Review* 43 (2) (2016): 392–407.

⁵⁹ See, for example, Carolyn Merchant, *The Death of Nature : Women, Ecology, and the Scientific Revolution*, (San Francisco : Harper & Row, 1983); William Cronon, *Changes in the Land : Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983). Piers M. Blaikie, *The Political Economy of Soil Erosion in Developing Countries* (London: Longman, 1985); Donald Worster, ‘Doing Environmental History’; William Cronon, *Nature’s Metropolis : Chicago and the Great West* (New York : W.W. Norton, 1992); Paul Robbins, *Political Ecology: A Critical Introduction*. 2nd ed. Chichester, West Sussex: J. Wiley & Sons, 2012)

⁶⁰ Thompson, ‘The Voice of the Past: Oral History’.

defining some narratives—and in particular oral accounts—of human-environmental interactions as “myth”, while sanctioning others as “science”.⁶¹

A growing body of scholarship turns oral history against such self-sanctioning myths of imperial and colonial ecologies, particularly in the wake of Showers and Malahleha’s groundbreaking study advocated for the use of oral histories in “historical environmental impact assessments” of conservation programs. In contrast with the then-prevailing assumption in environmental studies that local people’s oral testimonies were unreliable sources for understanding environmental changes, Showers and Malahleha showed that oral histories could, in fact, provide valuable and credible information on the environmental impacts of conservation programs over half-a-century after their implementation. Focusing on 1930s and 1940s British colonial soil conservation initiatives in Lesotho, they argue that two distinct and parallel processes of evaluation took place. One, by the British colonial administration, blamed problems with the programs on supposed local ignorance. Showers and Malahleha write, however, that the “Basotho were not passive recipients of soil conservation technology; they made observations, experiments and modifications of the contour system that was imposed upon them”.⁶² The contour system intended to prevent soil erosion, informants testified, was insensitive to differences in soil and field type, and actually created erosion in many fields. Basotho communities actively worked to minimize the harm of such projects, often doing so secretively because of the authoritarian nature of British colonial rule and conservation initiatives.

Fairhead & Leach similarly draw upon oral histories which contradict the basis of British colonial conservation policy, which was premised upon the claim that indigenous African forest uses destroyed forest cover. Fairhead and Leach turn this reading on its head, using oral history and other sources to reconstruct forest histories, often in ways that subvert the colonial record. In southern Guinea, for example, they argue that “far from being relics of the destruction of an extensive forest cover, most of Kissidougou's forest islands prove to have been created by local populations or extended from much smaller forest patches”. They insist on “the utility of oral accounts in understanding this regions vegetation history”. They

⁶¹ Julie Cruikshank, ‘Reading Voices’; Julie Cruikshank, *Do Glaciers Listen?: Local Knowledge, Colonial Encounters, and Social Imagination* (Vancouver : UBC Press, 2005), pp. 23-24. See also Amory Ballantine, ‘The River Mouth Speaks: Water Quality as Storyteller in Decolonization of the Port of Tacoma’, *Water History* 9 (1) (2017): 45–66; Bruce Braun, *The Intemperate Rainforest: Nature, Culture, and Power on Canada’s West Coast* (Minneapolis: University of Minnesota Press, 2002); Charles C. Mann, *1491: New Revelations of the Americas before Columbus* (New York: Knopf, 2005)

⁶² Showers and Malahleha, *Oral Evidence in Historical Environmental Impact Assessment*, p. 294.

hypothesized a history of culturally-managed afforestation based upon archival and oral evidence, and only later confirmed it using photographic sources. Dahlberg & Blaikie observe that unlike colonial administrators and postcolonial consultants, who “saw widespread degradation caused by overstocking and indigenous ignorance, contemporary range ecologists and rural sociologists more often see environmental resilience and successfully applied indigenous knowledge”, and demonstrate the convergence of oral history with such insights.⁶³ Tiffen *et al.* use oral histories to augment other sources alongside conventional data and photographs to trace environmental change in Kenya, contradicting Malthusian understandings of the relationship between population, resources, and degradation. Tiffen *et al.* paint a portrait of small farmers as remarkably adaptive in their practices and observe that if farming is profitable for smallholders, population increases can be accompanied by declines in erosion, rather than decreases in environmental quality.⁶⁴

Using oral histories, Rohde and Hoffman examined the relationship between social and environmental change in the transition away from a colonial settler period in Namaqualand in South Africa, as well as showing how external events shaped socioecological changes in a settlement in Namaqualand. The national state’s creation of individual titles for white farmers in Bushmanland alienated communal access to emergency grazing areas, increasing population pressures in the reserve in Namaqualand. Oral histories of the residents of a specific settlement are therefore also sources on socioenvironmental change in this specific region as well as South Africa more broadly. Stevens presents oral histories of Tongan farmers during a period in which, through a banana export scheme sponsored by New Zealand in the 1960s, he argues that sustainable agroforestry was replaced by factory farm models for rotating market crops. The historical changes precipitated by the arrival of Europeans in the Pacific islands, Stevens argues, are not well documented. He thus uses oral histories to reconstruct the changes since European arrival. Oral testimonies give Stevens a glimpse into the set of ecological shifts associated with export-oriented banana production—a

⁶³ Dahlberg and Blaikie, ‘Changes in Landscape or in Interpretation?’, p. 128.

⁶⁴ James Fairhead and Melissa Leach, *Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic* (Cambridge University Press, 1996): 83-84; Mary Tiffen, Michael Mortimore, and Francis Gichuki, *More People, Less Erosion: Environmental Recovery in Kenya* (Hoboken, NJ: J. Wiley, 1994)

view towards the interdependence of factors, including deforestation, declining soil fertility, and decreasing viability of smallholding.⁶⁵

Other work has noted how oral histories can provide an insight into the ways that environmental risk is historically produced, through the production of marginalization and uneven access to resources. Zuñiga-Arias draws upon oral history alongside archival and statistical sources to examine the development of vulnerability to flooding in the Corredores region of Costa Rica. Zuñiga-Arias finds that the development of banana and oil plantations in river floodplains were central to the production of vulnerability to floods—socioeconomic vulnerability and environmental vulnerability were both products of plantation development. Isaacman and Sneddon draw on oral testimonies of peasants and workers who built the Cahora Bassa dam in Mozambique which sharply contrast with Portuguese colonial officials' grandiose claims of the dam's alleged benefits. The labor force who built the dam faced life-threatening conditions, and the dam destroyed the homes of thousands of peasants, and disrupted the livelihoods of thousands downriver from the dam. Oral testimony, they stress, can provide a textured view of life before and during the dam's construction which contradicts narratives sanctioned by the colonial state. Leddy also considers environment risk by examining community experiences of the Serpent River First Nation with mining and industrialization through oral histories with elders. Oral testimonies spoke of how the environmental impacts of the uranium mining industry and other industrial development reshaped First Nations peoples' relationships with their environment.⁶⁶

In the context of the Union Carbide plant disaster in Bhopal, India, Mukherjee, moreover, has demonstrated the power of oral histories when environmental risks have been downplayed or denied. Oral histories, she writes, can “offer a powerful intellectual and political weapon for piercing the secrecy code” protecting corporate or state power, allowing victims to go “on record” regarding environmental and personal harms. Oral histories can therefore provide insight into both the immediate effects of an environmental disaster, and the more acute, long-term effects on people's bodies and environments. In this vein, ongoing research by one

⁶⁵ R.F. Rohde and M. T. Hoffman, ‘One Hundred Years of Separation: The Historical Ecology of a South African “Coloured Reserve”’ *Africa* **78** (2) (2008): 189–222; Charles J. Stevens, ‘Taking over what belongs to God: the historical ecology of Tonga since European contact’ *Pacific studies* **22** (3-4) (1999): 189–219.

⁶⁶ Ana Yolanda Zuñiga Arias, “Ríos, Cultivos E Inundaciones: Historia Reciente Del Cantón de Corredores, Costa Rica, 1950-2010.” *Ambiente Y Desarrollo* **18** (34) (2014), 77-91; Allen Isaacman and Chris Sneddon. ‘Toward a social and environmental history of the building of Cahora Bassa dam’ *Journal of southern African studies* **26** (4) (2000): 597–632; Lianne Leddy, ‘Interviewing Nookomis and Other Reflections: The Promise of Community Collaboration’, *Oral History Forum* **30** (January 2010): 1–18.

author (Williams) draws upon oral histories to highlight the ubiquitous yet suppressed history of pesticides as a multifarious environmental risk and technology of environmental racism in the United States South. Other, similar studies utilize oral histories without labeling them as such. Hurley's landmark study on industrial pollution and inequality in the US Midwest, for example, drew upon oral histories with environmental activists, regulators, industrial workers, and others to create a detailed picture of pollution and environmental injustice, but did not explicitly designate these interviews as oral histories.⁶⁷

Oral histories as transformative practice

Environmental oral history is not valuable simply as a means of *expanding* knowledge of historical environments. We are, emphatically, not advocating an extractive approach to oral history, in which it is treated only as a means of gleaning valuable information from groups and subjects whose voices have been historically excluded from institutionally-sanctioned environmental knowledge production. Rather, oral history demands a consideration of the power relations which both limit and shape environmental history. Oral history as a *practice* can lend itself to more participatory research which challenges the barriers between “expert” and “lay” knowledge, as well as gaps between research and application. Practitioners have emphasized, for example, the value of oral histories as a means of bridging the gap between community knowledge and academic knowledge in disaster preparedness and response, which can prove particularly useful in designing collaborative projects.⁶⁸ As a participatory environmental methodology, the value of oral history can lie as much in the research *process* as in the results.⁶⁹ To Gavenus *et al.*, oral histories are an opportunity to help learn from communities' and individuals' experiences with environmental disasters like oil spills, lessons which can help other communities impacted by similar disasters. Oral histories, as Gavenus *et al.* show, can also stimulate discussion between places impacted by environmental disaster.⁷⁰ Based upon her experience conducting historical environmental impact research on the Serpent River First Nation, of which she is herself a member, Leddy writes that “not only is storytelling our traditional method of sharing information, but it is also an important

⁶⁷ Suroopa Mukherjee, 2010. *Surviving Bhopal: Dancing Bodies, Written Texts, and Oral Testimonials of Women in the Wake of an Industrial Disaster* (London: Palgrave Macmillan, 2010): p. 43; Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: University of North Carolina Press, 1995).

⁶⁸ Andrew Holmes and Margaret Pilkington, ‘Storytelling, Floods, Wildflowers and Washlands: Oral History in the River Ouse Project’, *Oral History* 39 (2): 83–94; Mukherjee, ‘Surviving Bhopal’; Gavenus *et al.*, ‘Children of the Spills’

⁶⁹ See Gavenus *et al.*, ‘Children of the Spills: Phase I’

⁷⁰ *Ibid.*

way for Indigenous peoples to be active participants and recognized experts in academic research".⁷¹

Scholars and practitioners have also found that the potential of oral history to destabilize expertise can be an asset to conservation initiatives and environmental activism. Stressing the power of oral testimony as a detailed source for information on Amazonian landscape change, Arce-Nazario asserts that "oral history is not only useful for understanding ecosystem dynamics and environmental history, but also for promoting a more inclusive conservation agenda for the communities of the Amazon".⁷² Similarly, Friederici writes that "sharing stories based on hard-won experiences of the land is an essential step" towards finding elusive common ground in conservation.⁷³

Tauro & Guevara point to the power of oral history to increase the democratization of environmental knowledge, which they argue is an essential part of participatory conservation practices. Drawing upon the findings of a case study of the Las Tuxtlas Biosphere Reserve, in Veracruz, Mexico, they argue that oral history is particularly important in understanding the actions of groups often blamed as the agents of environmental destruction—in this case, a group of settlers often blamed for deforestation. Incorporating their historical environmental knowledge from the very outset, and valuing collective environmental knowledge, they argue, is key to democratizing conservation. Oral history, they hold, can be a key part of a project which satisfies both objectives. Tauro and Guevara's work also points to the value in conservation initiatives in using oral history as a source for understanding how people interpret the past.⁷⁴ As Vargas Mena has stressed, environmental transformations are mediated by environmental ideologies and meanings—engaging with these meanings is therefore crucial to conservation practices.⁷⁵

The role of oral history as a form of public storytelling can also provide a means by which environmental historians can contribute to environmental activism. Toosi, for example, argues that site-specific oral histories can both be an important methodology in environmental history and shows that it can provide a means of highlighting environmental

⁷¹ Leddy, 'Interviewing Nookomis and Other Reflections', p. 9.

⁷² Javier A. Arce-Nazario, 'Landscape Images in Amazonian Narrative: The Role of Oral History in Environmental Research', *Conservation and Society* 5 (1) (2007): 115-133, p. 131.

⁷³ Friederici, 'What has Passed and What Remains', p. 8

⁷⁴ Alejandra Tauro and Sergio Guevara Sada, 'Historias Para Escuchar Y Diversidad Que Cuidar', *Cuadernos de Biodiversidad* (2009), 14–19.

⁷⁵ Emilio Vargas Mena, 'Problemas Metodológicos de La Historia Ambiental'.

justice issues. This method, Toosi writes, requires a commitment to places that can seem unremarkable, but highlights marginalized histories and can provide vision on different environmental futures. The oral histories in the “Up the Creek” project follow a creek 18 miles through central New York state. The creek runs through areas that are sacred to the indigenous Onondaga Nation, and through a low-income, African American neighborhood in Syracuse. The oral histories provide a perspective on environmental injustice, as a sewage plant alongside the creek was sited in this African American neighborhood, but most construction jobs associated with the project were awarded to non-residents.⁷⁶ Gavenus *et al.* similarly enrol oral histories in innovative ways to facilitate education and action around oil spills as environmental disasters.⁷⁷

In what have been termed ‘subaltern environmental histories’, there has been an interest in studying environmental ideology and consciousness among non-elite groups.⁷⁸ At one level, oral histories have been used to focus on those involved in more grass-roots environmental activism, with Newman drawing on oral sources to trace the antecedents to, and wider concern of, the Love Canal protest movement in the United States against environmental contamination.⁷⁹ Blum, similarly, has drawn on interviews to examine the intersections of race, gender, and class in shaping grassroots activism around Love Canal. Blum emphasizes that dominant mainstream accounts of Love Canal have ignored the experiences of Black residents of the neighbourhood, who faced both class-based and racial discrimination. Blum also emphasizes the intersections of gender and class in shaping anti-pollution activism at Love Canal, a formative movement in 20th century environmentalism. Blum emphasizes the multiplicity of stories at Love Canal, arguing that “gender, race, and class played a vital role in how the residents of Love Canal experienced and dealt with the environmental crisis”, and that these experiences have broader implications for understanding the environmental, women’s, and civil rights activism in the United States. Focusing on the experiences of environmental justice activists in California, Perkins confronts the stereotype that most women advocating for environmental justice were previously politically unengaged, and are drawn into environmental justice activism primarily to protect the health of their families. Instead, through interviews with environmental justice activists, Perkins challenges the very

⁷⁶ Toosi, Fereshteh, ‘UP THE CREEK! A Site-Specific Oral History Project’. *Oral History Forum D’histoire Orale* **30** (2010), 1-3.

⁷⁷ See Gavenus *et al.*, ‘Children of the Spills: Phase I’, ‘Children of the Spills: Phase II’

⁷⁸ Mosley, ‘Common Ground: Integrating Social and Environmental History’.

⁷⁹ Rich Newman, ‘Making Environmental Politics: Women and Love Canal Activism’, *Women’s Studies Quarterly* **29** (2001): 65-84.

assumption that women advocating for environmental justice *are* first and foremost housewives and mothers.⁸⁰

Cooper and Green, similarly, emphasize the importance of moving beyond elitist environmental accounts, while cautioning that an emphasis on high-profile politicized moments has served to “produce a narrative that exaggerates the impact of disasters on the development of formal environmental organization”.⁸¹ In focusing on the Torrey Canyon disaster, they use oral histories with residents of Cornwall to examine more everyday environmental consciousness and, importantly, its limits. For them, oral histories offer an insight into how such events – which were narrated in apocalyptic terms among environmental and conservationist groups – did not open up a distinct environmental awareness or political engagement amongst these Cornish residence, with these individuals instead seeking to (re)produce the rhythms of everyday life in the wake of the disaster. Cooper and Green show the power of environmental oral history to attend the situated, contingent, and often contradictory processes by which environmental consciousness formation occurs, and, conversely, to explain “its relative political marginality”.⁸² Such an approach can serve to fortify environmental history’s ability to interpret the forces motivating and limiting environmental action—a key piece of environmental history’s relevance for this critical era of accelerating environmental destruction.

Conclusions

To date, oral history remains undervalued within environmental history, and in this paper we have called for a more thoroughgoing celebration of its potential. In other domains of historical scholarship, oral history has been used to engage with voices which have been suppressed in dominant environmental accounts, and we have noted here that it has the potential to do this, on several levels, for environmental history too. A key challenge in tracing the use of, and potential contributions of, oral histories is the variation in terminology used. At one level, this is simply a question of nomenclature, with authors simply employing other terms such as ‘interview data’ or ‘qualitative evidence’. At another level, however, we would argue that such a failure to designate oral histories as such can serve to hide the

⁸⁰ Elizabeth Blum, *Love Canal Revisited: Race, Class, and Gender in Environmental Activism* (University Press of Kansas, 2010): p. 2; Tracy Perkins, ‘Women’s Pathways into Activism: Rethinking the Women’s Environmental Justice Narrative in California’s San Joaquin Valley’, *Organization & Environment* 25(1): 76–94.

⁸¹ Cooper and Green, ‘The Torrey Canyon Disaster’, p. 104.

⁸² *Ibid.*, p. 104.

contributions of informants and research participants in a footnote, concealing the coproduction of historical environmental knowledge in the research and writing process. Here we would call for environmental historians to be more careful with the nomenclature they employ⁸³ and, more fundamentally, how they use oral histories. Again, insights may be gleaned here from the pre-existing discussions in other areas of history which have considered the way that historical knowledge is co-produced.⁸⁴

We have seen that in extant environmental research, oral history has been called upon fill the gap left by other sources – where these sources never recorded particular phenomena, where the archives have not survived, or where they do not offer the granularity that oral history may provide. Scholars are increasingly enrolling oral history to document environmental change and contribute to environmental management when they are able to locate [former] habitats, species distributions or climates. The increasing prominence accorded to oral history in such inquiry is promising, but oral history also provides for more dynamic and complex interpretations of human-environmental relations. Extractive approaches to oral history may serve to relegate oral accounts as an ‘additional’ resource to be mined as a supplement to more ‘scientific’ (and hence ‘reliable’) sources, but there is a growing amount of research which recognises the more radical promises and challenges of oral history as an environmental methodology.

One such approach is the use of oral history as a means of engaging with environmental practices—the specific means by which people and societies relate with the non-human world. Oral testimonies can serve as personal, embodied accounts of human-environmental interactions, and oral history thus works towards more experiential and situated accounts in addition potentially providing more granular detail on specific practices and technologies. But oral history also entails a fundamental challenge to environmental history—a reconsideration of what counts as authoritative environmental knowledge, and on the power relations which have shaped the archives of environmental history. For this reason, we have pointed towards work which explores the promise of oral history as a participatory and transformative practice, rather than simply a means of expanding the domain of legible environmental knowledge.

⁸³ On this debate in other areas of history see: Charles T Morrissey, ‘Riding a Mule through the "Terminological Jungle": Oral History and Problems of Nomenclature’, *The Oral History Review* **12** (1984): 13-28.

⁸⁴ Sarah Lloyd and Julie Moore, ‘Sedimented Histories: Connections, Collaborations and Co-Production in Regional History’ (paper presented at the History Workshop Journal, 2015).

In moving such approaches forward, further reflection is needed as to *whose* oral histories are taken into account. We have noted, for example, the strides that have been made within the discussion of marine environments and fish stocks. However, in many research settings, it is often men who are put forward as (re)tellers of these oral histories. This, despite the caution that it is women in many communities who may hold an intricate understandings of fishing environments.⁸⁵ Such silences have consequences, and Hanson accordingly stresses the importance of narrative oral histories in critiquing “conservation-as-development processes that promote specific gender-based activities in which not all can participate”.⁸⁶

Related to this theme is the central question of *locating* environmental history. Though the oral history *narrators* in the work reviewed here come from a wide variety of geographical settings, the scholarship is dominated by academics from universities in only a handful of countries. This is in part a factor of our own linguistic limitations – with the material discussed here drawn primarily from the Anglophone literature. However, this also reflects the significant north-south inequalities in the publication and dissemination of academic research.⁸⁷ That said, a limited review suggests that oral history has a stronger relation to environmental history in Latin America.⁸⁸ Scholars in the Anglophone academy would be well-suited to follow this example, while seriously engaging with the promises and limitations of oral history in challenging uneven circuits of power and knowledge. Some reflection is also needed on the relationship between academic environmental historians and those oral historians outside the academy who may themselves be collecting important material relating to our understanding of the environment. Here, we suggest that the focus of many oral history practitioners on *situated* knowledge and the value of oral history to participatory engagement indicates productive avenues for merging inquiry and practice, along with as work in and outside of the academy.

We would encourage future research to consider not only the content of interviews, but also the conduct of the interview. Oral history already has an element of methodological transparency that is sometimes lacking in other environmental history research, since

⁸⁵ Meryl J Williams, ‘Why Look at Fisheries through a Gender Lens?’, *Development* **51** (2008): 180-85.

⁸⁶ Anne-Marie S. Hudson, ‘Women’s Ecological Oral Histories of Recycling and Development in Coastal Yucatán’, *Gender, Place & Culture* **23** (4) (2016): 467–83, p. 469.

⁸⁷ For reflections on the reproduction of such inequalities, and their relationship to broader uneven geographies of power, wealth and knowledge, see James Sidaway, ‘Scholarly publishing landscapes: a geographical perspective’, *Area*, **48** (2016): 389–392.

⁸⁸ Emilio Vargas Mena, ‘Historia Oral Ambiental: Un Testimonio’, *Environmental Oral History: A Personal Narrative.*, **48** (July) (2003): 391–409; Alejandra Tauro and Sergio Guevara Sada, ‘Historias Para Escuchar Y Diversidad Que Cuidar’; Emilio Vargas Mena, ‘Problemas Metodológicos de La Historia Ambiental’

environmental oral histories tend to foreground the reality that *all* environmental knowledge production occurs in place. Oral history, we suggest, is not *exceptionally* place-bound in relation to other sources (archives, laboratories, libraries, ‘the field’), but is a methodology which does not endeavour to represent a disembodied “view from nowhere” as the standard for research practice and presentation.⁸⁹ For a discipline such as environmental history, which has remained steadfastly committed to examining the materiality of human relations, this is an undeniable strength of oral history, if one which has remained perplexingly avoided. Environmental oral histories can be further strengthened, however, by engaging with feminist and poststructural approaches which take seriously the research context as both a site and product of power relations. How is environmental knowledge co-produced in the act of interview and narration, and how does the conduct of the interview shape such knowledge? Who has access to the product of the interview? To what uses will it be put? These are important concerns which we can only raise here, but which shape both process and product.

We would like to finish the paper by return to the roots of oral history. Its origins in social history and labour movements meant that its purpose was radical – aimed at challenging an overwhelming focus on political elites and dominant narratives, while recovering the events and forces that had too often been occulted in institutional histories. As oral history developed within the academy, it drew upon various well-developed oral traditions—including African diasporic storytelling practices—which can themselves be understood as vital scholarly approaches.⁹⁰ This work came to challenge the ways that the written archive came to speak for the privileged few. As we have argued in this paper, the same concern has played out to some extent for environmental history. Our encouragement is to continue this radical and progressive trajectory, with oral history providing a crucial methodological approach. Significantly, the majority of the material reviewed here comes from outside the boundaries of the discipline of environmental history and we would build on Sörlin and Warde’s earlier call to environmental historians - to reach out to the theories and conceptual approaches which have enlightened the humanities and the social sciences - by extending this to also include their methodological insights on oral histories use.⁹¹ Oral history, we are

⁸⁹ Donna Haraway, ‘Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective’, *Feminist Studies* 14 (3) (1988).

⁹⁰ The *first* essay in the first issue of *The Oral History Review*, notably, was Alex Haley’s “Black History, Oral History, and Genealogy”; Alex Haley, ‘Black History, Oral History, and Genealogy’, *The Oral History Review* 1(1) (1973): 1–25.

⁹¹ Sverker Sörlin and Paul Warde. "The problem of the problem of environmental history: a re-reading of the field." *Environmental History* 12(1) (2007): 107-130.

convinced, can play a key role in countering the classed, racialized, and gendered distortions in what has been counted as authoritative environmental knowledge. Oral history can therefore, at its best, be more than an adjunct to environmental history—it can be catalyst for an environmental history which is both more intellectually robust, and more effectively oriented towards the pursuit of an environmentally just, sustainable, and liveable future.

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