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Extreme weather, school logbooks and social vulnerability: the Outer Hebrides, Scotland, in the late nineteenth and early twentieth centuries

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25 June 2022

Dear Professor Diogo de Carvalho Cabral

Manuscript Number: YJHGE-D-21-00063

Thank you for your evaluation of our paper and for giving us the opportunity to revise and re-submit it for your further consideration. Your comments and those of the reviewer were extremely helpful and generous. I have responded to the reviewer and itemised the changes we have made in the response to their comments. We look forward to hearing your views on the changes we have made and hope they take the paper closer to publication in *Journal of Historical Geography*.

Yours sincerely, Prof Simon Naylor

25 June 2022

Dear Professor Diogo de Carvalho Cabral

Manuscript Number: YJHGE-D-21-00063

Reviewer #1

Thank you to the reviewer for their generous comments. We are glad they feel the paper reads a lot better.

The reviewer suggests we make more of the source material. We have followed their advice and emphasised the school logbooks more clearly in the introduction and conclusion and we have also changed the paper title to reflect our use of the sources.

We have re-written the section on social vulnerability (pp4-5) to reduce the use of direct quotations.

We have removed some of the discussion on the value of documentary records in line with the reviewer's suggestions.

We have provided clearer definitions of weather places and weathered places.

We have provided a little more reflection on the findings and the value of the source material in the conclusion.

Thanks again for all your comments on this paper. They have really helped us to sharpen our argument and ensure the paper reads clearly.

Highlights

- School logs are valuable archival sources for weather and climate history studies
- Scottish Islanders lived in 'weather worlds' and were vulnerable to extreme weather
- Islanders' vulnerability to extreme weather was due to a wider social vulnerability

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Scotland, in the late nineteenth and early twentieth centuries**

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Abstract

This paper demonstrates the value of school logbooks, an unusual and hitherto underused archival source, to the field of the historical geographies of weather and climate. It examines logbooks for schools across the Outer Hebrides, or Western Isles, off the west coast of mainland Scotland, ranging from the late nineteenth century until the early twentieth century. The weather had numerous and varied impacts on everyday life on the islands and was frequently recorded in school logbooks. The article shows that islanders were especially vulnerable to extreme weather events – typically strong winds, heavy rain, storms and snow – which affected children’s school attendance, health and well-being. It is argued that vulnerability to extreme weather reflected the wider social vulnerability of the islands’crofting communities.

Keywords

Extreme weather; Scotland; Outer Hebrides; social vulnerability; weathered places

Introduction

Over the past twenty years the field of historical climatology has brought together the methodologies of climatology and history to explore and illustrate the dynamic interplay between climate and a number of human and environmental factors.¹ Drawing on documentary evidence – including non-traditional historical records – scholarship in historical climatology has analysed climate-society relations and provided reconstructions of temporal and spatial patterns of weather and climate, particularly for the period prior to the creation of national meteorological networks and in places where reliable instrumental data was limited or non-existent.² Where detailed written records exist, historical analysis is effective at ‘thickening’ understandings of climate-society relationships.³

¹ M. Carey, *Climate and History: a critical review of historical climatology and climate change historiography*, *WIREs Climate Change* 3 (2012) 233–249, 237; C. Pfister, *The vulnerability of past societies to climatic variation: a new focus for historical climatology in the twenty-first century*, *Climatic Change* 100 (2010) 25–31.

² G. Endfield, *Exploring particularity: vulnerability, resilience, and memory in climate change discourses*, *Environmental History* 19 (2014) 303–310, 305; R. Brazdil, C. Pfister, H. Wanner, H. Von Storch and J. Luterbacher, *Historical climatology in Europe – The state of the art*, *Climatic Change* 70 (2005) 363–430, 365.

³ G.C.D. Adamson, M.J. Hannaford and E.J. Rohland, *Re-thinking the present: The role of a historical focus in climate change adaptation research*, *Global Environmental Change* 48 (2018) 195–205, 200.

Historical and cultural geographers have contributed to work in historical climatology and environmental history. They have highlighted the effects of regional circumstance, particular physical conditions, an area's social and economic activities, and locally embedded cultural knowledges, norms, values, practices and infrastructures on experiences of and responses to climate variability and particular weather events.⁴ Endfield has pointed out that 'climate is "nested in places" through local weather'.⁵ Weather contributes to the culture of a particular place, framing and informing lifestyles, activities, practices, traditions and languages there. It influences the way humans experience, remember, commemorate, celebrate and form identities in place. In turn, the generation and consumption of weather knowledge by individuals and communities happens in particular localities. Places, Endfield argues, 'become "known" and knowable by and through their weather; they are made distinctive from one another as specific "weather places."' ⁶

Particular attention has been paid to the experiences of and memories associated with extreme weather events and how such events can influence perceptions of place and the place itself.⁷ Definitions of extreme weather vary. Some researchers define it from a scientific perspective, such as conditions that exceed certain thresholds or are in the tails of the climatological distribution for a location, while others define weather as extreme from a more human perspective: as hazardous weather-related events that produce significant damage or disastrous outcomes.⁸ Morss et al note that the most frequently discussed extreme weather outcomes are direct consequences of an event, notably deaths, injuries and property damage. There are also numerous indirect consequences that extreme weather can cause, including economic and agricultural dislocation; damage to infrastructure; disruption of food and water supplies; changes in species population, range, morphology, and behaviour; impacts on long-term human physical and mental health; as well as land erosion, hazardous chemical

⁴ Endfield, Exploring particularity, 306.

⁵ G.H. Endfield, Weather and elemental places, *Historical Geography* 47 (2019) 1-31, 2.

⁶ Endfield, Weather and elemental places, 4; L. Veale, G. Endfield and S. Naylor, Knowing the weather in place: the Helm Wind of Cross Fell, *Journal of Historical Geography* 45 (2014) 25-37.

⁷ Georgina Endfield and Simon Naylor, 'Climate and cultural heritage: An experiment with the Weather Memory Bank', in D.C. Harvey (ed) *The Future of Heritage as Climates Change: Loss, Adaptability and Creativity*, Ashgate, Aldershot, pp62-77.

⁸ R.E. Morss, O.V. Wilhelmi, G.A. Meehl and L. Dilling, Improving societal outcomes of extreme weather in a changing climate: An integrated perspective, *Annual Review of Environment and Resources* 36 (2011) 1-25, 3-4.

pollution and other environmental issues.⁹ In the longer-term, extreme weather can contribute to hunger, food insecurity, malnutrition and famine; it can place stresses on water resources and exacerbate disease outbreaks; it can lead to a loss of livelihood and the displacement of populations. Endfield has referred to localities affected adversely by extreme weather as ‘weathered places’.¹⁰ Similarly, we use the term ‘weathered place’ in this paper to describe the way extreme weather can negatively reconfigure the relationship between people and their places of home, study and work.

This paper explores the creation of one such weathered place: the Outer Hebrides, an island chain off the west coast of Scotland. Employing Endfield’s term, we investigate the effects of extreme weather on the lives of its inhabitants over the last three decades of the nineteenth century and the first three decades of the twentieth century. In doing so, we make use of a novel archival source: school logbooks. We contend that the islands’ communities were particularly vulnerable to environmental hazards like extreme weather. Islanders’ disproportionate exposure to extreme weather reflected their wider social vulnerability. In developing this argument, the paper covers a number of topics: First, we discuss recent literature on vulnerability and social vulnerability as it pertains to environmental hazards; second, we discuss the benefits and limitations of school logbooks, which are the principal data source for historical geographies of extreme weather on the Outer Hebrides; third, we outline the history of education in Scotland as part of a wider account of the social and economic history of the Highlands and Islands. Lastly, we present and analyse the ways in which extreme weather affected the lives of communities, linking their exposure to extreme events to their wider social vulnerability.

Vulnerability and social vulnerability

Vulnerability can be defined as the potential for or susceptibility to loss, damage or harm: ‘the degree to which human and environmental systems are likely to experience harm due to a perturbation or stress’.¹¹ The concept of vulnerability has been examined by sociologists, geographers, anthropologists and historians concerned with issues of risk, hazards and disasters.¹² Brazdil and Pfister have both suggested that historical climatologists should also

⁹ Morss et al, Improving societal outcomes of extreme weather, 4.

¹⁰ Endfield, Weather and elemental places, 9.

¹¹ Endfield, Exploring particularity, 305.

¹² C. Pfister and R. Brazdil, Social vulnerability to climate in the “Little Ice Age”: An example from Central Europe in the early 1770s, *Climate of the Past* 2 (2006) 115–129, 115; R.E. Kasperson and J.X. Kasperson,

investigate the vulnerability of past societies and economies to climate variations, climate extremes and disasters.¹³

Although vulnerability can be framed in environmental and ecological terms or in relation to the severity of the hazard, over the past 25 years ‘social vulnerability’ has become an important focus of scholarly attention. Social vulnerability assumes that a person’s exposure and sensitivity to an environmental hazard is in large part the outcome of their social, political and economic position – those factors that ‘influence or shape the susceptibility of various groups to harm and that also govern their ability to respond.’¹⁴ Any analysis of human vulnerability to extreme weather, climate change or environmental hazards should, therefore, consider the various factors that influence social vulnerability across different groups and that either promote or constrain opportunities for adaptation.¹⁵ The structure of social systems can leave some people more exposed to hazards than others, thus requiring an appreciation of the ways in which human systems place people in relative positions of risk.¹⁶ In line with this position, we follow Chmutina and Meding’s argument that ‘natural disaster’ is an inaccurate and misleading term, which ‘disconnects the reality of the most vulnerable by continuously blaming “nature” and putting the responsibility for failures of development on “freak” natural phenomena or “acts of God.”’¹⁷

Cutter et al argue that studies of social vulnerability must take account of place inequalities in particular: ‘those characteristics of communities and the built environment, such as the level of urbanization, growth rates and economic vitality, that contribute to the social vulnerability of places.’¹⁸ Cultural and historical geographers and environmental historians have observed

Climate change, vulnerability and social justice, London, 2005; P. Blaikie, T. Cannon, I. Davis and B. Wisner, *At risk: Natural hazards, people’s vulnerability and disasters*, London, 1994; I. Burton, R. Kates and G. White, *The environment as hazard*, New York, 1993, second edition.

¹³ Brazdil et al, Historical climatology in Europe; Pfister, The vulnerability of past societies to climatic variation.

¹⁴ S.L. Cutter, B.J. Boruff and W.L. Shirley, Social vulnerability to environmental hazards, in S.L. Cutter, Hazards, vulnerability and environmental justice, 2006, 115–131, 115; L.J. McEwen and A. Werritty, ‘The Muckle Spate of 1829’: the physical and societal impact of a catastrophic flood on the River Findhorn, Scottish Highlands, *Transactions of the Institute of British Geographers* 32 (2007) 66-89, 78.

¹⁵ G.H. Endfield, Archival explorations of climate variability and social vulnerability in colonial Mexico, *Climatic Change* 83 (2007) 9-38, 10; D.M. Liverman, Vulnerability and adaptation to drought in Mexico, *Natural Resources Journal* 39 (1999) 99-115.

¹⁶ G. Bankoff, Comparing vulnerabilities: Toward charting an historical trajectory of disasters, *Historical Social Research* 32 (2007) 103-114, 103.

¹⁷ K. Chmutina and J. von Meding, A dilemma of language: “Natural disasters” in academic literature, *International Journal of Disaster Risk Science* 10 (2019) 283-292, 290.

¹⁸ Cutter et al, Social vulnerability to environmental hazards, 116.

that environmentally, politically, socially or economically marginal groups exhibit higher levels of vulnerability, with limited or constrained ability to adapt to and recover from environmental changes and extreme events.¹⁹ For instance, Carey notes that marginalized populations have suffered ‘disproportionately from climatic variability and weather-related hazards because they lack the socio-economic means to buffer themselves, possess little political power to avoid or recover from their situations, or are pushed into their vulnerable positions by outside factors attributed to power imbalances, economic inequality, and social divisions’.²⁰ Kelman et al contend that vulnerability is itself a process and that some groups become increasingly vulnerable over a long period of time.²¹ Due to factors like limited livelihood options, restricted access to land to grow crops or graze livestock, or lack of resources and services, people and communities are made to become marginalized, disadvantaged, impoverished and exploited. In many situations it is the vulnerability process that is more significant than the environmental hazard. In these cases, people are subject to a ‘double exposure’: their vulnerability increases due to the dual challenges imposed by environmental hazards and economic or political structures.²² The findings of this research bear out these points. The next section of the paper investigates the vulnerability of the communities of the Outer Hebrides through a particular documentary source – school logbooks – that recorded attendance and reasons for pupil absence.

School logbooks as a source for historical geographies of the weather

Documentary sources have proved essential in investigations of the cultural and historical geographies of climate and weather.²³ Qualitative data sources like diaries, correspondence, journalism, imagery and memoirs often have the advantage of good dating control and high temporal resolution as well as temporal coverage (days, months, seasons and years), providing researchers with detailed information about the weather on a regular basis, which is particularly valuable in locations where there is a lack of instrumental data.²⁴ These sources

¹⁹ Endfield, Archival explorations of climate variability, 9.

²⁰ Carey, *Climate and History*, 237.

²¹ I. Kelman, J.C. Gaillard, J. Lewis and J. Mercer, Learning from the history of disaster vulnerability and resilience research and practice for climate change, *Natural Hazards* 82 (2016) 129–143, 136.

²² O’Brien and Leichenko developed the concept to examine the simultaneous impacts of climate change and economic globalisation: K.L. O’Brien and R.M. Leichenko, Double exposure: assessing the impacts of climate change within the context of economic globalization, *Global Environmental Change* 10 (2000) 221–232.

²³ Endfield, *Weather and elemental places*, 9.

²⁴ L. Bagnoli, Tourists and meteorologists in the Italian Riviera: The Journal de Bordighera (1883–1935) as a source for the study of the local climate, *Journal of Historical Geography* 75 (2022) 24–41, 24. Brazdil et al, *Historical climatology in Europe*, 376.

can also reveal the socio-economic impacts of extreme weather events, which are often missing from instrumental data records, and ‘can bring into focus the role of individual and institutional agency as well as the significance of the uneven distribution of power in past adaptation processes’ to extreme weather.²⁵ Documentary sources can provide information on ‘activities undertaken during mundane intervening phases that either exacerbate or mitigate the hazards and risks presented to communities during extremes’, thereby allowing researchers to ‘consider the adaptive responses undertaken by individuals and communities to events and the nature of actions undertaken during periods between extremes that may exacerbate risk’.²⁶ They can also provide a great deal of social and cultural information about contemporary perceptions of and discourses about weather, climate and the environment. They are particularly good at recording emotional or nostalgic responses to weather events at individual and community levels.²⁷

This paper utilises school logbooks as valuable documentary sources of weather and island life on the Outer Hebrides. The logbooks are held by *Tasglann nan Eilean Siar* (Hebridean Archives). More than 170 school logbooks survive, covering the period from 1872 to the late twentieth century. In order to understand how weather affected Hebridean life, school logbooks held at Castlebay Community Library on the Isle of Barra, Lionacleit Community Library on the Isle of Benbecula, Tarbet Community Library on the Isle of Harris, at Stornoway Library on the Isle of Lewis and in the archive of Stornoway Historical Society were consulted and analysed (Fig. 1).²⁸ School logbooks have been used by historians of education to explore aspects of schooling, for instance curriculum development, national standardisation and the professionalisation of teachers, as well as to explore issues of gender,

²⁵ Adamson et al, Re-thinking the present, 199; G.C.D. Adamson, Private diaries as information sources in climate research, *WIREs Climate Change* 6 (2015) 599–611, 599; L. Veale, J.P. Bowen, G. Endfield, ‘Instead of fetching flowers, the youths brought in flakes of snow’: exploring extreme weather history through English parish registers, *Archives and Records* 38 (2017) 119-142.

²⁶ Harvey-Fishenden and Macdonald, Evaluating the utility of quantitative personal diaries, 133 and 145 respectively; Macdonald N et al, Developing a historical climatology of Wales from English and Welsh language sources, *Weather*, 65 (2010) 72-81.

²⁷ Endfield, Weather and elemental places.

²⁸ The research was completed as part of a wider AHRC-funded project into the historical geographies of extreme weather in Britain. Transcriptions of extreme-weather events recorded in the school logbooks are available in the project’s weather database, along with many other records from across Britain. For more information on the wider project and its extreme weather database see: L. Veale, G. Endfield, S. Davies, N. Macdonald, S. Naylor, J.P. Marie-Jeanne Royer, R. Bowen, Tyler-Jones and C. Jones, Dealing with the deluge of historical weather data: the example of the TEMPEST database, *Geo: Geography and Environment* 4 (2017) 1-16.

language and literacy.²⁹ Logbooks also represent a valuable resource for historical geographers, historical climatologists and environmental historians researching climate and weather histories, especially in a place where few people kept records of their lives under the weather. As a recent paper by Foley documents, the state of the weather was often noted in school logbooks, along with other events taking place in the immediate vicinity of the school.³⁰ Foley examines one logbook from the Orkney Islands from 1903-1919, classifying qualitative weather information into meteorological indices, which are used to assess the impact of extreme weather on absenteeism and agricultural activities. Our own study covers a longer period, a large geographical area and many more schools, but it supports Foley's claim that extreme weather shocks negatively impacted children's mobility and school attendance.

As Foley shows, re-purposing school logbooks as environmental records highlights their fragmentary, incomplete nature as sources of information about relations between these remote island communities and their weather. The most obvious challenge for the researcher is that the information recorded was not intended primarily to be a record of the weather at all. Accounts of the weather were not comprehensive or recorded systematically – there is no definition of what record keepers meant when they used terms like 'stormy' and 'wet', for instance. What the entries do show is the frequency of extreme weather and its effects on school attendance, the conditions of the children when arriving at school, damage to school buildings and any subsequent responses, whether by the family, school or community. Conversely, entries also record incidences of good weather, given that it encouraged non-attendance, due to children helping with crofting and providing seasonal labour. The school logbooks are especially valuable in the case of the Outer Hebrides due to the paucity of other sources that document the weather for the period in question. That said, where possible we have cross-referenced the log books to other primary source material, including various government commissioned reports into the social and economic conditions across the Outer Hebrides.

Fig 1. Map of Outer Hebrides showing locations of schools whose logbooks were consulted (triangles) and schools whose logbooks were referred to in the text (circles and label). The map was generated by the authors and contains OS data © Crown copyright and database right 2022.

²⁹ See for instance J. McDermid, Gender and geography: The schooling of poor girls in the Highlands and Islands of nineteenth-century Scotland, *History of Education Review* 32 (2003) 30-45.

³⁰ Aideen Foley, Extreme weather, climate variability, and childhood: A historical analogue from the Orkney Islands (1903–1919), *Island Studies Journal* 17 (2022) 177-2021.

Research has focused on schools for which there are long series of logbook records and were situated to provide good geographical coverage of the entire island chain. Our temporal range covers the last three decades of the nineteenth century and first two decades of the twentieth century. The climate of the Outer Hebrides has been judged to be mild although stormy – in an 1849 report it was described as ‘in general moist and variable, the prevailing winds being from the south-west and north-west, frequently blowing most furiously; but the air is pure, and, on the whole, mild.’³¹ However, the final three decades of the nineteenth century were climatologically and meteorologically challenging for Scotland. Dawson has shown that from the 1870s onwards, winters in Scotland ‘were either extremely cold, with snow lying for weeks on the ground, or they were incredibly stormy’, while the summers and autumns tended to be wet.³² Scotland was hit by a series of dangerous storms – perhaps the most infamous being the 27-28 December 1879 storm that led to the Tay Bridge disaster – while there was extensive sea ice in the North Atlantic. However, the 1890s saw the onset of improved weather with declining rainfall and reduced flooding, a series of warm summers, along with drier and cold winters, which extended into the first decades of the twentieth century. The school logbooks captured many of these episodes.

Although records run up to the present day or to well within living memory, we have limited the temporal end-point of our inquiries to the 1920s, because social and infrastructural improvements meant that weather impacts were becoming less significant by then and to avoid revealing any sensitive information about individuals who may still be alive or have living friends and relatives.³³ Other ethical issues remain and need to be acknowledged.³⁴ Archives are places of power, of political and classificatory authority. Archives, Withers reminds us, emerged as part of state control of knowledge.³⁵ This is a crucial observation when working with school logbooks, which were part of the state apparatus to monitor the activities of children, families and communities and even to take action against them. School

³¹ W. Brown, H. MacLachlan and C.R. Baird, *Report on the Outer Hebrides, or Long Island, by a Deputation of the Glasgow Section of the Highland Relief Board*, Glasgow, 1849, 4.

³² A. Dawson, *So fair and foul a day: A history of Scotland's weather and climate*, Edinburgh, 2009, 172.

³³ This decision complies with the Archives and Records Association of Scotland's guidance on the use of historical education records.

³⁴ F.P.L. Moore, Tales from the archive: Methodological and ethical issues in historical geography research, *Area* 42 (2010) 262–270, 264.

³⁵ C.W.J. Withers, Constructing ‘the geographical archive’, *Area* 34 (2002) 303–311, 304.

logbooks privileged the voices of certain records and record keepers while marginalizing or excluding others.³⁶ The lives of the school children and their families are abstract and muted in these records. To borrow from Mills, they were ‘doubly marginalised’ research participants: hidden, first, amongst adult accounts and hidden again in the archives.³⁷ Our intention is to stage a meaningful recovery of the social and environmental lives of islanders from documents that were ‘produced from within fundamentally opposed epistemic frameworks’.³⁸ Our aim, in other words, is to use the logbooks to reconstruct ‘the memory or story of complex groups and individual identities both at one moment in time, and through time’.³⁹

Educational developments in Scotland

The existence of this rich archival resource is due to a significant development in education in Scotland: the Education (Scotland) Act of 1872. The Act was brought into being by the newly created Scotch (later Scottish) Education Department (SED) and sought to standardise education through the establishment of local school boards.⁴⁰ The expansion of formal education into the remoter parts of Scotland reflected the government’s belief that education was a crucial civilising and modernising tool for the Highlands and Islands, alongside religious practice and other forms of government-led community infrastructure, such as the provision of social welfare and widening political involvement.⁴¹ This attitude was reflected in John Percival Day’s account of the public administration of the Highlands and Islands published in 1918, in which he argued that ‘education provides the only avenue whereby ability may escape from the fisheries, the farms, or the crofts; and the lack of education – in particular, the inability of the Gaelic population to understand, speak or write English – has operated in the past as a check to any movement of the workers to wider markets.’⁴²

³⁶ T. Cook, Evidence, memory, identity, and community: four shifting archival paradigms, *Archival Science* 13 (2013) 95–120, 101; M. Cifor, Affecting relations: introducing affect theory to archival discourse, *Archival Science* 16 (2016) 7–31, 14.

³⁷ Sarah Mills, Cultural-historical geographies of the archive: Fragments, objects and ghosts, *Geography Compass* 7 (2013) 701–713, 707.

³⁸ Moore, Tales from the archive, 263.

³⁹ H. Feng, Identity and archives: return and expansion of the social value of archives, *Archival Science* 17 (2017) 97–112, 98.

⁴⁰ Local school boards continued until they were replaced by County Education Authorities following The Education (Scotland) Act of 1918. For histories of education in Scotland, see R. Anderson, M. Freeman and L. Paterson (eds.), *The Edinburgh history of education in Scotland*, Edinburgh, 2015; R.D. Anderson, *Education and the Scottish People, 1750-1918*, Oxford, 1995.

⁴¹ McDermid, Gender and geography, 31.

⁴² J.P. Day, *Public administration in the Highlands and Islands of Scotland*, London, 1918, 143; J.L. Campbell, Introduction, in Frederick Rea, *A school in South Uist: Reminiscences of a Hebridean School Master 1890-1913*, London, 1964., xxii.

The Act was intended to reduce clerical domination of education and gave school boards the power to create and run schools. However, there was to be one school board for each parish, which meant that education remained tied to parish administration. School boards typically had seven members, which usually consisted of the factor representing the proprietor (or landowner), the clergy and prominent farmers. They were elected by owners and occupiers of land worth at least £4 a year. Until the 1886 Crofters' Holding (Scotland) Act, crofters did not have security of tenure and consequently may have been reluctant to vote in school board elections against their landlord, for fear of eviction.⁴³ It was very rare for crofters to be represented on school boards. The boards were funded by a grant from the SED, school fees and by rates levied by the parish.

Education became compulsory under the Act from the age of five up to 13, with attendance enforced by the compulsory officer. The government grant was linked to attendance – hence the need for school logbooks or attendance registers – which was detrimental financially for schools in remote areas with low numbers of students and poor attendance rates. The Royal Commission of Inquiry into the Condition of Crofters and Cottars in the Highlands and Islands – set-up in 1883 and known as the Napier Commission, whose report was published in 1884 – acknowledged this: ‘in a great part of the Highlands and Islands, in spite of the compulsory clause ... the amount of Government grant realised is much below what it should be, in the very places where it is most required.’⁴⁴ To further exacerbate this problem, the large size of parishes and dispersed populations in the Highlands and Islands meant that it was necessary to construct a greater number of schools than in lowland areas, in inhospitable terrain, with high building costs and rapid rates of debilitation.⁴⁵ The design of schools

⁴³ T.M. Devine, *Clearance and Improvement: Land, Power and People in Scotland 1700-1900*, Edinburgh, 2006, 24–25; D. Brand, W. Hosack and P.B. Macintyre, *Report to the Secretary for Scotland by The Crofters Commission on the Social Conditions of the People of Lewis in 1901, as compared with twenty years ago*, Glasgow, 1902.

⁴⁴ Anon, *Report of Her Majesty's Commissioners of Inquiry into the Condition of the Crofters and Cottars in the Highlands and Islands of Scotland, etc. with the evidence taken by the Commission*, Vol. 5, Edinburgh, 1884, 70. The Napier Commission provided a rare instance where crofters' voices could be expressed and in turn recorded: 775 people were interviewed in 61 places across the Scottish Highland and Islands and everything recorded was put on record. The Commission itself has since been judged the single most important factor in the production of a collective sense of crofter subjectivity. Iain MacKinnon, *The invention of the crofting community: Scottish history's elision of the indigenous identity, ideology and agency in accounts of land struggle in the modern Gàidhealtachd*, *Scottish Historical Review* 98 (2019) 71-102; C.W.J. Withers, *Gaelic Scotland: The Transformation of a Culture Region*, London, 1988, 253-255.

⁴⁵ Day, *Public administration in the Highlands and Islands*, 144. As crofters traditionally built their own houses, there was limited demand for stone masons, but the 1872 Act created a lot of work and drove up masons' wages.

contrasted with the traditional vernacular style of blackhouses and served as a symbolic reminder of the imposition of a new state regime on island society (Fig. 2). In 1884 it was reported:

These Highland and Island school buildings were erected under the stringent regulation of the Scottish Education Department, in a style and on a scale often beyond the requirements of the people, and at an expense quite disproportioned to their means, at a time when building was exceptionally costly. In point of fact, the necessity for the erection of so many schools in these remote localities, within a certain time, produced a rise in wages and in the cost of building beyond all previous experience.⁴⁶

As it will be pointed out later, these new buildings often fared poorly when exposed to the Hebridean weather.

Fig. 2. Lochmaddy School, North Uist, built 1879, 1897. Copyright: Leabharlann nan Eilean Siar.

School logbooks were completed by the teacher, who was usually male and held a university degree or teaching certificate. Entries were typically made weekly. The compulsory officer and doctor or medical officer were similarly influential figures in the community and were often referred to in the logbooks, given their responsibility for attendance and the health of school children respectively. The schoolmaster frequently remarked on the weather given its varied effects on attendance. In doing so they acted as a proxy weather observer. It is important to note that teachers changed regularly, usually once they got a teaching post on the mainland, so there was little opportunity for them to get a sense of the relative significance of weather events over time. However, there is some limited evidence of attempts to gauge the significance of weather events in a longer community history, either in terms of memory of the schoolteacher or that of the community. For example, on 5 December 1895 the teacher at Barvas, Lewis noted: 'Storm worse than ever today. This has certainly been the worst week I have ever experienced in Lewis.' During the week of 3-10 December 1886 the teacher at Grimsay, a tidal island between Benbecula and North Uist, noted: 'In consequence of the severity of the weather the attendance during the present week was very

⁴⁶ Anon, *Report of Her Majesty's Commissioners of Inquiry Vol 5*, 72.

low. On Wednesday none were able to venture out, that day being about the most stormy I ever witnessed.’ On 24 January 1890, the teacher at Castlebay, Barra noted: ‘This winter is said to be the worst experienced in Barra for forty years’.

Weather places

Most of the children attending schools across the Outer Hebrides were from families of crofters or cottars. A croft was a house, garden and strip of land – typically three to five hectares – for arable farming, with a share of common grazing land held by the crofting township.⁴⁷ Crofts were rented rather than owned – a crofter was defined as a person holding land directly from a proprietor, or landowner, at an annual rent of not more than £30. A cottar, meanwhile, was the occupier of a house at a rent of not more than £2 a year, who held no grazing rights from the proprietor.⁴⁸ Crofting comprised of agriculture along with other economic activities such as fishing, the gathering of natural resources like kelp (seaweed) and peat, and spinning and weaving. These activities followed a seasonal routine: gathering seaweed for fertiliser in February and March; ploughing and sowing in spring before heavy summer rains; gathering peat in May and June; house repairs in the summer months, as well as work repairing roads, and some weaving and knitting; harvesting potatoes, oats and meadow hay in September and October, which often took place under moonlight if the weather was dry. Many crofters supplemented their income by working on the fishing fleets. In evidence given to the Napier Commission, one crofter – Donald Campbell of Cregston [Craigston] on the west coast of Barra – observed that Atlantic fishing was an activity done during fine weather, while working on the land could take place ‘when it was wild weather’ and during ‘the wild seasons’.⁴⁹

There was a close relationship between the weather, crofting activities and school absenteeism because families often relied on their children to help with seasonal work. At Bayble, Lewis, on 3 June 1878, attendance had been very small, the teacher noting that ‘the old habits of this place [were] evidently not in the least changed by the Education Act’, three quarters of the village children having been sent to the moor with a few sheep with the consent of their parents.⁵⁰ On 22 October 1880 it was recorded that the school had been

⁴⁷ Susan Parman, *Scottish crofters: A historical ethnography of a Celtic village*, Belmont, 2004.

⁴⁸ A.D. Cameron, *Go Listen to the Crofters: The Napier Commission and Crofting a Century Ago*, Stornoway, 1986, 4.

⁴⁹ Anon, *Report of Her Majesty's Commissioners of Inquiry Vol 1*, 661.

⁵⁰ Bayble School logbook 1877-1906, Tasglann nan Eilean Siar (Hebridean Archives; hereafter TES), 14.

closed for a week as the youngest children could not attend due to the unusual severity of the weather, whilst older children were ‘detained by their parents for home work’, meaning work on the croft.⁵¹ Similarly, at Tigharry, North Uist the school teacher observed that ‘Attendance depends upon the state of the weather, a wet day brings out the children much better. Outdoor labour accounts for this.’⁵² At Aird, Lewis, it was noted on 16 November 1894 that the attendance had been affected that week by weather and sheep gathering.⁵³ Herding sheep and cattle was a common reason for children to be kept at home. At Bragar, Lewis, the attendance was lower on 7 February 1890 due to some good weather and some of the pupils have been kept at home herding.⁵⁴ At Castlebay, on 19 May 1921, attendance was unsatisfactory on one day that week due to it being very wet and on another when a cattle sale was held.⁵⁵ At Grimsay, it was recorded on 20 October 1899 that fine weather meant that families were working to secure the potato crop.⁵⁶ Planting and harvesting potatoes were crucial activities that affected school attendance across the island chain. At Scarp, an island off the west coast of the Isle of Harris, it was recorded on 26 March 1897 that the attendance had been irregular due to bad weather and ‘the older ones going for peat, while their parents were at sea with the lobster creels’.⁵⁷

Children were also routinely used to gather subsistence materials along the local shoreline. At Northbay, Barra, it was noted on 5 March 1886 that school attendance was suffering ‘from the mania at present prevalent of gathering cockles. Since the weather has become milder every child who is able to join in the work is kept away on several days in the week for the purpose’.⁵⁸ This continued into the following week,⁵⁹ while at Loch Croistean, Lewis, attendance in March 1889 was irregular because of the gathering of whelks and cold weather, which had prevented some children from attending school.⁶⁰ At Castlebay on 22 March 1889 attendance fell due to inclement weather and partly to a considerable number of the children being employed gathering seaweed.⁶¹ On the island of St Kilda, where in addition to

⁵¹ Bayble School logbook 1877-1906, TES, 63.

⁵² Tigharry School logbook 1874-1908, 22 June 1883, TES, 116.

⁵³ Aird School logbook 1879-1908, TES, no page.

⁵⁴ Bragar School logbook 1878-1902, TES, 258.

⁵⁵ Castlebay School logbook 1913-1943, TES, 100.

⁵⁶ Grimsay School logbook 1880-1907, TES, 72.

⁵⁷ Scarp School logbook 1879-1897, TES, 296.

⁵⁸ Northbay School logbook 1883-1909, TES, 50.

⁵⁹ Northbay School logbook 1883-1909, TES, 51.

⁶⁰ 22 March 1889, Loch Croistean School logbook 1879-1906, TES, 135.

⁶¹ Castlebay School logbook 1882-1913, TES, 99.

agriculture the inhabitants were engaged in weaving and fowling, it was recorded on 27 August 1915 that owing 'to the broken weather the catching of the birds is being prolonged. On wet days the children came to school so that four attendances have been made this week.'⁶²

The reasons for lack of attendance at local schools across the Outer Hebrides reflected a society that was involved in a subsistence, mixed economy that relied on the islands' full ecological range. The weather and climate placed important daily and seasonal roles in crofting family life and ensured that the islands were weather places. This was well summarised by the Reverend Roderick Macdonald, who gave evidence to the Napier Commission on its visit to South Uist in 1883: 'During the season of spring and harvest, no people work harder or more continuous; they are at it late and early; but in the inclement season of a long winter, with the short, dark days, with almost constant storms and blinding rain, one can easily understand how little can be done during that time in such adverse circumstances.'⁶³

The Outer Hebrides: a weathered place?

Crofting was introduced to the Highlands and Islands in the latter half of the eighteenth century, replacing the late-medieval run-rig system. It has been judged part of the domestic colonization of Scotland, whereby new settlement patterns, land management practices and ideas of improvement were imposed by predominantly non-Gaelic private landowners on Gaelic tenants, 'accompanied by attitudes of cultural and racial superiority'.⁶⁴ The introduction of the potato in the mid-eighteenth century and the booming, labour-intensive, kelp industry in the early nineteenth century led to a population explosion.⁶⁵ In turn, the collapse of the kelp market in the 1820s saw landowners switch to sheep farming, where they drained and enclosed their land and sought to rid themselves of their tenants.⁶⁶ Many tenants were relocated to the most marginal land, encouraged to emigrate or were even forcibly evicted to Canada.⁶⁷ The failure of the potato harvests in the 1840s, combined with their

⁶² St Kilda School logbook 1900-1930, TES, no pages.

⁶³ Anon, *Report of Her Majesty's Commissioners of Inquiry Vol 1*, 727.

⁶⁴ I. MacKinnon, 'Decommonising the mind': historical aspects of British imperialism on indigenous tenure systems and self-understanding in the Highlands and Islands of Scotland, *International Journal of the Commons* 12 (2018) 278-300, 288.

⁶⁵ Withers, *Gaelic Scotland*, 281-289.

⁶⁶ Withers, *Gaelic Scotland*, 245.

⁶⁷ E. Richards, *The Highland Clearances*, Edinburgh, 2016; J. Hunter, *The Making of the Crofting Community*, Edinburgh, 2018; T.M. Devine, *Clanship to Crofters' War: The Social Transformation of the Scottish*

exposure to a ‘boom-bust cycle of capitalist production’, made the islanders a ‘decidedly vulnerable society’.⁶⁸ Their situation was recorded in stark detail in a report of the Glasgow Section of the Highland Relief Board, a deputation of which toured the Outer Hebrides in 1849, which found ‘multitudes of people ... bearing the evidence of want of food on their countenances – living in miserable hovels – not a few miserably clad – children looking half starved and prematurely old – in short, misery, wretchedness, and destitution in many a form.’⁶⁹ Similar observations were made thirty years later in the Napier Commission Report and in the 1902 Report by the Crofters’ Commission on the social condition of the people of Lewis, although improvements since the potato-famine years of the mid-century were also observed.⁷⁰

Symonds notes that by the end of the nineteenth century it was common to portray dispossessed Highlanders and Islanders as inhabiting a victim culture.⁷¹ Crofters and cottars were judged to be resistant to change and associated ‘in popular consciousness with material and cultural impoverishment’.⁷² Their treatment can be understood as akin to Kelman et al’s vulnerability process, whereby limited livelihood options, restricted access to land and resources and disruptions to ways of life and community connections created conditions of marginalization, disadvantage, impoverishment and exploitation.⁷³ Extreme weather revealed and further exacerbated already high levels of social vulnerability amongst local families. As it will be argued below, islanders’ social vulnerability created the conditions of a double exposure, whereby they were made increasingly susceptible to both economic shocks and environmental threats.

Extreme weather and school attendance

Highlands, Manchester, 2013; T.M. Devine, *The Transformation of Rural Scotland: Social Change and the Agrarian Economy, 1660–1815*, Edinburgh, 1994.

⁶⁸ J. Symonds, Toiling in the Vale of Tears: Everyday life and resistance in South Uist, Outer Hebrides, 1760–1860, *International Journal of Historical Archaeology* 3 (1999) 101–122, 104.

⁶⁹ Brown et al, *Report on the Outer Hebrides*, 9.

⁷⁰ House of Commons, *Report to the Secretary for Scotland by the Crofters’ Commission on the social condition of the people of Lewis in 1901, as compared to twenty years ago*, HMSO, 1902.

⁷¹ J. Symonds, Poverty and progress in the age of improvement: Evidence from the Isle of South Uist in the Outer Hebrides, *Historical Archaeology* 45 (2011) 106–120.

⁷² MacKinnon, ‘Decommonising the mind’, 288; T.M. Devine, *Clearance and Improvement: Land, Power and People in Scotland 1700–1900*, Edinburgh, 2006, 24–25; W.C. Mackenzie, *History of the Outer Hebrides (Lewis, Harris, North and South Uist, Benbecula, and Barra)*, London, 1903.

⁷³ Kelman et al, Learning from the history of disaster vulnerability.

Extreme weather had a number of specific impacts on children and their education across the Outer Hebrides. By far the most frequently recorded impact of extreme weather on education in the Outer Hebrides was that it prevented children from attending school or affected their ability to study once there. Heavy rain meant that children often arrived in wet clothes. School teachers frequently remarked on how poorly clothed the children were. At Grimsay on 4 February 1881, several of the younger children, who were ‘wretchedly clothed, sat shivering in their seats’, were given a seat near the fire during the afternoon.⁷⁴ Similarly, it was recorded that there were fewer in school between 22-29 February 1884 due to severe weather, but also because of illness ‘caught from damp clothes and wet feet.’⁷⁵ At Bragar on 13 January 1899 the children arrived at school drenched from heavy rain so school was only held for half a day.⁷⁶ At Baleshare, North Uist on 24 October 1913 it was noted that: ‘Today the weather is so very stormy that school was held without a break from ten till two, when the children were dismissed, as some of them were sitting in wet garments.’⁷⁷ At Mingulay, an island south of Barra, the teacher observed on 24 February 1905 that the children were ‘poorly clad for stormy weather’, there being storms of wind and hail showers.⁷⁸

Lack of shoes was a widespread problem in the Outer Hebrides and children continued to walk in bare feet well into the twentieth century (Fig. 3). At Barvas, on 28 January 1881 it was noted that due to a snow storm several children who were ‘very badly off for shoes’ could not attend until the snow disappeared.⁷⁹ Following heavy falls of snow and drifts through the night on 8 January 1892, the teacher remarked that ‘the doors of many of the houses were completely snowed up. I did not expect a single child at school, and was rather surprised when sixteen put in an appearance.’⁸⁰ A similar situation was observed at Tigharry and at Claddach Kirkibost Schools, North Uist, where there were numerous incidents of low attendance through the late 1880s and 1890s due to frost, snow and a lack of boots amongst the children.⁸¹ The school at Aird was also closed due to heavy snow, but when it reopened the rest of the week’s attendance was small because children without shoes did not attend, the

⁷⁴ Grimsay School logbook 1880-1907, TES, 20.

⁷⁵ Grimsay School logbook 1880-1907, TES, 69.

⁷⁶ Bragar School logbook 1878-1902, TES, 449.

⁷⁷ Baleshare School logbook 1899-1918, TES, 225.

⁷⁸ Mingulay School logbook 1875-1910, TES, 242.

⁷⁹ Barvas School logbook 1878-1902, TES, 66.

⁸⁰ Barvas School logbook 1878-1902, TES, 264.

⁸¹ For instance, Claddach Kirkibost School logbook 1885-1901, 2 December 1886, TES, 32; Tigharry School logbook 1874-1908, 31 March 1876, 20.

ground still being covered with snow.⁸² At Loch Croistean on 29 October 1880 attendance was very bad due to snow, which was ‘keeping back the bare footed children’.⁸³ At Bragar, on 20 December 1889, during a period of cold, stormy weather, the ‘Want of shoes and scarcity of clothing suitable for this cold weather are the excuses of the times.’⁸⁴ The lack of adequate footwear for such conditions continued until the twentieth century – in late November 1904 the school at Loch Croistean had been closed on one day due to the severe weather and attendance for the remainder of the week had been ‘in a backward state chiefly on account of the snowy state of the weather. Many of the children are without boots and cannot attend school barefooted in such weather.’⁸⁵ The following year it was again noted that: ‘Some of the pupils in the lower classes attended rather irregularly during this week as the weather was so frosty and some of them have no boots.’⁸⁶

Fig 3. Photography of shoeless school children at Eoropie Ness, the most northerly village of the Isle of Lewis, c1908. Copyright: Tasglann nan Eilean.

School logbooks frequently described how children who often lived several miles away struggled to walk to school. Roads and tracks that crossed moorland, bogs or water bodies were poorly maintained and could be blocked by snow or rendered impassable due to flood waters. Extreme weather exacerbated the poor state of the roads. Strong winds and rain prevented children leaving their homes or returning home. Fear of impending bad weather would also discourage children from attending school or force schools to close early. For example, at Bayble on 17 December 1880, ‘The unusual and continued severity of the weather threatens to affect the progress of the school seriously. Owing to the badness of the roads and the long distance many of the scholars have to come, the Compulsory Officer can do little to improve the attendance, in the circumstances.’⁸⁷ At Castlebay on 8 December 1893 the school had been dismissed at lunch, ‘a great number of parents came to take their children home on account of a violent storm which had sprung up since the morning; and the force of the wind being such as to render pedestrianism rather dangerous. I [the school teacher] took advantage of the parents to see them all safe home.’⁸⁸ At Northbay it was noted

⁸² Aird School logbook 1879–1908, 19 December 1884, no page.

⁸³ Loch Croistean School logbook 1879–1906, TES, 22.

⁸⁴ Bragar School logbook 1878–1902, TES, 250.

⁸⁵ 25 November 1904, Loch Croistean School logbook 1879–1906, TES, 453.

⁸⁶ 29 November 1905, Loch Croistean School logbook 1879–1906, TES, 477.

⁸⁷ Bayble School logbook 1877–1929, 66.

⁸⁸ Castlebay School logbook 1882–1913, TES, 186.

on 16 January 1891 that the school had been closed for three days the previous week due to a severe snow storm. The Compulsory Officer had visited parents, but they refused to send their children to school in such severe weather.⁸⁹ Even in the 1920s and 1930s, children from outlying villages on the Isle of Lewis were unable to attend the Nicolson Institute in Stornoway due to stormy weather.⁹⁰

An entry on 14 February 1902 in the school logbook at Northbay suggested that teachers suspected islanders were using the weather as an excuse for their children's absence, it being recorded that despite over 40 defaulters having been reported to the Board at the end of January, it had little effect: the 'C.O. [compulsory officer] declares himself to be at his "wits end"; finds children, who live within 10 minutes' walk of school and who cannot attend on account of weather, going on errands three miles away and carrying heavy loads all that distance.'⁹¹ Lack of shoes and poor clothing were also suspected as being used as excuses to keep children at home. The Napier Commission made a point of responding to the way in which schoolmasters framed parents' apparent attitudes to their children's education. The Report was critical of parents and agreed that excuses for non-attendance were often trifling, but went on to note that:

no humane person can blame those who keep their children at home on days when they could not go a quarter of a mile without being wet to the skin. The number of such days in the Highlands and Islands is considerable, and so is the number of children whose clothing is scanty and poor. They are a hardy race, and have little dread of weather; but in the calculation of the average number of days of attendance entitling to a Government grant, we think there should be some consideration of the physical facts peculiar to the district. Such are the inclemency of the weather during a great part of the year, the distances which many of the children have to walk, the want of roads and bridges in some places.⁹²

Before the construction of causeways that now connect some of the islands, gales and high tides could result in children and teachers being storm-stayed. In the case of the island of

⁸⁹ Northbay School logbook 1883–1909, TES, 125.

⁹⁰ Nicolson Institute School logbook, Stornoway, 1930–1951, 9 April 1934, TES, 480.

⁹¹ Northbay School logbook 1883–1909, TES, 331.

⁹² Anon, *Report of Her Majesty's Commissioners of Inquiry*, 74.

Scarp, passage was often problematic across the Kyle of Scarp to Hushinish on Harris because of shallow water and swell that made landing difficult. Scarp's school logbook features numerous references to the teacher being unable to cross by boat and having to stay at Hushinish, as well as boats being unable to reach Tarbert and having to anchor in the sheltered bay at Amhuinnsuidhe, further along the coast. This resulted in food shortages and relief by the Royal Navy on 8 February 1918 after an S.O.S. was sent by the doctor and teacher on the island.⁹³ At Lochmaddy on 20 June 1890 it was noted that the 'weather had been 'very stormy' and consequently the teacher did not mark the register in the afternoon or open school, as all the stormbound children were absent.⁹⁴ The smaller islands of Mingulay and Vatersay, south of Barra, experienced similar problems. The school at Mingulay was regularly deprived of its teacher due to them being storm-stayed at Castlebay.

Clothing, heating and illness

Schools and teachers sought to mitigate some of the effects of extreme weather on their pupils. For example, at Garrynamonie, South Uist, following a wet morning when few children attended and school was cancelled, it was suggested that children coming from a distance should be provided with a long cloak: 'The adoption of this plan should improve attendance on very wet days when the children arrive in a dripping condition or their parents refuse to send them to sit in wet clothing all the day.'⁹⁵ A fund was established to pay for the supply of the cloaks, which were to be lent to the poorest children. On 8 January 1912, following a severe frost and snow showers driven by the wind, soup was distributed at Garrynamonie school, 'which was much appreciated especially by those coming from a distance.'⁹⁶ Soup was distributed again on wet days during the winter and into the spring months. At Bayble on 18 December 1914, several families said they had no food and could not provide boots for their children. The teacher raised the issue with the School Board, who was referred to the Prince of Wales Relief Fund Committee.⁹⁷

Given the poor heating and clothing provision, it is unsurprising that extreme weather also had implications for the islanders' health. It was often observed that extreme weather coincided with outbreaks of disease, illness and epidemics like cholera, measles, scarlet

⁹³ Scarp School logbook 1915–1933, TES, 48.

⁹⁴ Lochmaddy School logbook 1877-1900, TES, 283.

⁹⁵ 12 May 1905, Garrynamonie School logbook 1879–1912, TES, 398.

⁹⁶ Garrynamonie School logbook 1879–1912, TES, 486.

⁹⁷ Bayble School logbook 1877–1929, TES, 76.

fever, small pox and typhoid, which, in turn, led to school closure, illness and poor school attendance. Illnesses and diseases were frequently discussed in parallel with weather conditions and sometimes the former was blamed on the latter.⁹⁸ At Garrynamonie, the school was closed on numerous occasions due to disease outbreaks. At Aird on 5 January 1889 it was noted that ‘so much time has been lost this year owing to the prevalence of Scarlatina in the district and owing to stormy weather’, and on 2 April 1897 that the ‘Influenza and weather growing worse and worse’.⁹⁹ At Bayble on 30 January 1894, it was a ‘very stormy day and the school was closed, with ‘a great many children absent for weeks on account of Influenza, sore throats, colds, skin eruptions, want of boots and clothes and the boisterous unsettled state of the weather.’¹⁰⁰ At Castlebay on 6 March 1891 it was noted that the attendance that week had been the worst yet. A storm which lasted from Monday through to Friday, accompanied by bitter cold, had ‘assisted the influenza most effectively in depleting the school.’ Later that month, on 28 March 1891, the teacher recorded that ‘attendance this week was wretched in the extreme owing to bitterly cold stormy weather, which seems to have given renewed strength to the influenza as the compulsory officer reports that most of the absentees afflicted with cold.’¹⁰¹ At Grean School, also on Barra, it was observed that ‘There is sickness among the children which along with severe weather all the week has caused a decline in the attendance.’¹⁰² At St Kilda on 29 February 1924, attendance had been affected by a severe cold among the children. The weather had also been very cold with a fall of snow.¹⁰³ In contrast, at Grimsay on 12 February 1892, a sudden rise in attendance was noted, ‘the weather being excellent and all the children having recovered from influenza.’¹⁰⁴ Like extreme weather, illness was viewed by some teachers as an excuse used by parents: for instance, at Bayble on 15 November 1898 the teacher remarked: ‘The measles cases are used as an excuse by many parents to withhold their children from school.’¹⁰⁵

Damage to school buildings

⁹⁸ Garrynamonie School logbook 1879–1912, 9 February 1912, TES, 487.

⁹⁹ Aird School logbook 1879–1908, TES, no dates.

¹⁰⁰ Bayble School logbook 1877–1929, TES, 354.

¹⁰¹ Castlebay School logbook 1882–1913, TES, 139 and 140 respectively.

¹⁰² Grean School logbook 1910–1963, 26 January 1917, TES, 65.

¹⁰³ St Kilda School logbook 1900–1930, TES, no page.

¹⁰⁴ Grimsay School logbook 1880–1907, TES, 240.

¹⁰⁵ Bayble School logbook 1877–1929, TES, 437.

Extreme weather routinely caused damage to school buildings, as well as to other local property, infrastructure and crops. School logbooks detailed frequent instances of slates and tiles being blown off school roofs, windows broken, schoolrooms flooded or snowed in, or damage done to other local buildings. For instance, at Bragar on 10 March 1882 the teacher noted: ‘I wrote to Mr McKenzie stating that slates had been blown off the roof of the school and kitchen door broken open by gale of 9th [March].’¹⁰⁶ At Lochmaddy on 13 February 1888 slates were blown off the roof during the night and a chimney was damaged.¹⁰⁷ The school room was described as being in a very uncomfortable condition with water coming through the ceiling. Later that year, on 23 November 1888, the teacher reported: ‘Have written to Clerk of Board about state of school. Pool of water lying all round door both of school and school house while inside school floor has been covered with a pool of water for two or three days.’¹⁰⁸ At Castlebay on 16 January 1899 the teacher had to close the school because it had been flooded. There are numerous instances of the same school being closed due to flooding over the following half century.¹⁰⁹ On 1 December 1936 the janitor reported that two panes of glass had been blown in and broken by the previous day’s gale.¹¹⁰ On 6 December 1940 the occurrence of a severe gale was recorded. That morning one of the large window frames had been found blown in and had to be boarded up. Forty-three pupils had attended, but ‘class instruction was well-nigh impossible owing to the noise’. The manager was called in to inspect the damage and reported that: ‘Not a window in the school is watertight, and the small lower panes have to be wedged shut, because of defective catches’.¹¹¹ At Northbay, also on Barra, on 27 February 1903 it was noted that: ‘In consequence of last night’s heavy rain and the unslated condition of a large area of the school roof, both classroom and main room are flooded’, consequently the children were dismissed before 10.30am.¹¹² Later that year on 8 September it was noted that whilst it had been attempted to open the school ‘the high wind carried the dry lime [from the fields] into every corner of the school, and everything had a thick coat of dust. School closed for day.’¹¹³

¹⁰⁶ Bragar School logbook 1878–1902, TES, 76.

¹⁰⁷ Lochmaddy School logbook 1877–1900, TES, 188

¹⁰⁸ Lochmaddy School logbook 1877–1900, TES, 220.

¹⁰⁹ Castlebay School logbook 1882–1913, TES, 267 and 326 and Castlebay School logbook 1913–1943, TES, 111.

¹¹⁰ Castlebay School logbook 1913–1943, TES, 234.

¹¹¹ Castlebay School logbook 1913–1943, TES, all quotes from p278.

¹¹² Northbay School logbook 1883–1903, TES, 349.

¹¹³ Northbay School logbook 1883–1903, TES, 358.

Problems with leaking roofs, broken window panes and draughty buildings were exacerbated by insufficient funds for fuel. A lack of fuel for heating and poor insulation during extremely cold periods meant that schools were uncomfortable environments for learning and often had to be closed. School boards sometimes provided coal or other fuel, although at Castlebay on 6 December 1889 the teacher complained that ‘Coals have not yet been provided by the Board, and as the children are not over-anxious to bring peats, there is some hardship from insufficient heating.’¹¹⁴ The lack of heating persisted – on 3 January 1890 the attendance had been very unsatisfactory due to the ‘extremely cold and stormy weather. The insufficient heating of the school is an additional cause of the low attendance.’¹¹⁵ In other cases, children were encouraged to bring their own fuel to school in the form of peat, but many families were not keen to do so, given that it was needed at home.

Some of the entries describing damage to school buildings also referred to damage to houses and property nearby. At Grimsay, a ‘fearful gale’ started on 21 November 1881 and caused immense damage and destruction for several days: ‘Nearly all the boats belonging to the Islanders were smashed to pieces, houses unroofed, stacks carried away, vessels wrecked &c. None could venture out of doors and consequently there was no school.’¹¹⁶ At Bragar, on 2 October 1882, another storm blew the roofs off many of the houses and the ‘crops cut were blown away in all directions; a great deal of them being blown into the ocean. All the place is in a great confusion.’¹¹⁷ This latter storm remained in the memory of the inhabitants and was discussed twenty years later in the 1902 Crofters’ Commission *Report* on the social condition of the people of Lewis. The *Report* claimed that the winter of 1882-3 was ‘perhaps the blackest in the modern history of Lewis.’¹¹⁸ The gale on 1 October 1882 had swept away the hay and corn crops. In some districts, half of the grain crops were lost, rising to three-fourths in others. This coincided with insufficient potatoes for seed, many of which were either diseased and unsuitable for planting or had to be eaten. The Commissioners reported that many of the inhabitants were ‘in absolute want’.¹¹⁹ The close association between the storm event and the islanders’ social vulnerability to food scarcity was identified by the

¹¹⁴ Castlebay School logbook 1882–1913, TES, 112.

¹¹⁵ Castlebay School logbook 1882–1913, TES, 113.

¹¹⁶ Grimsay School logbook 1880–1907, TES, 28.

¹¹⁷ Bragar School logbook 1878–1902, TES, 86.

¹¹⁸ *Report to the Secretary for Scotland*, xvi.

¹¹⁹ *Report to the Secretary for Scotland*, xvi.

Commissioners, who observed that the crofters' land agitation began around 1882 and 'took a strong hold in Lewis.'

A similar link between weather, crofting and land management was made by the Harris crofter Kenneth Macdonald in his evidence to the Napier Commission in 1883. Macdonald claimed that the soil had deteriorated due to overcropping, which was in turn due to the reduction in the availability of land for crofting and the crowding together of crofters on marginal land. In his testimony, Macdonald noted the lack of snow and frost in recent years. The Chairman asked him directly: 'Then you think the climate has altered, and altered for the worse?' Macdonald replied: 'For the worse, because we very seldom see snow, and frost we have no continuance of'. Macdonald went on to complain about the 'constant rains' and 'blustering winds continually' that took away the good soil.¹²⁰ Macdonald's complaint was not an isolated one. Many crofters interviewed by the Napier Commission complained of being crowded together on insufficient, poor-quality land, while proprietors gave land over to large farms. Unrest against landlords' land management practices peaked in the 1880s with rent strikes, destruction of property and violence, which led ultimately to the 1886 Crofters Holding (Scotland) Act. This Act gave crofters rights to fair rent, security of tenure and protection from arbitrary eviction.¹²¹

Conclusion

This paper has demonstrated the value of school logbooks for the production of historical geographies of the weather. School logbooks provide a rich and underused source for historical and cultural geographers and environmental historians interested in the intimate relations between people and their natural and social environments. Although their purpose was not principally to record the weather, Scottish school logbooks provide detailed qualitative records for a relatively large number of sites across a given region, especially in remote areas where communities were not clustered together in one place and numerous schools were required. Our study shows that school teachers recorded extreme weather and its effects routinely and in significant detail. Like Foley's study of an Orkney logbook, our analysis of school logbooks from across the Outer Hebrides reveals the profound effects that day-to-day weather and seasonal climates had on the communities' lives and livelihoods.

¹²⁰ Anon, *Report of Her Majesty's Commissioners of Inquiry Vol 2*, all quotes from p857.

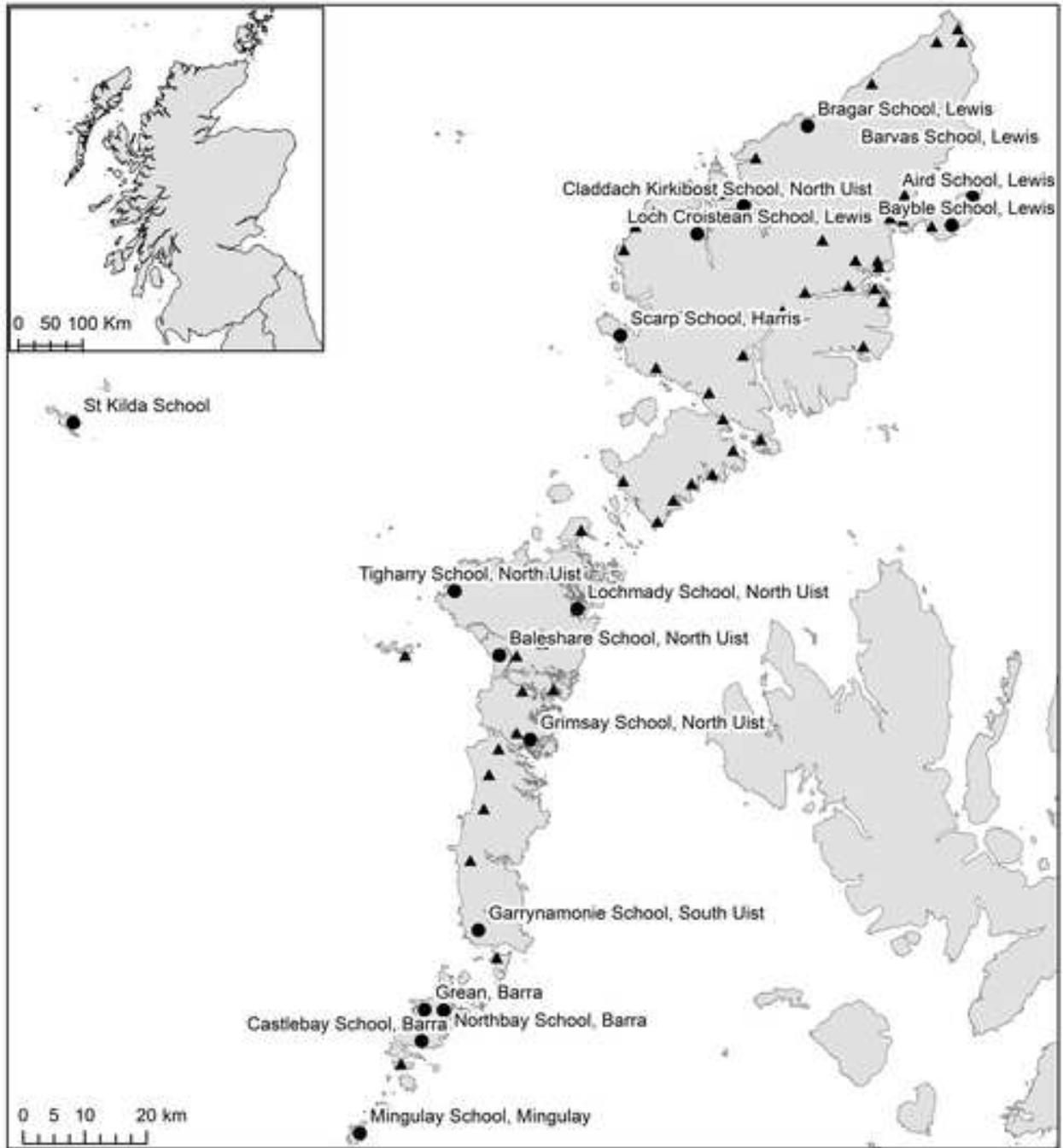
¹²¹ Withers, *Gaelic Scotland*, 372.

Analysis of the school logbooks has shown that islanders lived in weather places and a weathered world, where their everyday lives were routinely affected by strong winds, heavy rain, storms and snow.

Despite the fact that the Outer Hebrides experienced particularly challenging weather over the final third of the nineteenth century, it has been argued that the communities' sensitivity to extreme weather was principally due to their social vulnerability. Islanders' vulnerability was a long-term process related to their marginalisation, impoverishment and exploitation by landowners over the course of the nineteenth century – a double exposure to social and environmental forces that exacerbated one another's effects. The 1886 Crofters Act ameliorated this process somewhat, although the logbooks document a society that continued to live in significant material poverty well into the twentieth century. As well as recording the effects of extreme weather on school attendance, teachers often portrayed local children and their parents as resistant to education in particular and ideas of modernisation in general, using examples of parents' decisions to keep their children away from school as an illustration of their cultural impoverishment. In response to Pfister's call for studies of social vulnerability to climates in the past, this study of the local and regional historical geographies of extreme weather for the Outer Hebrides has shown how the weather was not always a universal experience, but rather affected certain communities more than others, materially and culturally.

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Figure

[Click here to access/download;Figure;Figure 3 School boys, Eoropie Ness.jpg](#)

