

“Snow Scenes”: Exploring the Role of Memory and Place in Commemorating Extreme Winters

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ABSTRACT

Scholars are increasingly focusing on the cultural dimensions of climate, addressing how individuals construct their understanding of climate through local weather. Research often focuses on the importance of widespread conceptualizations of mundane everyday weather, although attention has also been paid to extreme weather events and their potential effect on popular understandings of local climate.

This paper introduces the “Snow Scenes” project, which aimed to engage rural communities in Cumbria, England, with their memories of extreme and severe past winter conditions in the region. Collating memories across a wide demographic, using a variety of methods, individual memories were analyzed alongside meteorological and historical records.

By exploring these memories and their associated artifacts, this paper aims to better understand the role of memory and place in commemorating extreme winters. First, it is demonstrated how national narratives of exceptional winters are used by individuals as benchmarks against which to gauge conditions. Second, this paper identifies how specific locations and landmarks help to place memories and are shown to be important anchors for individuals’ understanding of their climate. Third, the paper considers how memories of severe winters are often nostalgic in their outlook, with a strong association between snowy winters, childhood, and childhood places. Fourth, it is illustrated how such events are regularly connected to important personal or familial milestones. Finally, the paper reflects on how these local-level experiences of historical extreme events may be central to the shaping of popular understandings of climate and also, by extension, climate change.

1. Introduction

The relationship between climate and culture has been subject to scrutiny in recent years. In part because of the predominance of scientific discourse within climate change debates, and in part the increasingly global scale of climate thinking in this respect, it has been argued that climate and its local, cultural significance have, in effect, become decoupled (Hulme 2009). In response, academics have highlighted the importance of studying the cultural dimensions of climate knowledge (e.g., Rayner and Malone 1998; Hulme 2009, 2013; Jankovic and Barboza 2009; Hitchings 2010; Endfield 2011). It is

increasingly being recognized, for example, that climate “means different things to different people in different contexts, places and networks” (Hulme 2009, p. 325). Thus it is important to situate knowledge claims, particularize climatic experience, and draw out the plurality of meanings around climate and what constitutes climatological expertise (Livingstone 2012). In practical terms, this means separating short-term and local weather events from longer-term and global climatic trends, and investigating the everyday or “mundane” experiences of the weather rather than climate change per se (Hulme 2008; Hitchings 2011). Indeed, as Eliza de Vet argues, “in terms of everyday human experience, climate and long term climate change takes expression through specific local weather patterns” (de Vet 2013, p. 198).

Experience of everyday weather is thought to have an influence on popular understandings of both local and global climatic change. Local circumstances, the

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“everyday experiences and locality,” or the situated nature of climate through local weather are increasingly being recognized as fundamental to understanding how the public perceives, responds and adapts to climate change (Lorenzoni and Pidgeon 2006, p. 80; Palutikof et al. 2004). As such, an understanding of experiential knowledges of local weather is thought to be central to the development of more comprehensible and appropriate climate change risk communication strategies (Marx et al. 2007).

The way in which an extreme event is experienced, perceived, and understood determines whether it becomes inscribed into the memory of a community or an individual in the form of oral history, ideology, custom, narrative, artifact, or technological and physical adaptation (Hassan 2000). The different forms of remembering and recording the past represent central media through which information about past events is curated, recycled, and transmitted across generations and into the future (Koselleck 1985). Vivid, vicarious experiences of particularly bad or extreme weather events in a particular place serve a powerful role in shaping memory (Forgas et al. 2009; Pillatt 2012). But memory is also very much a function of place, and place in turn has an important bearing on memory. Memory is spatially constituted and is strongly attached to key sites, both physical ones, such as local landmarks like churches, and also nonmaterial “sites” such as celebrations, traditions, or folklore (Nora 1989; Hoelscher and Alderman 2004, p. 349). It follows that experience or knowledge of weather events, but also of place and key sites, can have an important influence on how weather variability and weather events are recalled and remembered. Equally, as Pillatt (2012, p. 34) has argued, “the weather in which one stands can be as much responsible for generating a sense and use of place as the ground on which one stands.” Place thus plays a central role in influencing and shaping weather memories, and provides a frame of reference that helps to locate such memories (Hulme 2009), while at the same time weather contributes to the making and meaning of place. For all these reasons, recent work has begun to focus on the relationship of place and weather and on establishing the importance of locally place-specific experiences of weather in shaping weather memories and in understanding people’s perception of their local climate and how it may be changing, and in turn their understanding of nonlocal processes and their attitude toward global climate science (Strauss and Orlove 2003; de Vet 2013; Endfield 2014; Endfield and Naylor 2015; Hitchings 2010; Leyshon and Geoghegan 2013). There is a growing body of scholarship linking relational context and weather memory, including work on mundane

or everyday weather (de Vet 2013; Hitchings 2010; Geoghegan and Leyshon 2012), on popular experiences of “ordinary” weather and how this shapes individual and collective sense of place (Vannini et al. 2012), and the way in which different cultures “shape the way we think about and respond to the weather” (Strauss and Orlove 2003, p. 6). Attention has also begun to focus on the experiences of—and memories associated with—more extreme weather events, such as storms and extreme warmth or cold, and the influence that such phenomena can have on popular understandings of climate and climate change. For example, Capstick and Pidgeon (2014) focus on severely cold weather in the United Kingdom, highlighting how experience of these events consolidates common conceptualizations of such events as unnatural, and therefore a function of the reality of climate change. Gorman-Murray (2010, p. 62) explore the cultural significance of snow conditions in Australia and “how snow loss mattered culturally and emotionally, compromising local cultural activities and meanings and evoking emotive responses.” Maller and Strengers (2011), in contrast, focus on the urgency of research into extreme heat. Specifically, they highlight the need to better understand the influence of social and contextual factors on the adaptation potential of vulnerable communities in the context of climate change.

Equally, it is clear that it is important to understand the role of social processes in shaping local conceptualizations of severe or extreme weather, and also perceptions of societal vulnerability to these extremes (Spinney and Pennesi 2013). Indeed, as Vannini et al. (2012, p. 363) have argued, “the ways in which people experience and talk about weather . . . and the ways they sense and comprehend meteorological processes and draw significance from them are not only interesting but also particularly valuable keys to deciphering larger scale processes.” Exploring links between localized, place-specific extreme weather events and individual and collective conceptualization of these events should thus be seen as imperative if we are to better understand popular perspectives on climate and, by extension, changes in climate (Marx et al. 2007).

Given the limitations of technocratic and scientific narratives in communicating climate change science to the public, capturing information about local experiences of weather and its cultural inscription demands “engagement with the public in new and different ways” (Lejano et al. 2013, p. 62). The purpose of the “Snow Scenes” project has been to better understand the relationship between weather, memory, and place, through a case study-based investigation of public memories of extreme winters, specifically those associated with heavy rather than normal seasonal snowfall. It

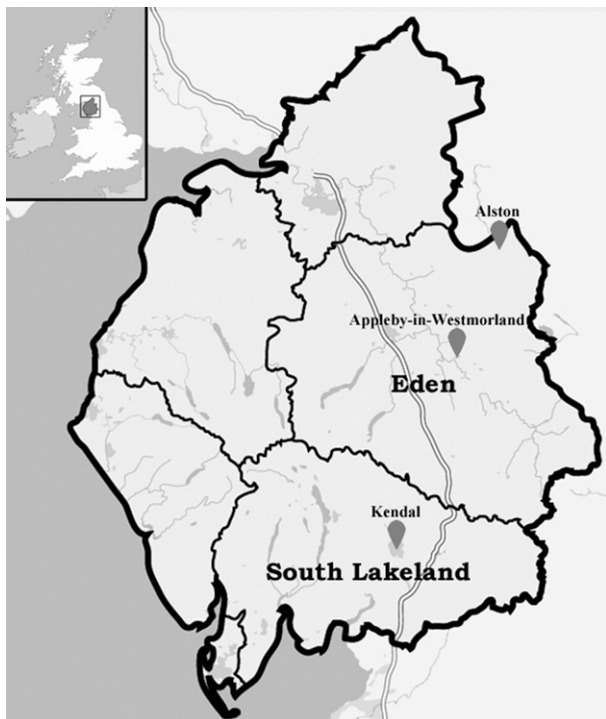


FIG. 1. A map of the case-study region (public domain).

represents, in [Gorman-Murray's \(2010, p. 62\)](#) terms, a “grounded empirical example” that argues for the importance of contingency in climate–culture relationships.

Recent harsh winters experienced in the United Kingdom, particularly in upland areas, have resulted in extreme cold and also snowy winters reentering the public imagination. Moreover, suggestions that in the future the United Kingdom should expect distinctly more unstable weather patterns, resulting in contrasting conditions from very mild, wet, and stormy to extremely cold and snowy have implications for policy and planning spheres of local and national government ([Hanna et al. 2015](#)). The case study area selected for our research focused on the historic counties of Cumberland and Westmorland, in Cumbria, in the northwest of England, with specific attention being paid to communities in the county town of Appleby-in-Westmorland ([Fig. 1](#)). This area was selected because of its exposure to severe and often snowy winters, which due to a varied topography can differ greatly in severity from one valley to the next. While snow is a relatively regular winter feature in this region of the United Kingdom, it is the unusually heavy, unseasonal, or prolonged periods of winter snowfalls, whether actual or perceived, that interest us in this research. The region has also long been the subject of inquiry by climatologists (e.g., [Manley 1936](#)), and many

communities in the area have a strong local connection with the weather and landscape ([Veale and Endfield 2014](#)). Climatologist Gordon Manley was among those to study the climatic characteristics of the area. His run of personally collected data helped to establish Great Dun Fell (847 m), close to Appleby, as a leading weather station and the site of the longest unbroken set of mountain temperature records in the United Kingdom.¹ Moreover, this area is the location of England's only named wind, the Helm Wind, which many people, including artists, scholars, and scientists, Manley among them, have studied ([Veale et al. 2014](#)). Even with such a long history of climatological interest, official meteorological snow records for the region are inconsistent, with only one nearby weather station, at Alston, maintaining a continuous record of snow levels during the second half of the twentieth century ([Met Office 1953–1992](#)).

We begin this paper by introducing the methodology adopted, which involved the incremental development of an integrated model of public engagement. Our methodology was designed to ensure that a cross section of participants were engaged in the research and, wherever possible, were more than passive informants to the research. We then introduce the preliminary results of the project, exploring four prominent themes that emerged in the memories we have collected. First we explore the role of the mass media and famous nationwide extreme winters in creating benchmarks for severe winter weather in Cumbria, emphasizing the importance of place in recalling memories and in normalizing extreme weather conditions. Second, we highlight the complex relationship between place, memory, and weather through an exploration of the geographical specificities of weather memory. In the third empirical section, we explore participants' nostalgic memories of past severe winters and demonstrate the linkages between winter weather memories, childhood, and childhood places. Finally, we consider how weather memories are strongly connected to important milestones in life ([Hoelscher and Alderman 2004, p. 351](#)). In the memories we have collected, we highlight the distinction between direct experiences and vicarious knowledge imparted to participants through family and community networks. We argue that to understand more about individual perceptions of climate and

¹ Today an Environmental Change Network automatic weather station stands at the site, which is part of England's highest and largest terrestrial National Nature Reserve (NNR), a UNESCO Biosphere Reserve, and a European Special Protection Area. Numerous universities and institutes have also focused on the impact of land climate change in these uplands.

climate change, analysis must be situated within the context of specific places, communities, and individuals' lived experiences of extreme weather. Finally, we reflect on the key findings to emerge from the research and identify the potential for building on this with future work on the relationship between experience, memory, and understanding of contemporary and predicted climatic changes.

2. Methods for engaging the public with weather extremes

In recent years scholarship has explored the increasingly prominent role academics are giving to public engagement in their research (Cantor and Levine 2006). Knowledge production is no longer just the purview of scientific experts. (e.g., Collins and Evans 2002; Eden et al. 2006). This is evident in a range of studies that have demonstrated the value of contributions from environmental volunteer groups (e.g., Bell et al. 2008; Ellis and Waterton 2004, 2005; Lawrence and Turnhout 2010; Byron and Curtis 2002). Studies that not only aim to engage with the public but are also themselves reliant on community participation to generate the primary research itself present many challenges. An approach where institutions place pressure on researchers to engage with the public and academics engage in an uncreative and uncritical manner can often result in underdeveloped, "tokenistic" public engagement activities (Fuller 2008). In Snow Scenes, efforts were made to achieve a meaningful dialogue with target communities by fostering engagement through a variety of different platforms, while remaining creative and reflexive with the methodology developed.

A multiplatform approach

Our goal was to engage a broad cross section of the communities in the region, collecting their memories of periods of extreme winters, using a combination of methods. The collection of data occurred during the period September to March, to coincide with winter.

A staged approach was adopted. First, articles on the project were featured in regional newspapers, local interest-group newsletters, specialist interest group online forums, and parish newsletters, as well as on local radio, with a project team member inviting listeners to submit their memories live on BBC Radio Cumbria. Through these articles we encouraged people to submit a written submission via post or e-mail, which allowed participants to recall memories in their own time, in some detail, and without feeling pressured.

Second, direct community engagement was also achieved through a postcard experiment. For this we

developed an approach that mirrored the work of the Association for the Study of Snow and Ice,² which during the 1930s and 1940s distributed postcards nationwide, including in this region, for volunteers to submit snow measurements (Manley 1941; Fig. 2). The original postcard submission scheme, which required participants in upland areas to make a weekly submission recording snow cover throughout the winter, was encouraged and supported by the climatologist Gordon Manley, who had a longstanding interest in the upland fells in our case-study location (Veale and Endfield 2014). Our postcards invited respondents to record a particular snow memory and return it to the Snow Scenes team (Fig. 2). The terminology on the postcard was left deliberately open to allow respondents to express whatever subjective memories and experiences they wished to share. Memories submitted may relate to events that the respondent considered extreme, or simply those events they recall from what might be considered normal winter conditions, but which have assumed prominence in their memory for different reasons, not least because of a link to a particular context, life event, or experience.

The postcards were distributed across the region via tourist information centers, community centers, museums, art galleries, local shops, and hotels. Posters advertising the postcard experiment were also distributed across the area and displayed in shop windows, libraries, and other public spaces. To maximize resources the postcards and posters were distributed across two local districts, Eden and South Lakeland, rather than the county as a whole. These two districts cover a diverse range of economic activities and land use, with South Lakeland lying largely in the Lake District National Park (Fig. 1).

Finally, in order to achieve direct interaction, toward the close of the period of data collection we held a community workshop, where residents could share their memories orally and bring along relevant artifacts such as photographs, personal or family diaries, and newspaper clippings, and where we as the project team could share some of the materials we had collected by this stage including photographs, film footage, and postcards. Rather than eliciting narratives and memories through key questions, we hoped the workshop would allow stories and memories to emerge spontaneously, much in the same way as recent research into

²The Association for the Study of Snow and Ice was founded in 1936 to encourage research on and stimulate interest in the study of snow and ice in the form of glaciers especially. It was established by keen skier and alpinist G. A. Seligman (1886–1973), who later transformed the association into the British Glaciological Society. Seligman also founded the *Journal of Glaciology*.

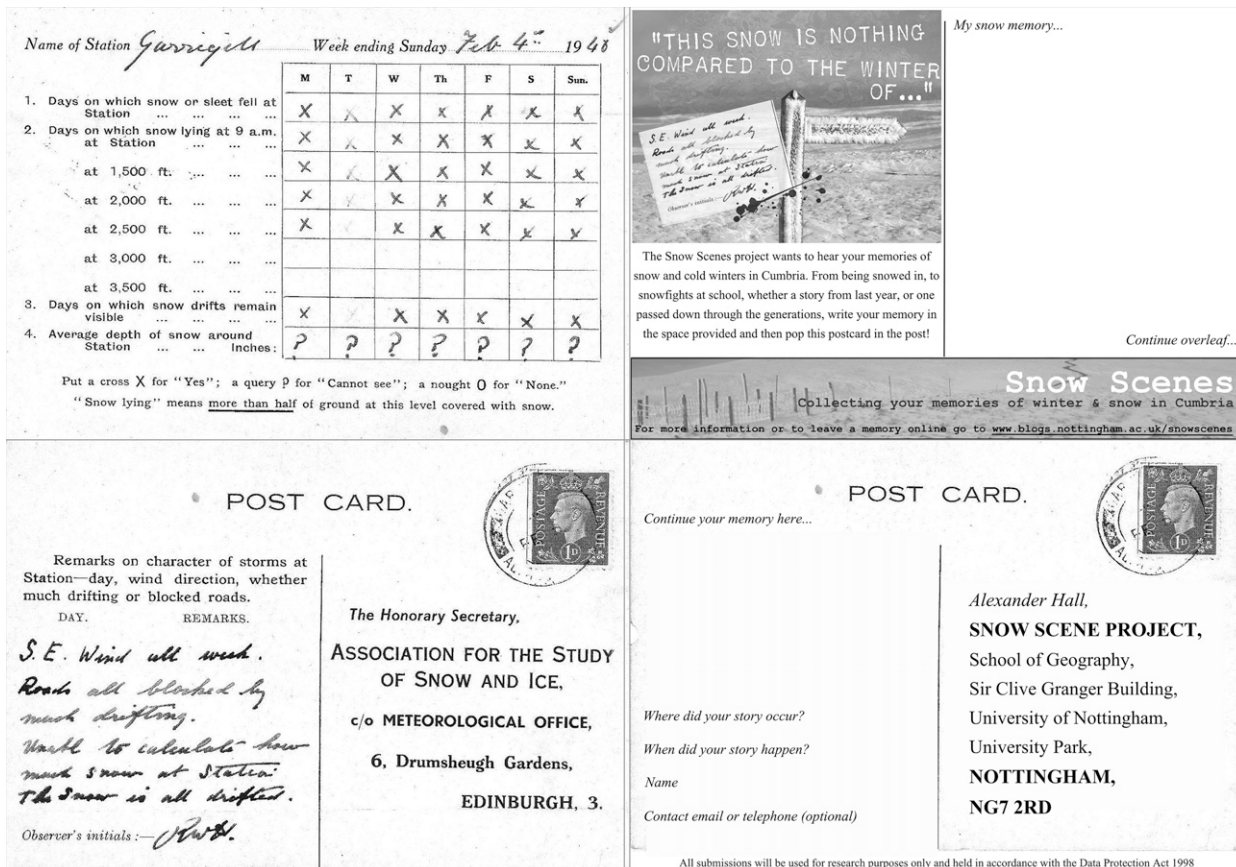


FIG. 2. (left) The front and back of the original National Snow Survey postcards used in the late 1930s (Gordon Manley Papers MAN 3/3) and (right) the front and back of the postcards distributed as part of the “Snow Scenes” project.

experiences of other extreme events has been conducted (see, e.g., [Smith and Kain 2010](#)).

Our research drew upon the archive of local photographer Joseph Hardman (1893–1972), held at the Museum of Lakeland Life and Industry in Kendal (Fig. 1). With over 500 photographs in the collection featuring Lakeland snow or winter scenes, we used the images to generate discussion when recruiting participants, while also aiding the museum by trying to locate where the photographs had been taken. When we located one of the images, we took a photograph of the location in the present day. The two images were then merged to create a series of composite digital images (Fig. 3), which highlighted how severe winter events in the region have occurred against an ever-changing place-based backdrop. Fourteen of these composite digital images were then exhibited at the museum, further promoting participation in the project to a broad cross section of society.³ In

³For more on the process of creating the composite images see [Hall \(2014\)](#).

addition to boosting the number of postcard submissions we received, the exhibition also helped us to consider further the role place-specific images play in forming people’s memories of extreme weather events; images have recently been shown to play a key role in popular engagement with the issue of anthropogenic climate change ([Nerlich and Jaspal 2014](#)).

In parallel with these approaches, we used a project blog and Twitter account to encourage online participation, with regular blog posts about the progress of research used to maintain interest and submissions via the website. By coordinating the blog content with the postcard experiment and community event, problems relating to the interpersonal disconnect that can often accompany online engagement were minimized ([Ridge-Newman 2011](#)). In the final stages of the project, follow-up publicity through local media was again used to encourage continued participation via postal and online submissions.

Creating a framework that had so many opportunities for public engagement is not without its pitfalls. Design biases, such as how the method and technology used



FIG. 3. Skating through Time: A composite image depicting ice hockey on a frozen Rydal Water in 1947 and the same lake today (Alexander Hall © 2014).

for a participant's submission might have influenced who responded (nonrespondent bias) and the content of their response (data validity and accuracy), were taken into consideration (White et al. 2005). Rather than viewing the collection of data using different methods as a *problem* for comparative analysis across the information compiled, we used it to actually *inform* the effectiveness of the experimental design as we and our respondents moved through the project. The design of the project and the staged approach to the research were thus influenced by both the medium and the content of the initial submissions we received. For example, when a participant submitted a digital photograph or personal reflection via social media, we contacted them and asked if anyone in their family had any comparative older photographs or reflections, inviting them to share them and hear about others' accounts of the same events at our public workshop.

By treating participants as informants, who were helping to shape the project in this way and who shared information with each other as well as with us, we attempted to avoid criticisms of dichotomous models of public engagement (Cooke and Kothari 2001; Kothari 2001) and of participatory research methods that are too singularly oriented toward social change (Cahill 2007; Pain 2004).

The memories, submissions, and artifacts collected were all analyzed. Narrative texts (drawn from postal and e-mail correspondence, postcards, tweets, and

blog responses) were entered into a simple Excel database along with basic metadata about the informant and the place associated with the memory they were sharing. Photographs shared directly or via social media were logged with details of source, date, and location. Materials were read and analyzed in conjunction with historical and archival records from the area, including regional newspaper archives, county and school records, local oral history collections, and meteorological records (Table 1). Most notable of these preexisting sources were over 450 interviews on Cumbrian life recorded from 1976 onward by the Ambleside Oral History Group (AOHG), the transcripts of which were mined for references to snow and severe winters, with relevant extracts being added to our database.

Because of the diversity of materials collected, all materials were read alongside each other, compared, and coded manually. Through this process a set of key themes was identified, falling broadly into four overarching categories: memory and benchmarking extreme winters in the area, the role of place in weather memory, weather memory and nostalgia (specifically in relation to childhood memories), and, finally, the association between weather events and key life events.

The Snow Scenes database currently contains 156 participants' memories of severe winters in Cumbria, consisting of letters, diary entries, postcard entries,

TABLE 1. Overview of the archives used for the “Snow Scenes” project.

Archival collection	Type of record	Location
Ambleside Oral History Group	Audio and written	Ambleside Public Library and online (http://www.aohg.org.uk/)
The British Film Institute	Audiovisual	Online
British Library Newspaper Collection	Written	The British Library, London
British Library Sound and Visual Image Archive	Audio	The British Library, London
The National Archives of the United Kingdom	Written and photographic	Kew, London
Cumbria County Archives	Mixed	Kendal Archive Centre
Gordon Manley Papers	Written	Cambridge University Library and Durham University Library (GB-0033-MAN 3/3)
The Hardman Collection	Photographic	Museum of Lakeland Life and Industry and online
Met Office Weather Station Records	Written	Online
Reports of the Snow Survey of Great Britain	Written	Online

audio and video recordings, and photographs.⁴ In the following sections we consider some of the key themes that have emerged across the materials collected, all of which highlight the complexity of the relationships of climate, extreme weather, place, and memory among our participants.

3. Benchmarking and placing extreme winters in Cumbria

As Gorman-Murray (2010, p. 63) has argued, it is important to “explore local culture climate connections to show the importance of interpreting weather patterns and climate change through local meanings and values.” Different regional circumstances, particular physical conditions, an area’s social and economic activities, and embedded cultural knowledges, norms, values, practices, and infrastructures all affect the impacts of and responses to extreme weather. All have a bearing on how weather is experienced and interpreted. Respondents repeatedly referred to a number of recognized severe winters that affected the whole of the United Kingdom, including 1947 and 1962/63, the two most meteorologically severe winters in the United Kingdom during the twentieth century.⁵ While this is to some extent to be expected, the nature of many submissions that mention these winters provides us with

insight into the locally specific implications of these events, and also reveals how people place their own personal memories within the framework of national narratives. The collection and collation of such empirical evidence is central to understanding “the relationships between an individual remembering alone, an individual remembering in a group, and the group itself remembering” (Barnier and Sutton 2008, p. 177). Recognizing and understanding further the influence of national and group narratives on individual memories of extreme weather is imperative for any detailed assessment of how individuals construct a personal understanding of their local climate.

The influence of such collective group narratives can be seen in how participants’ memories of these famous winters reflect common national and media narratives. When referring to famous winters, respondents often echo media coverage by using superlatives and using the winters as yardsticks for comparison whenever the United Kingdom experiences another severe winter.⁶ Where an individual’s recollection of specific events reflects collective narratives, we can consider this a form of “distributed remembering” (Wertsch and Roediger 2008, p. 322). Mass media representations of past severe winters are just one cultural tool through which an individual’s memory of that event is shaped, and by considering the interaction between individuals, collective groups, and these mediating cultural tools we can better understand how our respondents construct their memories of severe winters. Studies exploring how media representation of climate change interacts with and

⁴The database consists of 68 memories extracted from the Ambleside Oral History collection, 10 submitted via Twitter, 6 via e-mail, 4 via the project website or other online forums, 52 via postcard, 6 via radio, and 10 via letter. Included in these submissions are 74 audio recordings, 41 photographs, 4 newspaper clippings, 2 extracts from books or diaries, and 1 video.

⁵Using the Central England Temperature series (1659–2014) and taking a seasonal average of the mean monthly temperatures (December–February), 1946/47 is the 13th coldest season and 1962/63 is the third coldest season (Met Office 2014).

⁶For example, during winter 2009/10 nearly every national newspaper compared conditions to 1947 or 1962/63. In a *Sunday Express* front page article with the headline “Freeze may kill 60,000” the author uses 1963 and its purported death toll of 89,000 as a benchmark for the government’s management of the ensuing winter conditions (Winter and Buchanan 2010).

influences perceptions of climate at the individual, community, and international governance scales have illustrated how nonlinear, dynamic, pervasive, and subconscious the influence of media framing can be in creating collective perceptions or memories (Boykoff 2008; Carvalho and Burgess 2005).

The interwoven nature of individual memories and press representations was highlighted by two commemorative booklets about the winter of 1962/63 that were brought to our community event by participants (*The Guardian* 1963; *Cumberland and Westmorland Herald* 1963). The *Cumberland and Westmorland Herald* booklet “The Worst Winter of the Century” contains an image of a car on the ice near Pooley Bridge, a memory recalled by two of our respondents (*Cumberland and Westmorland Herald* 1963, p. 13). When this event was discussed at our public workshop, many attendees also recalled it; most of these, however, had not witnessed it first hand, but rather had seen the photograph, which was printed widely across the regional and national press. Here we see clearly the direct connection between an image widely circulated in the media, individual’s memories, and the wider community’s commemoration of the event or collective memory. In one instance a participant submitted her own account of her bus being stranded in a snowstorm in 1955, along with a newspaper article reflecting on the event a few months later (*Penrith Observer* 1955). While it is clear some elements of her story, such as remembering that when the bus drivers “returned there were icicles on their headgear and clothing,” are formed completely from her own memory, it is hard to disentangle many of the other facts and details of her submission from the newspaper clipping, which she had fondly held on to during the intervening years (workshop, 1955, Stainmore).⁷

Apart from the well-documented extreme winters noted above, in line with the so-called recency effect (Harley 2003), events from the past decade tend to dominate the memories collected, despite the fact that only two winter periods, 2009/10 and late 2010, have been significantly severe since the turn of the millennium.⁸

It is also clear, however, that different generations have their own specific winter weather extremes, which have become inscribed into individual, familial, and

collective memory. For example, the generation who grew up in the years 1989–2007, a period relatively devoid of severe winters,⁹ commonly refer to winters in 1990/91, 1995/96, and 1996/97 in their submissions, despite these winters only ranking respectively as the 16th, 17th, and 38th coldest in the previous 100 years (*Met Office* 2014).

When considering memories connected to these relatively less severe winters, we must turn to media and meteorological records to establish whether the winters do not feature in national narratives because they were genuinely not very severe, or rather because they only affected a small region of the country. Despite its relatively small landmass, there is large regional variation in winter temperatures, snowfall, and snow cover across the United Kingdom (*Met Office* 1869–2014; *Met Office* 1953–1992).¹⁰ Even within the county of Cumbria, given its varied topography, coastal and upland divisions, and associated orthographic lift, there can be marked differences between the quantity and duration of snowfall and snow cover. The town of Alston in the North Pennine hills in the east of Cumbria (*Fig. 1*), at an elevation of 300 m, has a long history of extreme snowfalls (*Richardson* 1956). As well as being very severely affected in the winters of 1947 and 1962/63 (*Alston Moor Film* 2011), Alston has often also been severely disrupted during winters, which, even elsewhere in Cumbria, are not remembered as particularly severe (*Richardson* 1956). For example in 1974/75, remembered nationally as one of the mildest winters since records began, with a mean winter Central England Temperature of 6.43°C (*Met Office* 2014), Alston had 33 days with snow on the ground and encountered a 9-cm snowfall as late as 27 March (*Met Office* 1953–1992).

Comparison against regional and local records, where available, is important in helping us to understand the accuracy of specifically quantifiable claims made by participants. Despite the prevalence of nostalgic memories throughout the database (as discussed in *section 5*) nearly all of the memories connected to the less famous winters, which quantify in any form snow or cold, can be corroborated against local meteorological records or contemporary accounts. For example, a respondent’s recollection of her husband wading through a waist-high snowdrift in 1990 (Twitter, 1990, Nateby), an otherwise generally unremarkable year in relation to winter weather, could feasibly relate to one of three snowfalls

⁷ Throughout this paper references to the “Snow Scenes” project database are in the form (format of submission, year, place).

⁸ The winter of 2009/10 was the seventh coldest in the last 100 years in the United Kingdom (*Prior and Kendon* 2011a); December 2010 was the sixth coldest month in the last 100 years in the United Kingdom (*Prior and Kendon* 2011b, p. 618).

⁹ Five of the 10 warmest winters in the last 100 years in England and Wales have occurred since 1990 (*Prior and Kendon* 2011a, p. 9).

¹⁰ For more on the general distribution and causes of these regional winter variations see *Manley* (1969).

recorded just 25 miles away at Alston of 14 cm on 28 February, 16 cm on 1 March, or 15 cm on 8 December 1990 (Met Office 1953–1992). However, for these less “famous” winters, unlike memories connected to 1947 or 1962–63, or for more recent events from the past 10–15 years, participants often attach statements such as “can’t remember the year ... 1990ish” (postcard, ~1990, Honister Pass) or “I was thinking 1969–1970 time ... but I don’t have the dates to hand” (website, ~1969, Appleby). Over the whole collection we see significant variance in how specific participants are with dating their memory. Some detail the exact day, or week, whereas others give a decade or a bracket of a few years.

4. Anchoring memory in the specificities of place

Weather memories are necessarily situated, with place helping to “anchor” such memories (Hulme 2009). Nearly every written memory submitted to Snow Scenes combined descriptive language with precise details of places or locations. Alongside personal narratives, it was not unusual for people to provide often very specific, locational information. To continue with the example from Alston, it is clear that living in such an exposed location has instilled in many residents a strong connection with the surrounding landscape, microclimates, and prevalent weather systems. Such a connection to the landscape and weather was described by a resident of the nearby village of Nenthead, who builds dry stone walls on Alston Moor, who reflected that

When you see the weather rolling in, you can have a crisp, sunny summer day and then come about 3 or 4 o’clock there’s a weather front moving in, and you watch it coming over from the west, from Hartside, and ye see this as it just gets darker and darker, it gets colder, the wind picks up, the sun disappears and before you know it yer in fog (Alston Moor Film 2011).

In the following example, it was the uniqueness of the event that proves memorable, yet the recollections are still clearly linked to specific places:

I was living on the shore of Ullswater in the winter of 1962–3, at the Outward Bound centre. The A592 was closed south of the Brackenrigg Hotel and meat for the school was left there. When I skied along the road to fetch it I was unaware that I went over the top of a car. I knew on the return only because I took a different line and saw a gleam of paint in the drift. The snow was over the hedges. When I cleared the snow I saw there was a car in the drift, unoccupied. My ski tracks went over the top (e-mail, 1962/63, Ullswater).

The lakes, rivers, and estuaries of the area are central to many people’s memories of severe winters in the

region, with ice and the embodied practices associated with the frozen stretches of water featuring in many of the submissions, including memories of which parts of lakes froze, the last time they had frozen, and when they were safe to skate on. Of 1963, one Appleby resident noted how “On the way home from school together with another boy I walked across the iced over River Eden, below the town bridge, a feat not possible since” (postcard, 1962–63, Appleby). In a more recent memory, a respondent recalls how in December 2010 “ice formed on the river Kent estuary and blocks of ice floated on the incoming tide and were left piled on the shoreline by the ebbing tide” (postcard, 2010, Milnthorpe).

Many submissions are rich in specific, local geographical and topographic detail, with prevalent winds, valley and upland differences, and areas susceptible to snowdrifts all featuring across the materials collected. Reflecting on the winter of 1962/63 one correspondent, a local writer who has written several books on her life in Cumbria, noted how she

was living under Stainmore and snowed in for six weeks, fetching mail and provisions on skis. The Helm was always the main problem,¹¹ drifting the snow. Straight precipitation wouldn’t have been so bad but the wind caused ground blizzards of powder which penetrated cracks in the roof flags and lofts had to be cleared before it melted (e-mail, 1962/63, Ullswater).

In other descriptions, roads, hills, local landmarks, and especially dry stone walls often serve as comparative gauges for individual’s memories of snow depth and snow coverage. For example one of the oldest interviewees recorded for the AOHG reflected that

1939–40 was a very bad winter. That would be the winter that the road from Little Langdale was full right to the tops of the walls. Well you couldn’t see the top of the wall. The whole road was absolutely blocked full (AOHG, transcript DE).

Considering such localized, tacit knowledge alongside meteorological records that have a limited resolution at the regional scale highlights the importance of such situated knowledge not only for the residents of towns such as Alston, but also for our broader understanding of how place informs people’s perception of their local climate.

¹¹ The Helm Wind, England’s only named wind, is a local foehn wind and a product of the very particular landscape and weather conditions found in the area around Cross Fell (Veale and Endfield 2014).

5. Memory, nostalgia, and personal experience of extreme winter weather

People tend to draw on past personal experience or received wisdom in order to make sense of the current and possible effects of the weather in place. Current situations are often related to memories of previous analogous events or to others' experiences, over generations (Marx et al. 2007, p. 48). Such a "strong temporal awareness" in weather experiences is thought to be central to understanding of climate change (Strauss and Orlove 2003, p. 3). While bad or perceived extreme weather is strongly linked to memory (Forgas et al. 2009), it does not necessarily equate with *negative* memory. In discussing 1962/63, for example, one respondent recalled that while "it was a savage winter . . . awful time for those working out in it," it was at the same time a "wonderland for children." Moreover, snow events still hold appeal for this respondent who notes that "it brings on my second childhood and [I] still go sledging in it, in spite of my age!" (e-mail, 1963, Melmerby).

In fact, just under one-third of the memories in our database refer to happy childhood memories, or nostalgic memories of when parents had young children themselves, recalling with fondness the best location for sledging, protracted or disrupted journeys to school, and playing on frozen lakes and tarns. One pensioner, for example, highlights that, notwithstanding the hardships and disruption associated with the winter of 1947, his memories of the event were overwhelmingly happy:

The winter of 1947. I had to walk the 3 miles to school through banks of snow. My journey [sic] included crossing Windermere on the ferry which maintained a clear passage between one foot of thickness of ice but the best bit was the sledge run in the school playground. Wonderful (postcard, 1947, Windermere).

More recent winters associated with snowfall seem also to be remembered positively. One contributor, for example, noted on a postcard that

[a] field adjacent to our house was an incline very good for tobogganing down from a small crest. Memories of children using it on moonlight [sic] night up and down, up and down. Went out after midnight. Happy children, breathtaking landscape. Magical night (postcard, 1988, Dent).

Similarly, a younger respondent recalled how

we walked to primary school in Ulverston and the snow had been piled up in drifts taller than our heads! Maybe it's because we were tiny but there was a lot of snow that year. The headmaster joined us in a snowball fight! (postcard, 1993/94, Ulverston).

However, not all memories were so light hearted. One correspondent who at the time of the 1962/63 winter had two young children to look after, no central heating, and frozen water pipes for six weeks noted that

The six weeks seemed never ending, however desperate it was, as a young family we managed to cope, would today's society manage? ... We literally lived from day to day, what option did we have? None - However like many others we came through the freezing weather of 1963 - It was indeed difficult having especially two young boys (letter, 1962/63, Newton Reigny).

It is interesting that earlier narratives collected by the AOHG also tend to highlight more traumatic experiences of extreme winters in Cumbria. Some of the oldest oral histories from the AOHG recall coping with what today would be viewed as extreme hardship and deprivation, such as walking to school in the snow with no shoes (AOHG, transcript BE), being buried in the snow for 12 hours (AOHG, transcript DC), and losing over 50% of the farm's sheep in the cold (AOHG, transcript HV). The most extreme hardships recounted have today, for many, been largely eliminated through technological, social, and economic improvements such as central heating, the mechanization of farming practices, and increased social security measures. Rather than reflecting changes in climate, the bias toward negative memories within the older AOHG collection may in fact highlight the changing relationship that communities in the area have had with their environment throughout the twentieth century. This changing relationship highlights an important temporal dimension to how we understand climate, illustrating the limitations of literal comparisons that do not historically contextualize experiences. An understanding that our experience of both weather and climate is relative and mediated through such social constructions is important for societal resilience and our ability to adapt to climatic changes in the future.

6. Weather and life's milestones

The most detailed weather memories submitted are those connected to important milestones in participant's lives—moving home, the birth or death of a relative, and the start of a new school or university. When recalling periods of extreme cold or snow, people use such significant life events as a hook to connect conditions with important milestones in their life, such as this participant who wrote the following:

I think it was the winter of 1997. We had just moved to Windermere. Myself and three daughters. Youngest was 4 yrs. The snow at the back door had drifted and was deeper

than she was tall. We had no water, for a day or two. At the back of the garden was a beck. My next door neighbour, in his 90s was Mr Snow! - seriously. I had to climb down into the beck and fill buckets with water to put down the toilets for us both. We sat by fire light while the girls performed plays that they had made up. They are all in their 20s now and Mr Snow has died, but we all have fond memories of that winter (postcard, 1997, Windermere).

Another respondent recalls with some degree of affection actually moving house in the heavy snow of 2010, describing

Removal men with red noses and salt on their boots trailing up four floors of cream carpets leaving pink tracks and precious furniture getting frosting of snowflakes. The van being pulled over a country lane ditch by a passing farmer in a land rover. Celebratory hot chocolate in new home - eventually! (postcard, 2010, Long Rigg).

Among those memories received by e-mail was one that made reference to a series of bad winters, comparing several during 35 years of residence in Cumbria. Yet the respondent recalled a relatively recent snowy winter, that of 1998, as being “one of the worst winters” in 35 years of living in the region, not least because, as she explains,

I was pregnant with our second daughter and the snow was so deep in the centre of Hawkshead that it came up to my waist - even in the middle of the village, so I had to stay put, the village was cut off for about a week, and things only got serious when the locals realised that the beer lorries couldn't get in to replenish stocks at the pubs! My Daughter...was born on April 9th and despite the snow having gone by then, it was still bitterly cold and snowed again as we brought her home from hospital (e-mail, 1998, Hawkshead).

While nearly all of these memories are linked to key individual or familial milestones, many relate to winters that were relatively less severe, especially in the national context. These lesser known, often only regionally severe winters seem to be only dated by participants when they are connected to an important personal milestone. The life event helps the participant to both locate and date their memory and serves to clarify memories of the unusual weather; in this case, winter weather helps to “anchor” the personal memory (Hulme 2009, p. 12).

Of the many memories related to childhood, lots of submissions include statements such as, “I was just 4 in the winter” (postcard, 1947, Heversham), or “these are memories told to me by my parents” (e-mail, 1947, Long Marton), which show how recollections of past severe winters are informed by more than direct personal experience. Some of these memories were vicarious and represented received wisdom. Yet in

these cases too, memories passed down through the family often use specific places and/or events to locate and compare winters. This is especially the case with some of the longer submissions we received, where several participants provide detailed descriptions of snow events using specific landmarks and topographic features, such as dry stone walls, barns, and houses, as intergenerational temporal yardsticks to recall snow depth and relative severity. One respondent, for example, commented “I was thinking of 1969–1970 time. I understand that the bungalow was completely covered in snow some years” (website, 1969–70, Appleby).

Memories and stories submitted were not just intergenerational within one family. As introduced above, several participants spoke of a car crossing the ice on a frozen Ullswater, at Pooley Bridge in 1963. Many of the attendees at our Appleby workshop were familiar with the following story, recalled by one of the first participants in the project:

There's a little local story about a Latin teacher at Appleby Grammar School: In the 1947 winter he walked into Appleby from his village 3 miles away, on the fellside - arriving covered in snow which prompted the boys to say, “Hello Hannibal, where are your elephants?!” And he was nicknamed Hannibal from then on! (website, 1947, Appleby).¹²

Linking back to the significant role played by place in memory making, landscape features, specifically Lake Windermere, provide a focus for intergenerational narratives of severe winters. For example, several participants mentioned the Great Winter of 1895, held up as a yardstick against which subsequent winters are remembered. Even those who had no family story or memory of the winter were aware of it, especially through the iconic photographs of Lake Windermere, when thousands flocked from nearby urban centers on the newly completed train line to simply walk or skate on the ice.¹³ One interviewee from the AOHG, born in 1893, suggests that there was a surplus of skates in circulation in the first few decades of the twentieth century because of the high number of extremely severe winters in the last decades of the nineteenth century.¹⁴ It seems plausible that the popularization of ice skating

¹² An attendee at our workshop had been a pupil at Appleby Grammar in the period and confirmed the story, as well as identifying the teacher who became known by the students as “Hannibal.”

¹³ One newspaper report estimates that on one single day, 2000 people flocked to the ice, with special trains being put on from Lancaster, Manchester, and Liverpool (*The Kendal and County News and Lakes Courier* 1895).

¹⁴ The winters of 1878/79, 1890/91, and 1894/95 all feature in the top 25 coldest winters of the Central England Temperature series, 1659–2014 (*Met Office* 2014).

and the notion that the lakes “always used to freeze” could have both emerged during this period of repeatedly extreme winters.

The commemoration of such intergenerational memories at the family and community level again highlights the relationship between individual and collective memory and the cultural media, such as newspapers, which influence, shape, and facilitate their creation.

7. Conclusions

Recent research has established a need for the public to begin “talking about climate change and integrating it into their everyday lives” (Lejano et al. 2013, p. 62). Consideration of the spatial and temporal contingency of climate change—and the localized or particularized experience of its manifestations through weather—could help us “to be better placed to prepare for different configurations of this relationship in the future” (Livingstone 2012, p. 93). Extreme or unusual weather events can have the greatest and most immediate impact of all climatic changes (Berz 1997). Understanding at the local level both how communities, and individuals within those communities, have historically been affected by and have coped with such events, and also how the same communities today remember and understand such events in the past, may be crucial in building community resilience and informing current planning decisions and policy. Our focus in this paper, therefore, has been to explore the relationship between weather, memory, and place using the example of extreme winter weather and in particular extreme or unusual snowfall in Cumbria.

The memories, images, clippings, diary entries, and audio recordings we have gathered present a rich and detailed history of severe winters, especially those that included unusually heavy snowfall, in the case-study region. Predominantly, although not exclusively, autobiographical in nature, the material in the “Snow Scenes” database charts winters that tested the resilience of individuals, families, and communities, that caused widespread disruption, and that reveal the many ways that people responded to challenging conditions.

In terms of relational context, the material also sheds light on a series of key influences on extreme weather memory. First, there is a tendency to remember with more clarity the local manifestations and implications of the so-called famous winters of 1947 and 1962/63, which caused nationwide disruption and which received plenty of documentary coverage. This is perhaps not so surprising. As Eden (2005, p. 6) noted, there is a degree of amnesia, a collective forgetting for “all but the most extreme, the most outrageous, in respect of both events and season.” Our materials, however, afford insight into

how individuals remember these very well-documented, nationwide periods of extreme weather at the local level, and also how collectively these memories form a community narrative that is distinctive from, yet situated within, a national context.

Second, we have demonstrated the importance of the specificity of place in individuals’ production, reception, and circulation of weather knowledge and how they understand their environment. The materials collected are rich not just in terms of highlighting the significant role of place specificity, but also in terms of the role that these places play in the descriptions given by our participants, with roads serving to highlight which way the wind was blowing, downward slopes used to give agency to where the biggest snowdrifts formed, local landmarks used as measuring gauges of snow depth, and perhaps most importantly specific local memories, stories, and folklore used as a mechanism to normalize the extremes and help people through these winter periods.

Third, while there are clear examples where extreme weather and the hardships and disruptions it caused are linked to fairly traumatic memories, it is very clear that the majority of our respondents recall weather events, and particularly prolonged snowy winters, with an element of nostalgia. Across the database nostalgia is predominantly, though not exclusively, linked to childhood memory and childhood places, with people often remembering the way in which snow events in particular disrupted school life. Fourth, important life events represent a particularly significant factor that helps to reinforce and anchor individual memories of severe winters. Having a new baby and house moves, for example, appear to serve a meta-cognitive anchoring role in weather memory. Yet these events have the potential to render those events more severe than they may have been according to official registers. As Forgas et al. (2009) argue “remembering the details of everyday scenes is a fragile process that is often influenced by what people pay attention to, as well as contamination by subsequent, incorrect information.” Clearly, there can be a tension between accuracy and the tendency toward nostalgia in many of the submitted memories. Yet, combining these memories with the limited meteorological records, newspapers, and other archival records reveals that many of our respondents’ detailed understandings of the most severe winters in fact concur with contemporary records and accounts.

Finally, it is important to think about the broader potential implications of this work. While it was not the purpose of the study to explore participants’ current understandings and attitudes related to climate change, it has been argued that personalized and localized weather narratives could have a significant role to play in popular understanding and articulation of debates about weather

and climate (Lejano et al. 2013). Indeed, vicarious or actual experiences are thought to play a more powerful role in influencing an individual's decision making than descriptive or statistical approaches [Nisbett and Ross (1980), cited in Marx et al. (2007, p. 49)]. Therefore such "vivid experiences" of weather events may play an important role in shaping perceptions, reception and response to future weather events and climatic change. Scruggs and Benegal (2012, p. 507), for example, have argued that recent, locally experienced weather events can have an influence on public opinion on complex global climate change debates. People make use of local weather events to "substitute for an unfamiliar, complex attribute (climate change) when forming an opinion," a theme that is explored elsewhere (Endfield and Naylor 2015). Equally, by exploring the connection between local meanings and memories and climate change research, it may be possible to better understand "what may prompt behavioural changes" in the context of a changing climate (Gorman-Murray 2010, p. 76). Communication of climate change risk is also thought to be more effective and appropriately targeted if it takes into account these relevant personal and vicarious experiences in the form of narrative, memories, and anecdotes (Marx et al. 2007, p. 56). This perspective is one echoed in a broader body of scholarship focusing on the value of tapping into local indigenous knowledge systems (see, e.g., Green and Raygorodetsky 2010). Thus, there is an opportunity to develop this research further to explore how local interpretations of climate change might be mediated or understood through local cultural meanings and influences.¹⁵ Equally, it is clear that the local picture that emerges from this research affords an understanding of an individual's, and in some cases a community's, relationship to climate.

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¹⁵This is an area of enquiry that is being pursued as part of a new project, funded through the Arts and Humanities Research Council, investigating weather extremes in the United Kingdom, past, present, and future. (See <http://www.nottingham.ac.uk/research/groups/weather-extremes/index.aspx>.)

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