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London's Weather And The Everyday: Two Centuries Of Newspaper Reports

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Abstract

This study surveys 200 years of London's weather and its public reporting in newspapers to reveal some of the recurring modes of reporting and linguistic styles that are used to describe and make sense of the human experience of weather. These modes include: the cultural anxieties prompted by 'unusual weather'; the visual dramas of 'great storms'; the weather as culpable; and bench-marking extreme weather. Even as the broader processes and patterns of our climate are changing, at the level of the everyday the human and cultural experience of weather remains remarkably familiar.

Introduction

The idea of anthropogenic climate change has changed the way in which the interactions between climate and society are analysed. The dominant *analytical paradigm* for climate change studies first establishes some baseline climate against which current and future change can be determined and then progresses to quantify the 'impacts', relative to this baseline, that different increments of warming might have in the future on societies and ecosystems. These 'impacts' are usually expressed in terms of monetary loss, social change or ecological disruption (e.g. Arnell et al., 2018). The problem of global climate change is then *framed politically* as one of determining what level of future change is 'dangerous' and then negotiating burden-sharing agreements and designing policy interventions which might avoid breaching this level of change, thus re-securing sustainable relationships between global climate and human living (e.g. Gupta, 2014).

And yet the relationship between day-to-day weather and the everyday routines of cultural life—a relationship which the *idea* of climate seeks to stabilize (Hulme, 2016a)--does not easily lend itself to these types of calculation. The experience of weather in everyday life is continually interpreted and made sense of through familiar meaning-making routines. Weather not only connects people to places and landscapes, but it occupies a prominent place in human memory and imagination (Boia, 2005; Hall & Endfield, 2014; Harris, 2015), prompting a new category of meteorology called 'cultural climatology' (Thornes & McGregor, 2003). Cultural meteorologists such as Jankovic (2000), Golinski (2007), Rudiak-Gould (2013) and Meyer (2014) have drawn attention to these imaginative ways in which people experience, report and make sense of their weather.

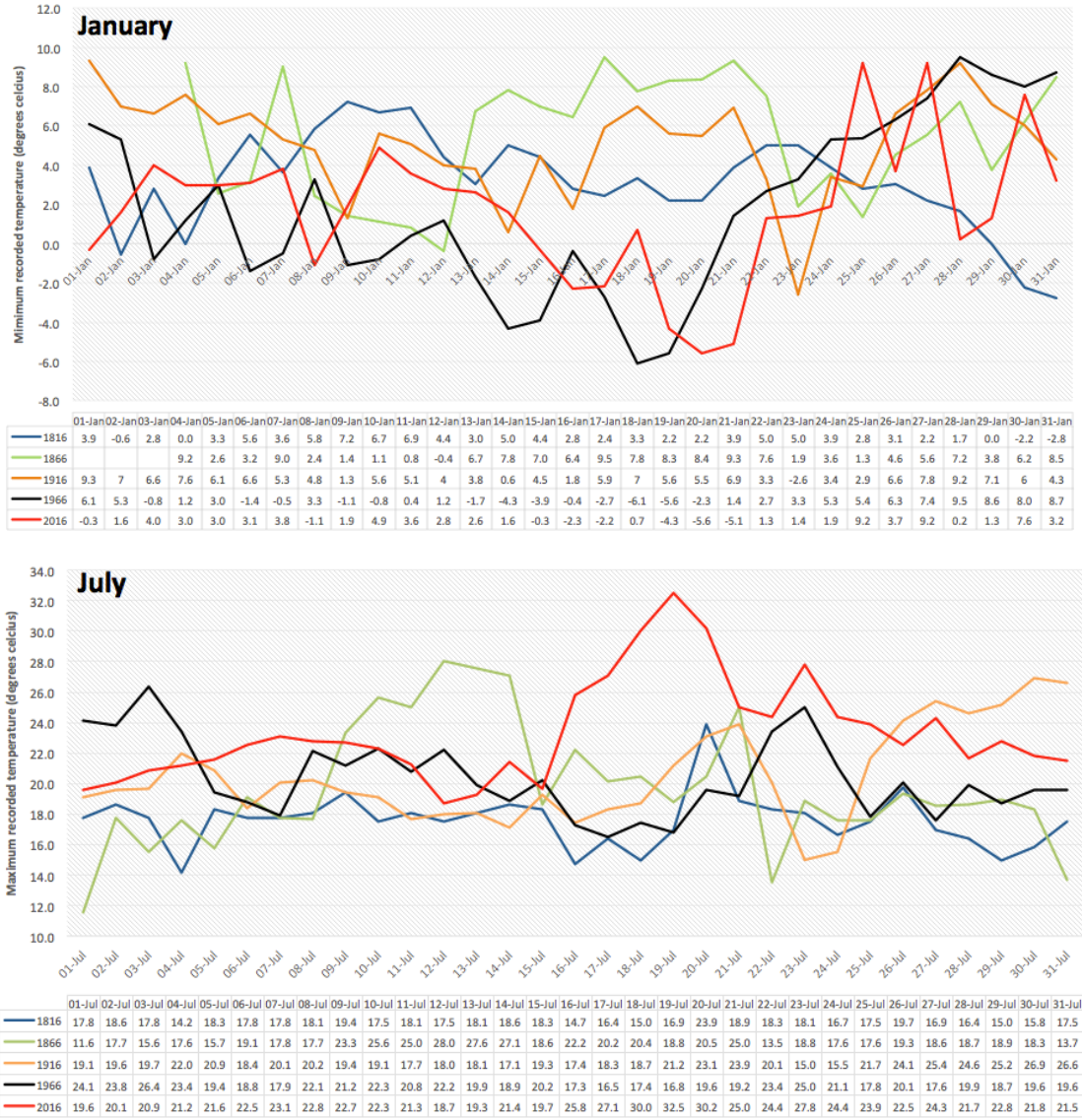
This exploratory study of London's weather illustrates some of these meaning-making routines by surveying 200 years of meteorological history and revealing some of the recurring ways in which London weather is experienced and reported in public print media. How did weather impact the everyday lives of Londoners? How were these impacts reported within public media? Even as London's climate warmed through this period, how much continuity was there in the public mediation of weather and the everyday?

Our period starts in 1816—'the year without a summer' (Veale & Endfield, 2016)—and

we sample at 50 year intervals through the next two centuries, yielding five sample years of 1816, 1866, 1916, 1966, 2016. From a historical climatological perspective, the study reveals the value of looking back at past climates through studying public accounts of 'weather in the news'. Across these two centuries we demonstrate the recurring tropes and linguistic styles through which the weather's impact on everyday London life is reported. These include weather's material impacts on health, infrastructure and livelihoods and weather's emotional impact in triggering sentiments of fear, bewilderment, drama, fortune and misfortune. Even as climates change, the interactions between weather and material and imaginative human worlds display notable continuity across generations (Hulme, 2015).

Data

There is no single weather station that represents Greater London's meteorology and which also has continuous and homogenous recordings over 200 years. For the purposes of this study we therefore extracted meteorological data--daily maximum/minimum temperatures and precipitation--from the Kew Observatory record for the years 1866, 1916, 1966 and 2016. The Kew record extends back only to 1843 (Jacobs, 1969) and so for the year 1816 we use the personal weather diary of Mr A Edwin (Met Office Archive, Exeter 271/2/3/247). Edwin took daily maximum and minimum temperatures from two thermometer screens located in central London on Cecil Street, Covent Garden (London WC2N), and in St John's Square, Clerkenwall (EC1V). These data thereafter are referred to as 'Edwin'. Although these records are not strictly comparable (Kew is in the Borough of Richmond, TW9, about 12km west of central London), the data for Kew and 'Edwin' offer us a first-order approximation of 'Greater London weather' across these 200 years. Even though England's climate has warmed on average by about 1°C over these two centuries (Jones & Lister, 2009), for any given day of the year local temperatures can vary across these two centuries by 15°C or more (see Figure 1).



	01-Jan	02-Jan	03-Jan	04-Jan	05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan
1816	3.9	-0.6	2.8	0.0	3.3	5.6	3.6	5.8	7.2	6.7	6.9	4.4	3.0	5.0	4.4	2.8	2.4	3.3	2.2	2.2	3.9	5.0	5.0	3.9	2.8	3.1	2.2	1.7	0.0	-2.2	-2.8
1866				9.2	2.6	3.2	9.0	2.4	1.4	1.1	0.8	-0.4	6.7	7.8	7.0	6.4	9.5	7.8	8.3	8.4	9.3	7.6	1.9	3.6	1.3	4.6	5.6	7.2	3.8	6.2	8.5
1916	9.3	7	6.6	7.6	6.1	6.6	5.3	4.8	1.3	5.6	5.1	4	3.8	0.6	4.5	1.8	5.9	7	5.6	5.5	6.9	3.3	-2.6	3.4	2.9	6.6	7.8	9.2	7.1	6	4.3
1966	6.1	5.3	-0.8	1.2	3.0	-1.4	-0.5	3.3	-1.1	-0.8	0.4	1.2	-1.7	-4.3	-3.9	-0.4	-2.7	-6.1	-5.6	-2.3	1.4	2.7	3.3	5.3	5.4	6.3	7.4	9.5	8.6	8.0	8.7
2016	-0.3	1.6	4.0	3.0	3.0	3.1	3.8	-1.1	1.9	4.9	3.6	2.8	2.6	1.6	-0.3	-2.3	-2.2	0.7	-4.3	-5.6	-5.1	1.3	1.4	1.9	9.2	3.7	9.2	0.2	1.3	7.6	3.2

	01-Jul	02-Jul	03-Jul	04-Jul	05-Jul	06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul
1816	17.8	18.6	17.8	14.2	18.3	17.8	17.8	18.1	19.4	17.5	18.1	17.5	18.1	18.6	18.3	14.7	16.4	15.0	16.9	23.9	18.9	18.3	18.1	16.7	17.5	19.7	16.9	16.4	15.0	15.8	17.5
1866	11.6	17.7	15.6	17.6	15.7	19.1	17.8	17.7	23.3	25.6	25.0	28.0	27.6	27.1	18.6	22.2	20.2	20.4	18.8	20.5	25.0	13.5	18.8	17.6	17.6	19.3	18.6	18.7	18.9	18.3	13.7
1916	19.1	19.6	19.7	22.0	20.9	18.4	20.1	20.2	19.4	19.1	17.7	18.0	18.1	17.1	19.3	17.4	18.3	18.7	21.2	23.1	23.9	20.1	15.0	15.5	21.7	24.1	25.4	24.6	25.2	26.9	26.6
1966	24.1	23.8	26.4	23.4	19.4	18.8	17.9	22.1	21.2	22.3	20.8	22.2	19.9	18.9	20.2	17.3	16.5	17.4	16.8	19.6	19.2	23.4	25.0	21.1	17.8	20.1	17.6	19.9	18.7	19.6	19.6
2016	19.6	20.1	20.9	21.2	21.6	22.5	23.1	22.8	22.7	22.3	21.3	18.7	19.3	21.4	19.7	25.8	27.1	30.0	32.5	30.2	25.0	24.4	27.8	24.4	23.9	22.5	24.3	21.7	22.8	21.8	21.5

Figure 1: January (top; daily minima) and July (bottom; daily maxima) temperatures for our five sample years. 1816 is for 'Edwin'; the other years from Kew. Note: three missing January days from 1866.

Historical newspaper reports for each of our five sample years were accessed via *The Times* Digital Archive (http://www.gale.com/the-times-digital-archive), which offers continuous coverage of *The Times* back to 1785, and via the British Library Newspaper Archive, which provides access to an assortment of local historical newspapers and journals for the London area (http://www.britishnewspaperarchive.co.uk), for example *The Morning Chronicle*, *The Morning Post* and *The London Evening Standard*. Searching the British Newspaper Archive using the search term 'London weather' returned the following numbers of articles for our sample years: 3,085 (1816), 34,006 (1866), 24,927 (1916) and 3,617 (1966). The number of returns greatly exceeded the number that

could be analysed and so a random 10% of returns (1% for the years 1866 and 1916 owing to their much greater frequency) were saved for further work, resulting in between 250 and 350 articles being saved for each sampled year. Since this work was completed during 2016, the Archive was incomplete for this year and so general Google searches were used to return on-line newspaper articles about London weather. A total of 150 articles were identified and extracted for 2016. All saved returns (about 1,250 articles in total) were rapidly scanned for general interest and relevance for weather impacts in London and from this scanning approximately 50 of the most relevant articles for each year were selected for more detailed reading, note-taking and subsequent analysis. For the purposes of this article we summarise the public reporting of weather under the following four headings: unusual weather, 'Great' storms, weather's culpability and bench-marking extreme weather.

3.1 Unusual weather

London's weather is repeatedly reported as being unusual, whether for the time of year or else with respect to the past. A familiar manner of reporting is that weather occurs out of time or out of place. It is reported as being 'unusual', 'abnormal', 'unseasonal', 'early' or 'late'; weather does not perform as it should. Thus on 20 July 1816 *The Times* reported "unseasonable weather" not only in London, but also "in Sweden and in many other parts [where] it has been equally unfavourable". 1816 was 'the year without a summer' across Europe (Veale & Endfield, 2016) and the abnormality of the weather was signalled using the traditional benchmark of 'living human memory' (cf. Hulme, 2016b). "Such an inclement summer is scarcely remembered by the oldest inhabitants of London or its environs", this same report in *The Times* continues.

We see the same frustration with weather's performance in 1866: "London went to sleep on Wednesday night in October and woke up in January" (*The Times*, 15 January 1866). The snow-storm that struck in mid-January is reported as making up for the weather's "long hesitation" in bringing winter to the capital. This dissatisfaction with weather not performing 'properly' is also found in more recent reporting. The *London Evening Standard* headline for 27 April 2016 reads: "London weather: snow falls in capital for second time in two days … and it's April". It is an affront to Londoners that the weather should deliver snow so far outside its due season.

Unseasonal weather is not just a curiosity or an affront; it is frequently reported in terms of the anxieties or disruptions it causes to everyday life. The weather in London in January 1916 was particularly mild, with Kew recording a maximum recorded temperature of 13.4°C on New Year's Day (Table 1). This mild weather generated different emotions depending on occupation or concern. "Sheltered gardens in the London area are very forward and causing anxiety to amateur gardeners" reported *The Times* on 1 January 1916, yet the same report observes the benefits of a mild January for soldiers home on leave from the Western Front who were "making the most of the brightness".

Table 1: Meteorological recordings for 1 January across our five sample years (data for 1866 are missing from Kew).

	1816	**1866**	**1916**	**1966**	**2016**
Tmin (C)	3.9		9.3	6.1	-0.3
Tmax (C)	5.0		13.4	9.6	9.9
Tmean (C)	4.3		11.4	7.9	4.8

Frustration with the weather is revealed as being due not just to its being 'out of season', but also to its seemingly capricious variability from year-to-year. Later in 1916, we see *The Times* reporter contrast the weather from 12 months earlier. "A year ago we were talking of 'Flaming June' … but 'Dripping June' may well … serve the purpose of today… everyone shivered, and wise women in suburban houses had winter fires burning when their men came home in the evening" (*The Times*, 14 June 1916). And the following day the suspicion of malfunctioning weather grew further: "… nobody dared to prophesy a return to summer weather. Experts have grown suspicious even of barometers" (*The Times*, 15 June 1916). This sense of disorientation arises because the weather's behaviour seems to challenge the order and stability to everyday life that the notion of 'climate' seeks to bring. 'Snow in April', 'winter fires burning in June', 'gardens blooming in January': the weather world is not meant to be like this and everyday practices and familiar routines relying on dependable weather become disjointed. The anxieties triggered by 'weather behaving badly' (Boia, 2005) are nothing new.

3.2 'Great' storms

Encounters with storms are particularly memorable forms of weather due to their combination of high winds, heavy rainfall, thunder and lightning, which in combination often pose threats to personal safety and structural integrity. 'Great' is an adjective regularly assigned to storms that hit the capital, not just those that gain lasting cultural salience such as Daniel Defoe's storm of November 1703 or the infamous storm of October 1987 which devastated southern England. Public reporting of London's storms embraces both the personal and the structural. Thus the "violent and fearful gale" of 11 February 1866 had widespread effects on the capital, vividly captured in the reporting by *The Times* the following day. A man on Clapham Road avoided injury from falling masonry by the "tip of his umbrella" which deflected the blow, while bookbinder Mr Ranvand lost his family home on Alfred Street in Bedford Square—"completely destroyed"--but fortunately not his wife and children whom he excavated from the rubble. Among many other incidents, engine-drivers on the South-Western and South-Eastern lines could not get to work.

Such storms routinely cause 'havoc' in the city. The idea of havoc signifies destruction, devastation and great damage. Havoc can occur across a variety of spatial and temporal scales, whether an individual, a borough or the entire metropolis. Thus the storm of 27 March 1916 is reported thus: "Havoc in London: rarely has London experienced a more depressing day than yesterday … throughout the day the wind blew with hurricane force … mighty trees were uprooted…the gale made walking almost impossible" [*The Times*, 29 March 1916]. Another form of benchmarking is also evident in relation to the reporting of this "violent gale": "A traveller who has experienced the weather conditions of almost every other part of the world stated last night that the gale had been almost as bad as anything he had ever experienced… Everyone's idea was to go home as quickly as possible". Comparing London's weather with that experienced in other parts of the world is a recurring style of weather reporting.

Cities such as London are often envisioned as technologically more advanced today than in previous centuries and therefore more resilient to weather extremes. Weather building codes for example were only introduced in the UK in the late 19th century. But were cities in the past less capable than today's of dealing with weather-related hazards? Exactly a century after the above-mentioned March 1916 gale hit London, 'havoc' is still wrought by the weather as Storm Katie "wreaks havoc across the capital" (*London Evening Standard*, 28 March 2016). The reported impacts of a 'great storm' again embrace both the personal and the structural. Two storms, one hundred years

apart, yet similar--indeed almost indistinguishable--weather marks are left on the city (Figure 2). Or take the example of localised flooding. The article "News in Brief" from *The Times* on 7 June 1916 reported highly localised flooding of "several inches" in south London after "a heavy hailstorm passed over Brixton", whereas at nearby Kennington-Gate "summer weather prevailed". Almost exactly 100 years later, local districts of south London remain vulnerable to flood risk induced by heavy rainfall events. "London flooding: Three cars were almost completely submerged under flood water near Wallington station with one person having to be rescued by firefighters" (7 June 2016, *London Evening Standard*)

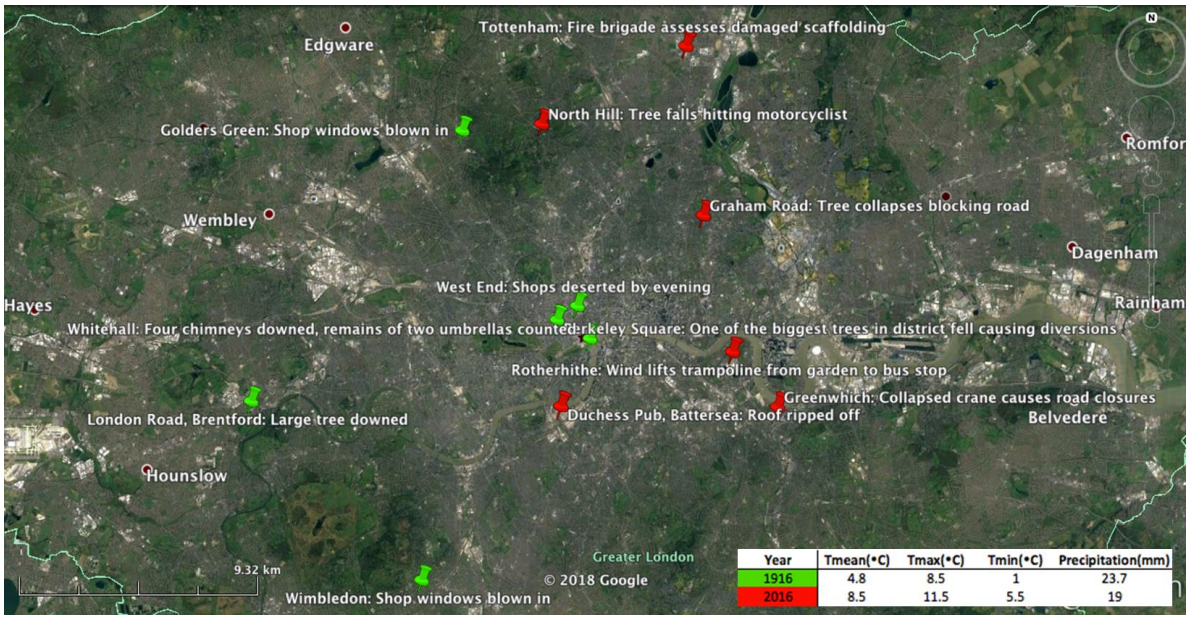


Figure 2: Public reporting of some impacts of severe storms across London caused by the 'Great Storm' of 28 March 1916 and by Storm 'Katie' of 28 March 2016. Meteorological data are from Kew Observatory.

3.3 The culpability of weather

Blaming the weather for all manner of ills is a recurrent feature of human discourse (Jankovic, 2006) and we frequently see this form of weather reporting deployed in our 200 year survey. We highlight three areas of blame: for personal harm, for public violence and for disruption to public services.

The first example reveals how weather is implicated in human tragedy—weather as fate—in the death of shoekeeper Mrs Goddard's son. On 4 January 1816, Mrs Goddard's house in London burned down in a large blaze and her son lost his life: "The hapless

youth who has thus fallen an early sacrifice was to depart for France on the following day, having previously been to Dover, with that intention, but had returned to his home in the consequence of the adverse state of the wind and weather" *(The Morning Chronicle).* Whilst it was the fire that took the boy's life, it was the "adverse" weather at Dover that drove this "hapless youth" back to London and his death.

Another case later that year brings more formal judicial charges against the weather. This case concerned the death of Mary Woodbine, the "wife of a blind fiddler", in the St Giles parish of central London in November 1816. Mary and her blind husband were the subject of an attempted mugging on Church Lane, but the Coroner's inquest concluded that Mrs Woodbine "Died by a fit, and the severity of the weather" (*The Times*, 26 November 1816). How could the weather be held culpable for Mrs Woodbine death? Edwin's diary for central London states the daytime temperature this day was 4°C, fairly unexceptional for November, so maybe she slipped on cobbles slicked with rain or perhaps the night-time cold did it for her heart. Either way, the watchman accused of the couple's mugging was acquitted and the weather found guilty. As with recent heatwaves in the capital, weather is frequently reported as the cause of death, especially amongst the elderly. We see from August 1916 the deadly effects of heat. The judicial outcome of the death of Mrs Alice Crouch of Hackney was, "'Cardiac debility due to the heat of the weather' was the verdict" (*The Times*, 3 August 1916). The 2 August was certainly hot--26.6°C at Kew—although not excessively so, but the summer heat was deemed a credible cause of heart failure and subsequent death.

Heat and humidity have long been claimed as causes of death, but also for outbreaks of criminal violence (Cohn, 1990). Recent manifestations of this neo-climate determinism have been the claims that climate warming in the future will increase violence and violent deaths around the world (e.g. Hsiang et al., 2009). The summer of 2016 saw several spells of hot weather in London, notably 19 July when temperatures at Kew peaked at 32.5°C. The heat provoked widespread commentary on social media, notably on Twitter with #toohottosleep. Violence erupted that evening in Hyde Park when 4,000 youths clashed with police officers resulting in a fatal stabbing. With many other acts of public disorder around the capital, political leaders felt compelled to comment and identify reasons for such social disorder. In his comments on the violence the Mayor of London, Sadiq Khan, repeated the soft deterministic claim that "Violence across London was fuelled by hot weather" (*London Evening Standard*, 20 July 2016). Yet one might ask why, on hotter days that summer in London--33°C at Kew on 24

August and 33.6°C on 13 September, violence did not erupt. And why, if hot weather fuels violence, there are no systematic seasonal effects in the Metropolitan Police's violent crime data.

Weather is also frequently blamed for interruptions to public services. The earlier-mentioned 'great storm' of 28 March 1916 blew down elm trees in Brentford breaking the telegraph. "Stoppage in the telegraph and telephone services prevailed all yesterday. No such interruption of communication has occurred for 30 years" (*The Times*, 29 March 1916). Weather here tarnishes an unblemished record of delivering a public service. Weather disruption to public communications is also reported in this example from a century earlier. In 1816 Europe was almost as interesting a topic of political and public discourse as in contemporary debates surrounding Brexit. With concerns over Napoleon's invasion plans only recently quelled the previous June, following the Battle of Waterloo, London's reading public were much inclined to keep up to date with what was happening on the continent. In early January *The Morning Chronicle* wondered aloud about the weather's responsibility for 'the missing French papers': "Another day has passed without the arrival of any French papers, although there appeared nothing in the state of the weather to prevent the passage of the packets. Four days journals are now due" (10 January 1816). Three days later, the frustration mounts and now the weather *is* implicated: "Another day has passed without any arrival of French papers. Three days of journals are now due. The state of the weather has probably caused the interruption" (*The Morning Chronicle*, 13 January 1816).

Two centuries later the weather was caught-up in Britain's relationship with Europe in a different way, but again through shouldering blame for disrupted public services. "South-east England faces further thunderstorms overnight after downpours disrupted voting in the EU referendum" (*The Guardian* 23 June 2016). The problem was torrential thunderstorms on the night of 22/23 June, with Kew recording 34.6mm of rain on 22 June and St. James Park in central London 44.4mm. Further rainfall on the 23 June, the day of the Brexit Referendum, eventually forced the closure of Waterloo station before the polling stations had closed. "Thousands of commuters were stuck at Waterloo station as trains were either delayed or cancelled because of flooding, with several people tweeting that they would miss the 10pm deadline to cast their ballot" (*The Guardian*). The weather was not to blame for the outcome of the Brexit vote, but perhaps *The Guardian* was looking out for every possible extenuating circumstance for excusing a Referendum outcome that was contrary to their political preference.

3.4 Bench-marking extreme weather against the past

Whether wet or dry, warm or cold, storm or snow, extreme weather newly experienced is routinely publicly interpreted in terms of records from the past. This desire for bench-marking serves a dual function. On the one hand it seeks to highlight the drama of the present and the exceptional weather that 'we' (the readers) have just lived through--'the warmest on record/in living memory'. On the other hand, indirectly, it offers contextual reassurance that the weather has been *more* extreme in the past--'the coldest for ten years'. Paradoxically, this trope of reporting dramatises present weather through exceptionalist claims, yet at the same time quells public anxieties. 'London's weather may at times be exceptional, but only within certain boundaries'.

Luke Howard, urban climatologist, author of the first book on London's climate and originator of formal cloud nomenclature, used the past to put the present weather into context. For example, when reporting the wet year of 1816 in London he observed "The greatest depth of rain in twenty-three years fell in 1816. Next to this, for wetness, appears the year 1797" (Howard, 1818). Comparison with the past is necessary if the present is to be interpreted appropriately. The same form of comparative reporting is evident in *The Times* article from 1 February 1966: "*Warmest February Day For Five Years*" (see Table 2), this day being the warmest recorded February day on the roof of the London Weather Centre since 14 February 1961.

Table 2: Temperatures on 1 February across our five sample years. 1816 for 'Edwin', the other years for Kew.

	1816	**1866**	**1916**	**1966**	**2016**
Tmax	0.8	12.4	5.2	12.6	14.0
Tmin	-1.7	7.3	4.4	9.3	6.0
Tmean	-0.6	10.5	4.8	11.0	10.0

The summer of 2016 offered a cluster of 'record breaking' temperatures. On 20 July night-time temperature at Kew fell to only 20.5˚C, an event which the *London Evening Standard* reported in comparative terms: "London weather: Capital endures the hottest night in TEN YEARS as heatwave continues". Raising the imaginative stakes, the

previous day's heat had been reported in overly emotive language: "London weather: Capital's stations 'like a vision of hell' as heat causes fresh travel meltdown" (*London Evening Standard*, 19 July 2016).

The reporting of extreme weather uses whatever benchmarks are to hand or whatever can be mined from the data: whether, as in the cases reported earlier, the last 5, 10 or 23 years; whether 'since records began'; or whether the worst/best/most extreme in living memory or "scarcely remembered by the oldest inhabitant".

Conclusion

Weather always leaves its mark on people and places, landscapes and structures. These 'marks' remain visible in the material/physical world but also, less visibly, in the lives and memories of individuals affected and in the cultural imagination (Hall & Endfield, 2016). It is true that larger-scale climatic patterns and processes have changed between 1816 and 2016, as too has London's culture and its material infrastructure. But this study suggests that at the level of the everyday great similarities persist in the marks weather leaves on London and its people. The 200 years of public reporting of weather surveyed here reveals recurring tropes and persistent linguistic styles in explaining how weather is 'active' in private and public life. Whether in 1816, 1866, 1916, 1966 or 2016 we have identified public anxieties prompted by 'unusual weather', visual dramas associated with 'great storms', accusations of weather's culpability for personal harm and persistent quests to announce 'record-breaking' weather.

There are of course many more ways of experiencing and reporting the weather than identified here and as one moves between different cultures some of these will be both familiar and unfamiliar (e.g. Meze-Hausken, 2007; Strengers & Maller, 2017). But even if the idea of anthropogenic climate change 'changes everything' (cf. Klein, 2014), this study has shown that at the level of the everyday the personal and cultural experience of weather, and its public reporting, remains recognizable across multiple generations. There is an unending need for humans to make sense of their experience of variable weather and the emotional and material marks it leaves. Inserting these cultural sense-making routines into studies of the meaning and significance of climate and its past and future changes is essential if justice is to be done to the complex, yet sustaining, ways in which people live imaginatively in their climates.

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