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# Poverty and environment in early modern England

John Emrys Morgan

## ABSTRACT

This chapter examines the relationships between poverty and environment in early modern England. It explores the lived environments of poverty at three scales (the climate, the landscape and the body) where the impact of environmental forces was registered, and on which poverty and inequality operated. The experience of poverty constituted a set of particular environmental experiences which ranged from being exposed to hazards or being rendered vulnerable to disaster, to exercising customary rights to forage and defending lifeways from large-scale landscape change. The chapter considers the material, social and ideological nature of the lived environment and argues that poverty needs to be understood in its environmental contexts in order to more fully grasp the lived experience of the poor.

In early July 1616, Ursula Coxe, a widow living in Curry Mallet, Somerset, appealed to the assembled justices of the county for relief. She stood before them homeless, without family, and facing expulsion from her parish. Less than a decade earlier she had owned property worth more than £80 and resided ‘in good estate’ in the North Somerset village of Kingston Seymour.<sup>1</sup> A storm surge along the Somerset coast in January 1607 had caused widespread flooding throughout the Bristol Channel and Severn estuary region, and in Kingston Seymour in particular. A contemporary brass plaque in the parish church recalls the ‘inundation... overflowing and breaking down [of] the Sea banks’ and how ‘many Persons were drown'd and much Cattle and Goods, were lost’. News reports of the devastation circulated across Europe, emphasising the destruction, and the violence of the waters ‘bearing downe all thinges that were builded to withstand and hinder the force of them’.<sup>2</sup> Two years later more localised flooding affected low-lying parishes along the Somerset coast, and it was around this time that Ursula was forced from her Kingston Seymour home, having lost her estate ‘by reason of the inundation of the sea in all that country’. Without a home of her own, Ursula lodged with her father, thirty miles south in Curry Mallet for four years. Her father died and she remained in the parish for a further three years until 1616. But by the summer of 1616 the parishioners of Curry Mallet had run out of empathy. Ursula was a potential burden and the parishioners tried

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<sup>1</sup> *Quarter Sessions Records for the County of Somerset, Vol. I. James I. 1607-1625*, ed. E.H. Bates ([Frome], 1907), 180-81.

<sup>2</sup> Anon., 1607. *A true report of certaine wonderfull ouerflowings of waters, now lately in Summerset-shire, Norfolke, and other places of England* (London: Edward White, 1607), sig. A4; see also Anon., 1607, *Een warachtich verhael van de schrickelicke springh-vloedt in het landtschap van Summerset, Norford, ende verscheyden andere plaetsen in Enghelandt gheschiet* (Amsterdam: Cornelis Caelsz, 1607); Anon., *Eine warhafftige Beschreibung Der grawsamen unnd Erschrecklichen Wasserfluth/ welche sich dieses 1607. Jahrs/ im außgange deß Monats Januarii/ in der Landtschafft Summerset, Norford, und andern unterschiedlichen orten in Engellande begehen* (n.p. 1607).

to force her to leave. She pleaded before justices for relief finding herself now forced to live ‘of late... in the open streets in great extremity of thunder and lightning’. This moved the justices to act, ordering for Ursula’s settlement and support.<sup>3</sup>

As the Somerset justices presided over Ursula’s fate in Taunton, thunder and lightning were ringing out elsewhere in the country. In north Lincolnshire, a fine spring had produced a bumper crop of peas and corn in the village of Humberstone. Realising their neighbours’ good fortune, ‘the poore people of the towne’ requested that they might exercise their customary, but never codified right of gleaning to satisfy their wants. They were denied and their neighbours reacted angrily, all except one. Seeing such a lack of charity, Goodman Harrison opened his fields to the poor to take peas. The poor of Humberstone set about their work on Harrison’s fields. Just as they finished, the heavens opened: ‘great cracks of Thunder brake from the skies, and strange lightnings flashed up and downe’. Rain fell ‘so hastily as if it had beene out of a spout or conduit’. Hail ‘full nine inches square’ beat corn and peas to the ground, ‘so razor like cut[ting] of[f] the cods and heads of the corne’. The village’s crop was ruined, except for Goodman Harrison’s. His fields, scattered across the landscape and interdigitated with his neighbours’, remained miraculously unscathed. This was an act of divine providence. The anonymous author of *Thunder, haile & lightning from heauen* set it down ‘to call to minde, how God by that gentle warning threatneth further vengeance’. The moral message of storm was clear: ‘thou shalt beare nothing of thy goods to judgement with thee, but that which thou hast given to the poore.’<sup>4</sup>

The stormy early July of 1616 offers us three reflections on the relationships between poverty and environments, which together serve as a guide for understanding the environmental history of poverty in the early modern period. The original trigger for Ursula Coxe’s poverty was flooding, demonstrating the incidental and endemic environmental forces that influenced poverty. Ursula’s poverty also shaped her experience of extreme weather in Curry Mallet, demonstrating how environmental experience was conditioned by social forces. And the reading of coincident extreme weather in Lincolnshire as the wrath of God directed towards uncharitable farmers demonstrates the importance of the ideological interpretation of the physical environment in justifications of poverty and charity.

The importance of these three ways of understanding the environmental history of poverty – physical, social and representational – is amplified by a fundamental connection between environments and poverty in the pre-modern world: the ‘organic economy’. The organicism of the early modern economy came from what E.A. Wrigley has termed the ‘photosynthetic constraint’. This was the constraint placed on economies by virtue of a dependence on the growth of plants (principally wood and cereals) which embodied solar energy into forms consumable and convertible by human beings. Those plants were given succour by soils tilled by the hands and hooves of creatures for whom they provided sustenance, and nourished by the fertilisers those creatures left behind or harvested from river, land and sea. Food was ‘the petrol of the early modern economy’ and wood its primary raw material.<sup>5</sup> This organic economy characterised the pre-modern world and only came to an end

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<sup>3</sup> *Quarter Sessions Records*, ed. Bates, 22, 25-26, 45, 47-48, 180-81.

<sup>4</sup> Anon., *Thunder haile, & lightn[ing] from heauen. Sent against certaine couetous persons, inhabitants of Humerstone Lincolneshire, 5. miles from Grimsby* (London: G. Eld, 1616).

<sup>5</sup> Craig Muldrew, *Food, Energy and the Creation of Industriousness: Work and Material Culture in Agrarian*

as the photosynthetic constraint was broken by the transition to fossil fuels. From the later eighteenth century, production began to exploit energy embodied over millions of years as coal, oil and gas, which in later centuries would be used in the production of refined chemical fertilisers. The transition from an organic to a fossil-fuelled economy began in the early modern period and its completion is one of the clearest signs of the birth of the modern world in Europe and North America.

As a state of relative economic deprivation, poverty is intimately bound up with the economic conditions by which it is measured. It is therefore necessary to understand poverty in an organic economy in relation to its ‘organic’ fundamentals. Just as how in a knowledge economy or a consumer economy we would expect to consider poverty in relation to access to education and culture or to markets and credit, in an organic economy we must think ecologically about poverty. While all poverties have environmental dimensions, it is especially important to understand poverties in environmental terms where basic needs are satisfied from or close to the immediate environment.

An environmental approach to early modern poverty is relatively new and necessarily draws on established economic and social histories. The historiography of poverty in early modern Europe has considered a number of different contexts which shaped the experience of the poor. Among these are important contexts covered elsewhere in this book: the law, institutions, religious practice, cultures, and economies. But rarely have historians addressed early modern poverty in its environmental context.

Environmental history has flourished as a discipline since the 1980s, and has come to have a close affinity with new social and cultural history approaches coincident with its rise. While some environmental historians remain concerned with the large-scale structural relationships between climate, society and economy, others now treat environment in ways that will be familiar to many social and cultural historians.<sup>6</sup> Today environmental historians are just as likely to enquire into the environmental consequences of historical processes or historical environmental ideas as they are into more longstanding areas of study, such as environmental influences on human society. Environmental history now places emphasis on environmental inequality, vulnerability, ideas about nature and environment, and forms of environmental conflict. Much of this work is self-consciously identified as ‘socio-environmental’ and understands environments as entangled with rather than separate from human societies.

It is from this perspective of contemporary environmental history that I turn to poverty. With a broad view of how environments and societies entwine, much of the social and economic history of early modern Europe can be viewed in a new light. We can read writings on custom, landscape, agriculture, and production environmentally by reorienting of our focus. Where once grain prices, the regulation of the commons, or fuel provision might have been considered the proper domain of economic history, we can read them as environmental histories too, in a return to an *Annaliste* focus on the relations between the currents, cycles and events of human and natural history, or through a neo-materialist insistence on the persistent

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*England, 1550–1780* (Cambridge: Cambridge University Press, 2011), 2; Paul Warde, *The Invention of Sustainability: Nature and Destiny, c. 1500-1870* (Cambridge: Cambridge University Press, 2018), 58.

<sup>6</sup> See Geoffrey Parker, *Global Crisis: War, Climate Change and Catastrophe in the Seventeenth Century* (New Haven: Yale University Press, 2013) and Bruce Campbell, *The Great Transition: Climate, Disease And Society In The Late Medieval World* (Cambridge: Cambridge University Press, 2016) for two recent examples.

vitality of things, for example.<sup>7</sup> In our contemporary world of heightened environmental consciousness arable farming, community-based natural resource management or peat cutting appear self-evidently environmental in nature and there is much that considering such things as purely social or economic leaves out. Environmental history approaches leave things out too: too often environmental history unifies rightfully disparate groups as environmental actors *en masse* when they are better understood disaggregated.<sup>8</sup> But an environmental approach to poverty helps foreground some of its material fundamentals, and by paying heed to the important contributions of social, cultural and economic history, it allows us to grasp a fuller sense of the lived experience of the poor in the early modern world.

The remainder of this chapter takes up this task through the idea of the ‘lived environments of poverty’. This formulation is inspired by the geographer Mike Hulme, who encapsulates the lived experience of climate in his book *Weathered*:

‘Climates are ... “lived” through, *inter alia*, the atmosphere, landscapes, social imaginaries, clothing, built environments, emotions, ritual and weather-talk of specific places and cultures. ... Bodies, cultural pursuits, material artefacts and memories respond to the weather to which they are exposed. The idea of climate becomes inseparable from imaginative, social and material practices. People and their cultures become “weathered”.’<sup>9</sup>

A focus on how environments are *lived* foregrounds experience and agency, the strategies and accommodations that people practised in order to dwell within their environments, as well as how those environments registered on them in return. Insisting on environments, plural, keeps both the variety of subjective environmental experiences and the multiplicity of scales at which environments are configured in focus. Environments are concentric and overlapping, and can be grasped at a variety of scales.<sup>10</sup> The word ‘environments’ also avoids anachronistically reading ‘the environment’, singular, backwards into the past, given its mid twentieth-century origins as a discrete object of scientific enquiry, policy and activism.<sup>11</sup> And by being explicit about whose lived environments we are exploring, we situate people at the heart of this story, their subjective experiences, and how they understood, influenced and experienced the environments they made and which made them in turn.<sup>12</sup> Environments are historical and always in flux. In this chapter poor people and their experiences provide us with perspectives on the contributions to and consequences of those fluxes.

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<sup>7</sup> Such an approach is outlined in Timothy LeCain, *The Matter of History: How Things Create the Past* (Cambridge: Cambridge University Press, 2017).

<sup>8</sup> Alan Taylor, ‘Unnatural Inequalities: Social and Environmental Histories’, *Environmental History*, 1, 4 (1996).

<sup>9</sup> Mike Hulme, *Weathered: Cultures of Climate* (London: Sage, 2016), 56-57.

<sup>10</sup> Dolly Jørgensen and Sverker Sörlin, ‘Making the Action Visible: Making Environments in Northern Landscapes’, in *Northscapes: History, Technology, and the Making of Northern Environments*, ed. Dolly Jørgensen and Sverker Sörlin (Vancouver: UBC Press, 2013).

<sup>11</sup> Paul Warde, Libby Robin and Sverker Sörlin, *The Environment: A History of the Idea* (Baltimore: Johns Hopkins University Press, 2018).

<sup>12</sup> This approach draws on Paul Warde and Sverker Sörlin’s notion of ‘environing’ – the process whereby people recognise, act on and shape their environments. See Sverker Sörlin and Paul Warde, ‘Making the Environment Historical – An Introduction’, in *Nature’s End: History and the Environment*, ed. Sverker Sörlin and Paul Warde (Basingstoke: Palgrave, 2009), 2-3; Paul Warde, ‘The Environmental History of Pre-industrial Agriculture in Europe’, in *Nature’s End*, Sörlin and Warde, 75.

By examining the lived environments of poverty in early modern England, this chapter argues that historical poverties are bound up with historical ecologies, and that consequently the early modern organic economy produced specific experiences of poverty. Those experiences remained entangled with other critical elements of the early modern experience, such as wealth, power, gender, and location. Poverty shaped the experience of landscape, climate, and environment, and vice versa. We explore these experiences through three concentric sites: climates, landscapes and bodies.

## Climates

Climate has multiple significances in the early modern period. As distinct from the more holistic ‘environment’, climate refers to the overarching atmospheric and meteorological conditions of a given place over time. As we are increasingly aware, physical changes in climate impact society. Long-term, large scale changes in the global climate caused adverse conditions with consequent social impacts, including a sharpening of poverty. The early modern period sits within a broader period of generally lower-than-average temperatures, from c. 1300 to 1850, which historical climatologists have dubbed the ‘Little Ice Age’ (LIA) due to the advance of central European glaciers. Numerous data sources have been drawn together, from ice cores and speleothems to weather diaries and tree rings, to construct a picture of a climate significantly cooler on average than either the ‘Medieval Warm Period’ of c. 900 to 1300 or the ‘Warm Twentieth Century’. The LIA was not universally cold: climate during the LIA was variable, with colder periods interspersed with ‘normal’ and occasional periods of warmth above twentieth-century averages, such as the years around 1730.<sup>13</sup> But the general pattern was for winters to be longer and colder, and runs of consecutive cold years to be more common.<sup>14</sup>

There are many steps between climate and its impact on society, and thus many steps between a harsh climate and the experience of poverty. One recent influential model proposes a four-stage process in which climate and society interact: first, in the biophysical sphere, where the primary production of biomass (crops, wood, etc) is affected. Then socio-economic impacts are triggered, as the prices of those products change and impact on population health and economic activity. Consequently nutrition, demography and social cohesion are affected. Finally, cultural impacts kick in, through the interpretation of events, and the engagement of cultural memory and social learning.<sup>15</sup> Such models underscore the fact that the impacts of climate are refracted through the prism of society. Climate operates indirectly through agriculture, economy, social relations, etc, and should accordingly be understood through differing social vulnerabilities. As Andrew Appleby argued, the ‘crucial variable’ in any climate-society interaction was never weather, but rather the ‘ability to adapt to the weather’.<sup>16</sup>

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<sup>13</sup> Jürg Luterbacher, Daniel Dietrich, Elena Xoplaki, Martin Grosjean and Heinz Wanner, ‘European Seasonal and Annual Temperature Variability, Trends, and Extremes Since 1500’, *Science* 303, 5663 (2004).

<sup>14</sup> Christian Pfister, ‘Weeping in the Snow: The Second Period of Little Ice Age-type Impacts, 1570-1630’, in *Cultural Consequences of the Little Ice Age*, ed. Wolfgang Behringer, Hartmut Lehmann and Christian Pfister (Göttingen: Vandenhoeck & Ruprecht, 2005).

<sup>15</sup> This is Daniel Krämer’s model, reproduced in Chantal Camenisch and Christian Rohr, ‘When the weather turned bad. The research of climate impacts on society and economy during the Little Ice Age in Europe. An overview’, *Cuadernos de Investigación Geográfica* 44, 1 (2018), 101. See also Jürg Luterbacher and Christian Pfister, ‘The year without a summer’, *Nature Geoscience* 8 (2015), 248.

<sup>16</sup> Andrew Appleby, ‘Epidemics and famine in the Little Ice Age’, *Journal of Interdisciplinary History* 10, 4 (1980), 663.

And so we find the impacts of the Little Ice Age felt through changes in primary production, the behaviour of markets and the responses of cultures, more than the direct impact of cold winters on exposed people.

Climate had the most significant impact on the harvest. The harvest was the ‘heartbeat’ of the early modern economy, and its fluctuations shaped the experience of poverty. The cost of food accounted for around 70 per cent of poor and labouring English families’ annual expenditure, and bread was considered the most important staple and therefore the most significant cost in food budgets.<sup>17</sup> Wheat was the favoured grain and most important in the south and east of England, while oats and barley were of greater importance in the north and west; across Europe cereals made up the vast majority of poor people’s diets as the immediate need for calories came before protein and other nutrients.<sup>18</sup> When yields dropped and prices rose, there was either insufficient food available or consumers’ ability to purchase it declined, or both. Trading down to eat or sow cheaper grains, such as oats, was one strategy reluctantly adopted in hard times, with wheat flour made to stretch with the addition of barley, oats and peas.<sup>19</sup> The impact of climate on prices was not immediate in much of early modern Europe. Well-connected areas like the North Sea basin coastal zone could replace poor domestic production with grains shipped in from the Baltic. More marginal areas could struggle: poorly accessible inland or mountain regions that lacked cost-effective transport links to major grain markets were particularly vulnerable to climate-induced harvest failure and price hikes, as with Breda and Maastricht in the poorly-connected southern Low Countries or the inhabitants of upland regions like the Eichsfeld and the Ore Mountains in Germany (although the remarkably resilient Swiss mountain community of Törbel provides an important corrective to any notion of topographical determinism).<sup>20</sup> For this reason, local topography, infrastructure and regional market integration were strong influences on the incidence of localised famine. While historians have been confident in claiming that England had ‘slipped the shadow of famine’ by the seventeenth century, individual regions continued to experience famine and extreme privation due to weather-induced harvest failures and geographical isolation.<sup>21</sup>

Beyond its material significance, climate also had soteriological implications for early modern people. Weather was interpreted providentially by both Protestants and Catholics as a signal of divine pleasure and displeasure. The providentially-inflected popular literature of the seventeenth century is full of stories of climatically-induced subsistence crises. Prolonged cold and heavy snow in the winter of 1673/4 pushed those on the poverty line below it in Langsdale, Yorkshire, where snowed-in villagers quickly ran down their meagre stocks and eventually

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<sup>17</sup> Muldrew, *Food*, 29, 39.

<sup>18</sup> Robert Jütte, *Poverty and Deviance in Early Modern Europe* (Cambridge: Cambridge University Press, 1994), 73-74.

<sup>19</sup> Richard Hoyle, ‘Why was there no crisis in England in the 1690s?’, in *The Farmer in England, 1650–1980*, ed. Richard Hoyle (Farnham: Ashgate, 2013), 78.

<sup>20</sup> Appleby, ‘Epidemics and famine in the Little Ice Age’; Daniel Curtis, Jessica Dijkman, Thijs Lambrecht and Eric Vanhaute, ‘Low Countries’, in *Famine in European History*, ed. Guido Alfani and Cormac Ó Gráda (Cambridge: Cambridge University Press, 2017), 127; Dominik Collet and Daniel Krämer, ‘Germany, Switzerland and Austria’, in *Famine in European History*, ed. Alfani and Ó Gráda, 102; Robert Netting, *Balancing on an Alp: Ecological Change and Continuity in a Swiss Mountain Community* (Cambridge: Cambridge University Press, 1981), 90.

<sup>21</sup> Richard Hoyle, ‘Famine as agricultural catastrophe: the crisis of 1622–4 in east Lancashire’, *Economic History Review* 63, 4 (2010).

starved.<sup>22</sup> Cold weather made for popular news, and authors of cheap print glossed their dramatic tales of country hardship with exhortations to charity. ‘We wish that Rich mens Charity may not have been as cold and harsh as the Season’ opined an anonymous pamphleteer during the cold winter of 1676: ‘whilst we unchristianly suffer them to starve or perish for Cold, we expose our selves for such unmercifulness to the danger of everlasting burnings.’<sup>23</sup> During the hard winter of 1694/5, the astronomer John Flamsteed observed that January’s hardships were a sign that the following December would follow suit, with hardship and death for the poor ‘unless timely relieved... by the Charity of well disposed Persons, which this weather no doubt will move to compassionate them.’<sup>24</sup>

As these moralising predictions suggest, cold winters and associated hard times provided an opportunity for the performance of charity and the rehearsal of obligations. Harvests, and their failures, were accompanied by various customs and rituals. Moments of crisis provided opportunities for local lords to demonstrate their beneficence through hospitality, and parishes might give out discretionary relief. During the crisis years of successive harvest failure in the mid-1590s, this became particularly important. The Privy Council issued orders for general fasting and hospitality in the dearth years of 1596-7, exhorting charity from all householders towards the poor and needy.<sup>25</sup> Hospitality in hard times was an expectation; when the tenants of the manor of Hunton recited their customs in 1598, they complained that the lord had failed in his duties to provide hospitality and relieve the poor.<sup>26</sup> While the efficacy of ‘kindly yeomen neighbours and a scattering of landlords with social consciences’ in alleviating famine has been questioned, environmental influences on harvests shaped the social and cultural script of the English countryside – one which was characterised by obligation, deference and expectation.<sup>27</sup>

While much of the early modern period is characterised by the generally cooler winter temperatures of the Little Ice Age, a number of extreme weather events caused short-term mass privation. A series of dramatic flood events hit coastal England across the later sixteenth and seventeenth centuries. In 1570, a particularly stormy October saw the village and church at Mumby Chapel in Lincolnshire destroyed by coastal flooding, and culminated in the altogether more damaging All Saints Flood of 1 November in the Netherlands, which has lived long in the Dutch national memory.<sup>28</sup> The scale of losses caused by exceptional weather events is rendered vividly in Daniel Defoe’s compendium of reports from the Great Storm of 1703, ‘not a House, not a Family, that had any thing to lose, but have lost something by this Storm, the

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<sup>22</sup> Anon., *A true and perfect narrative of the great and dreadful damages susteyned in several parts of England, by the late extraordinary snows* (London: P. Brooksby, 1674).

<sup>23</sup> Anon., *A True account of the late extraordinary frost and snow and the great damages thereby sustained in divers parts of England* (London: D.M., 1676), 8.

<sup>24</sup> John Flamsteed, *Flemstadts most strange and wonderful prophecy, foretelling what may be the wonderful effects and continuance of this present frost and great snow* (London: E. Golding, 1695).

<sup>25</sup> Steve Hindle, ‘Dearth, fasting and alms The campaign for general hospitality in late Elizabethan England’ *Past & Present* 172 (2001).

<sup>26</sup> John Walter, ‘The social economy of dearth in early modern England’, in *Famine, Disease and the Social Order in Early Modern Society*, ed. John Walter and Roger Schofield (Cambridge: Cambridge University Press, 1989).

<sup>27</sup> Richard Hoyle, ‘Britain’, in *Famine in European History*, ed. Alfani and Ó Gráda, 156

<sup>28</sup> A.E.B. Owen, ‘Chapel St. Leonard and the Flood of 5 October 1570’, in *Lincolnshire people and places: essays in memory of Terence R. Leach (1937–1994)*, ed. Christopher Sturman (Lincoln: Society for Lincolnshire History and Archaeology, 1996).



Sea, the Land, the Houses, the Churches, the Corn, the Trees, the Rivers, all have felt the fury of the Winds.’<sup>29</sup>

Not all such climatically-influenced disasters were ‘natural’. Economic forces drove certain kinds of seemingly ‘natural’ disaster in the North Sea region. Life in the coastal region stretching from south-western Denmark, along the North Sea edge to Flanders and up the eastern seaboard of England depended on the adequate maintenance of sea walls and the drainage of coastal marshland. Along much of this coast land was reclaimed, and required a continuous investment in systems of ditches, sluices, and in places windmills in order to keep land agriculturally productive. As Tim Soens has uncovered in a series of important studies, the coastal floods that occurred in this region were often as a result of under-investment in defence rather than particularly strong storms. The agricultural choices of absentee landowners determined the level of flood protection they were willing to provide to their tenants. Where land had been turned over to sheep, a lower standard of drainage was required, and when the price of wool dropped, investments in sea wall maintenance fell accordingly. Such was the case on Romney Marsh across the seventeenth and eighteenth centuries.<sup>30</sup> The resultant floods and privation for coastal tenants were caused by the poor protection of land reclaimed in one economic climate and then subject to another. The experience of the Po Valley across the sixteenth century is very similar: as medieval hydraulic works silted up, large urban landlords failed to invest in their upkeep and instead turned their arable farms over to meadows which could be productive in wetter conditions. As the valley continually flooded, the supply of grain and employment dried up, perpetuating poverty and triggering subsistence crises.<sup>31</sup> Here, imbalances of wealth and power generated disaster.

In this sense, the effects of extreme weather and other Little Ice Age-type events were similar to those of other kinds disaster. These were in many ways ‘unnatural’ disasters, produced by and perpetuating inequality. Historical disaster research has demonstrated that it was often the poorest who suffered most from disaster due to increased exposure to risk, structural vulnerability and an inability to economically buffer against losses. Entire communities could be affected like this, as with already poor coastal communities in North Lincolnshire. Here repeated storms, expensive flood defence repairs and economic stagnation locked coastal communities into a spiral of demographic decline across the later sixteenth and seventeenth centuries, while inland communities grew.<sup>32</sup> On a micro-level we find seemingly ‘universal’ disasters having unequal social impacts. The pamphlet literature describing great town fires in early modern England emphasises the symbolic nature of the temporary inversions experienced in the immediate aftermath: fire at Tiverton in 1612 was ‘a flame of subversion’ which undid the wealthy, who had ‘to lodge themselves on the cold ground, that in the morning had choise of beds’. But civic authorities attempted to relieve suffering through compensation

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<sup>29</sup> Daniel Defoe, *The Storm*, ed. Richard Hamlyn (London: Penguin, 2005 [1704]), 108-9.

<sup>30</sup> Tim Soens, ‘Threatened by the Sea, Condemned by Man? Flood risk, environmental justice and environmental inequalities along the North Sea coast 1200-1800’, in *Environmental and Social Justice in the City: Historical Perspectives*, ed. Geneviève Massard-Guilbaud and Richard Rodger (Cambridge: White Horse Press, 2011); Soens, ‘Resilient Societies, Vulnerable People: Coping with North Sea Floods Before 1800’, *Past & Present* 241 (2018).

<sup>31</sup> Daniel R. Curtis and Michele Campopiano, ‘Medieval land reclamation and the creation of new societies: comparing Holland and the Po Valley, c.800 – c.1500’, *Journal of Historical Geography* 44 (2014), 108.

<sup>32</sup> John Emrys Morgan, ‘Funding and organising flood defence in eastern England, c.1570-1700’, in *Water Management In Europe (12th-18th Centuries)*, ed. Giampiero Nigro (Prato: Firenze University Press, 2018).

proportionate to individuals' losses, failing to address the issue of pre-existing poverty and the vulnerability to disaster it produced. Those who had lost the least in absolute terms had often lost most of what they owned in relative terms and were the least able to recover.<sup>33</sup> As such, extreme events punctuated the experience of poverty with acute periods of privation, from which it could be very difficult to recover.

## Landscapes

Climate and meteorological forces shaped the experience of poverty on a large scale and in general, but it was in the landscape that early modern people made a living, registered their discontent and found themselves excluded. As such, the experience of poverty varied sharply due to the nature of place. Environments both expose and afford – that is they can expose people to certain risks and hazards, or provide certain affordances in the form of flora, fauna and minerals.

Economies of 'shift' were enabled by different landscape features and associated local customs. 'Shift' is all the work done as a form of by-occupation, often informal and seasonal work, undertaken between the routine labours of daily life, 'activities in which the poor might engage to protect themselves from indigence'.<sup>34</sup> In a world in which little was consciously wasted, found things might make an important contribution to the household.<sup>35</sup> This of course had ecological consequences. As Tom Williamson has noted, the dead wood used for fuel by the early modern poor would have served as an important habitat for fungi and invertebrates if left lying.<sup>36</sup> But that which was taken from the mushroom and the beetle formed a critical element of the domestic economy and functioned as a kind of pre-poor relief safety net into which the temporarily poor could fall when priced out of markets. Forests provided ample space on which poor people might settle and claim common rights, away from the gaze of the lord or the vestry, claiming dubious customary rights to firewood, pasture and dwelling.<sup>37</sup> A living could be made from the products of wetlands; with dexterity and skill, sedges and reeds were useful thatching and heating materials, while fish and fowl could provide sustenance.<sup>38</sup> The acidic soils of the uplands of the Welsh Marches provided a regular bounty of edible bilberries, and an occasion for courtship and festivity when they were ritually harvested on the Isle of Man.<sup>39</sup> Less palatable resources could be exploited in hard times. Foraged dock leaves and nettles formed part of the diet of Gloucestershire children during a depression in the cloth industry in the spring of 1586, as high prices pushed barley beyond their parents' reach.<sup>40</sup> The northern fens of Lincolnshire provided a range of fauna to which the poor could turn in hard

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<sup>33</sup> John Emrys Morgan, 'The representation and experience of English urban fire disasters, c.1580 - c.1640', *Historical Research* 89, 244 (2016).

<sup>34</sup> Steve Hindle, *On the Parish? The Micro-Politics of Poor Relief in Rural England, c.1550–1750* (Oxford: Oxford University Press, 2006), 21.

<sup>35</sup> Donald Woodward, 'Straw, Bracken and the Wicklow Whale: The Exploitation of Natural Resources in England Since 1500', *Past & Present* 159 (1998).

<sup>36</sup> Tom Williamson, 'How natural is natural? Historical perspectives on wildlife and the environment in Britain', *Transactions of the Royal Historical Society* 29 (2019), 302.

<sup>37</sup> Hindle, *On the Parish?*, 32-34.

<sup>38</sup> Oliver Rackham, *The History of the Countryside* (London: J.M. Dent, 1987), 321, 381; T.A. Rowell, 'Sedge (*Cladium mariscus*) in Cambridgeshire: Its Use and Production since the Seventeenth Century', *Agricultural History Review* 34, 2 (1986).

<sup>39</sup> Richard Mabey, *Flora Britannica* (London: Chatto & Windus, 1997), 162-63.

<sup>40</sup> Buchanan Sharp, *In Contempt of All Authority, Rural Artisans and Riot in the West of England, 1586-1660* (London: Breviary Stuff Publications, 2010 [1980]), 9-10.

times. William Pelham wrote to the Privy Council from Brocklesby, Lincolnshire, claiming that the poor ate raw sheep's meat, horses and even dogs during the spring of the crisis year of 1623. (Whether this actually happened is questionable – dog meat features in the list of food eaten by 'Poor Tom' in *King Lear*, discussed below.)<sup>41</sup> The following winter he lamented the destruction of fowl during moulting season, a time 'when they are unwholesome for food', a more likely source of crisis nourishment in straightened circumstances.<sup>42</sup> In each case, the experience of poverty was shaped by the affordances of landscape. To be poor in the lowlands of Lincolnshire was not the same as being poor in the uplands of the Marches. So vital was the contribution of gathered and foraged resources to household economies in resource-rich regions, that these activities look less like contributions to an economy of makeshifts and more like an 'economy of diversified resources'.<sup>43</sup> Early modern governors recognised this, and after 1662 settlement legislation began to restrict migration to parishes with significant natural resources.<sup>44</sup>

While rural landscapes provided myriad niches which the poor might exploit, demographic growth and the expansion of cities meant that the lived environments of poverty were increasingly urban. Where the rural poor might make use of resources that fell outside the commercial economy, the urban poor made use of its detritus. Meager livings could be made from what the city threw away. 'Bunters' collected rags and bones from waste heaps, and 'cinder sifters' sifted ash for processing as agricultural fertiliser.<sup>45</sup> While it is true that smaller 'urban' townships like Sheffield retained commons in upland areas which afforded inhabitants a supply of heather for fuel and game for food, possibilities for gathering and foraging in cities and larger towns were bleak.<sup>46</sup> Coal dropped from the caravels and lighters of the Thames could be gathered around Greenwich by the subsistence mud larks of early modern London.<sup>47</sup> Rotten apples and cabbage stalks were all eleven-year-old Mary Howell could glean from London's markets as she escaped an abusive father in 1749/50. She subsequently left for the country where hedges provided a little forage and shelter.<sup>48</sup> Finding cover in the city could be difficult and beset with dangers. Poor children huddled together under market stalls for warmth but were chased out by constables.<sup>49</sup> Vagrants illicitly bedded down in London's privies, cellars, coal holes and churches, where some died and others gave birth in what little shelter they could find.<sup>50</sup> For the poor who avoided the 'great confinement' of workhouses and pauper 'hospitals'

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<sup>41</sup> Jonathan Healey, 'Land, population and famine in the English uplands: a Westmorland case study, c.1370–1650', *Agricultural History Review* 59, 2 (2011), 151.

<sup>42</sup> *Seventeenth Century Economic Documents*, ed. Joan Thirsk and J.P. Cooper (Oxford: Clarendon Press, 1972), 24; The National Archives, SP 14/159 f.37, Sir William Pelham to Secretary Conway, 12 February 1624.

<sup>43</sup> Steve Hindle, '“Not by bread only”? Common right, parish relief and endowed charity in a forest economy, c. 1600–1800', in *The poor in England 1700–1850: An economy of makeshifts*, ed. Steven King and Alannah Tomkins (Manchester: Manchester University Press, 2003), 65.

<sup>44</sup> Sara Birtles, 'Common land, poor relief and enclosure: the use of manorial resources in fulfilling parish obligations 1601-1834', *Past & Present* 165 (1998), 86n

<sup>45</sup> Tim Hitchcock, *Down and Out in Eighteenth-Century London* (London: Hambledon, 2004), 198.

<sup>46</sup> H.R. French, 'Urban agriculture, commons and commoners in the seventeenth and eighteenth centuries: the case of Sudbury, Suffolk', *Agricultural History Review* 48, 2 (2000), 176.

<sup>47</sup> British Library Cotton MS Titus V, Complaints re blockages in the Thames, [no date; 1558-1625] 130.

<sup>48</sup> Hitchcock, *Down and Out*, 2-3, 33.

<sup>49</sup> David Hitchcock, *Vagrancy in English Culture and Society, 1650-1750* (London: Bloomsbury, 2016), 21.

<sup>50</sup> Paul Griffiths, *Lost Londons: Change, Crime and Control in the Capital City, 1550-1660* (Cambridge: Cambridge University Press, 2008), 108-110.

that developed across Europe in the seventeenth century, the urban landscape was unforgiving.<sup>51</sup>

However, landscapes, flora and fauna did not determine the experience of poverty in and of themselves. Regimes to regulate the exploitation of common resources by in- and out-groups governed exactly who could take what, from where and when. E.P. Thompson described custom as part of ‘habitus’; an interlocking set of practices, expectations, rules, possibilities, norms and sanctions that shaped a ‘lived environment’.<sup>52</sup> These rules are then crucial in understanding how landscapes were lived by the poor. Manor courts enacted the regulatory regimes which policed customs, often doing so for centuries, sustaining local communities, and in many cases, the vitality of local landscapes.<sup>53</sup> Where use-rights were specifically given over to the poor, they were administered by parishes as a means of reducing the amount of cash relief that would have to be otherwise raised through rating. Parishioners’ manorial entitlements to common land were used to provide access to firewood (estovers), turf (turbary), and occasionally to pasture animals or graze the stubble of harvested crops (shack). Sara Birtles has demonstrated that this was a form of ‘practical charity consciously given’ which provided a flexible baseline of provision but did not grant the poor legal rights in the form of customs or common rights.<sup>54</sup> Such systems of management remind us of the importance of ‘belonging’ to the experience of poverty. The welfare regimes of early modern England were characterised by discretion and a tightening of the boundaries of community. Belonging to a parish might mean certain guaranteed resources and was often the first hurdle the poor had to clear to demonstrate entitlement to statutory relief. Informally, it could also encourage the kinder discretionary impulses of the manorial bailiff or of one’s neighbours when gleaning, cutting turf or gathering firewood. Those who did not ‘belong’ encountered the restrictive nature of custom and therefore exclusion from access to resources.<sup>55</sup> Given that much of this work of shift was undertaken by women, we must also be alive to the gendered nature of these environmental experiences. Female gleaners and foragers found themselves on the shifting front lines of discretion as customary rights to make a living in the landscape shrunk across the seventeenth century.

For those who did not have to negotiate the complex web of entitlement, discretion and surveillance that shaped practices of foraging and gleaning, making a living in the landscape made the poor seem ‘close to nature’. Shakespeare satirized these elite understandings of the connection between landscapes and poverty with the dissembling beggar ‘Poor Tom’ in *King Lear*. Edgar, the outcast son of the Earl of Gloucester, disguises himself as the archetypal ‘mad’ beggar, Tom o’ Bedlam. The Bedlam beggar was one of many archetypal counterfeit rogues who pretended poverty which Shakespeare’s audience would have recognised, and as such Edgar’s guise as ‘Poor Tom’ would have appeared to the audience as an ill-chosen elite

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<sup>51</sup> Jütte, *Poverty and Deviance*, 169-77.

<sup>52</sup> E.P. Thompson, *Customs in Common* (London: Penguin, 1993), 102.

<sup>53</sup> Angus Winchester, ‘Property rights, ‘good neighbourhood’ and sustainability: the management of common land in England and Wales, 1235-1965’, in *Rural societies and environments at risk: Ecology, property rights and social organisation in fragile areas (Middle Ages-Twentieth century)*, ed. Bas van Bavel and Erik Thoen (Turnhout: Brepols, 2013).

<sup>54</sup> Birtles, ‘Common land’, 75.

<sup>55</sup> Steve Hindle, ‘A sense of place? Becoming and belonging in the rural parish, 1550-1650’, in *Communities in early modern England*, ed. Alexandra Shepard and Phil Withington (Manchester: Manchester University Press, 2000); Hindle, *On the Parish?*, 32.

stereotype and an obviously inauthentic characterisation of poverty.<sup>56</sup> The poverty Edgar imagines for Tom is ridiculous, hyperbolic and deeply rooted in his relationship to his environment. Edgar becomes Tom by weather-beating himself ‘with presented nakedness [to] out-face/ The winds and persecutions of the sky’.<sup>57</sup> Lear falls for the disguise, and his immediate empathy for Poor Tom stems from the same reading of the ‘nature’ of poverty:

Poor naked wretches, whereso'er you are,  
That bide the pelting of this pitiless storm,  
How shall your houseless heads and unfed sides,  
Your loop'd and window'd raggedness, defend you  
From seasons such as these?<sup>58</sup>

‘Poor Tom’ responds, confirming Lear’s prejudices and presenting the work of shift as one of constant crisis provisioning from a foul landscape in even fouler weather:

Poor Tom; that eats the swimming frog, the toad,  
the tadpole, the wall-newt and the water; that in  
the fury of his heart, when the foul fiend rages,  
eats cow-dung for sallets; swallows the old rat and  
the ditch-dog; drinks the green mantle of the  
standing pool; who is whipped from tithing to  
tithing, and stock- punished, and imprisoned; who  
hath had three suits to his back, six shirts to his  
body, horse to ride, and weapon to wear;  
But mice and rats, and such small deer,  
Have been Tom's food for seven long year.<sup>59</sup>

In Edgar and Lear’s minds, to be poor was then to inhabit a poor place, and to experience that place entirely viscerally. The inverse of this pessimistic vision was the naturalisation of poverty in an orderly, bucolic ‘natural’ landscape in which simple lives were provisioned from a world of plenty. In her poem ‘On Poverty’, Margaret Cavendish extols the virtues of the poor who sit in their ‘low Thatcht House[s]’, on ‘But a Stump of an old decayed Tree’, drinking from the springs of ‘Great Nature’ and subsisting on ‘*Roots and Herbs*, not such as Art doth sow,/ But which in Fields do naturally grow.’<sup>60</sup> In these idealized visions of poverty, the poor pressed lightly on the land; the settled poor sat on tree-stump stools supping clear stream waters, while the itinerant poor ate filth and offered little resistance when beaten about by the elements. But as we have seen, making shift in the landscape was not simply harvesting some natural bounty which was given freely. The poor were strategic and tactical in their use of these resources. Gleaned and foraged materials were both a regular feature of the domestic economy and an elastic and diverse source of support in hard times, and the shifting limits of custom and charity

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<sup>56</sup> William C. Carroll, ““The Base Shall Top Th’Legitimate””: The Bedlam Beggar and the Role of Edgar in “King Lear”, *Shakespeare Quarterly* 38, 4 (1987), 434-35.

<sup>57</sup> *King Lear*, Act II, scene III

<sup>58</sup> *King Lear*, Act II, Scene IV

<sup>59</sup> *King Lear*, Act II, Scene IV

<sup>60</sup> Margaret Cavendish, *Poems or Several Fancies in Verse: with the Animal Parliament, in Prose* (London: A. Maxwell, 1668), 137-38.

ensured that there was nothing natural about how the poor exploited the resources of their landscapes.

As these visions of ‘natural’ poverty suggest, landscapes are ideas as much as they are the sum of their habitats and ecologies. As Denis Cosgrove has argued, landscape is ‘a discourse through which identifiable social groups historically have framed themselves and their relations with both the land and other human groups.’<sup>61</sup> New ideologies of landscape developed across the early modern period as economic and predominantly agricultural priorities shaped what contemporaries considered ‘well ordered’, productive landscapes, and those they considered poor and underproductive. New forms of social distinction emerged in early modern England that were expressed through dress, consumption and political alignment, and also became apparent in the landscape. Landscape became a marker of social and moral status. The formal gardens and estates of the gentry, and well-ordered, well-drained farms of the rising yeomanry with their clearly demarcated property rights were contrasted with the supposedly wild and wasteful commons matted with customs and use-rights often exercised by the poor. In the Netherlands this dichotomy was writ large on the landscape. As Simon Schama has argued, the need to constantly pump water from polders and to hold back the sea with dykes led to the equation of wet landscapes with idleness and poverty, and dry ones with industriousness and comfort.<sup>62</sup> When Englishmen looked to the Low Countries for new drainage and wetland farming techniques, they praised the ‘active and ingenious people’ of Holland for the transformation of their fens, lakes and coast into productive agricultural land with well-defined proprietary rights.<sup>63</sup> These were people in stark contrast to the ‘idle’ inhabitants of England’s wetland commons. For the laureate of agricultural improvement literature, Walter Blith, the barrenness of English land had two root causes, ‘In man himself’ and ‘In the Land it selfe’, in that order.<sup>64</sup>

Unenclosed common pasture and its associated common rights were identified as the cause of poverty, as old forms of agriculture pursued out of ignorance and idleness. Large areas of common without enclosures to separate crops from stock and without capital-intensive ‘improvements’ such as drainage or marling left land suitable for pasture, and enabled small-scale subsistence husbandry. Such husbandry promoted idleness, argued agricultural improvers such as John Billingsley who in his survey of Somerset agriculture claimed that ‘in sauntering after his cattle [the commoner] acquires a habit of indolence. Quarter, half, and occasionally whole days are imperceptibly lost. Day labour becomes disgusting’.<sup>65</sup> In this vision of commons, poverty and idleness went hand-in-glove with land use. Such ideas were prevalent throughout the spectrum of agricultural writing from the popular didactic verses of Thomas Tusser, which championed private property and associated custom with covetousness, to the experimental agronomy of Samuel Hartlib, who saw unimproved land as a hangover from the ‘effeminate’ ‘times of *Papistry*’ and asked why ‘there are fewest poore, where there are fewest

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<sup>61</sup> Denis E. Cosgrove, *Social Formation and Symbolic Landscape*, 2nd edition (Madison,: University of Wisconsin Press, 1998 [1984]), xiv.

<sup>62</sup> Simon Schama, *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age* (London: Fontana, 1987), 24.

<sup>63</sup> William Dugdale, *The history of imbanking and drayning of divers fenns and marshes, both in forein parts and in this kingdom* (London: Alice Warren, 1662), 13.

<sup>64</sup> Walter Blith, *The English improver, or a new survey of husbandry* (London: J. Wright, 1649), 7.

<sup>65</sup> John Billingsley, *General View of the Agriculture in the County of Somerset; with Observatiōn on the Means of its Improvement* (London: W. Smith, 1794), 37.

Commons’?<sup>66</sup> Fens and unmanaged forests were seen as wastes, signs of idleness in landscapes characterised by ‘lawlessness, poverty, and squalor’ requiring industrious reform.<sup>67</sup> Charles I believed that that ‘Idle men and wast Lands were the Canker of all States’, and his Attorney General John Banks diagnosed their cause as ‘Commons, Fields, Moores, Wastes, and Fenns, producing for the most part a brood, of the most Idle people of the Kingdome, and by Consequence the most beggarly.’<sup>68</sup> The commons were economically and ecologically stagnant. Drainage and enclosure would cure idleness by putting an end to subsistence pastoral economies and ‘maintain Thousands at Work’, ‘Employment being the greatest Check to Factious Spirits’.<sup>69</sup> Similar ideas about the wastefulness of common use rights persisted across Europe. In the later eighteenth century, the Enlightened improvers of Italy’s Liri Valley attributed the poverty of its inhabitants to the system of common rights to river flow. They argued that such rights had persisted from the time of the Barbarian conquest, trapping the inhabitants in poverty which could only be alleviated by introducing private rights to the river.<sup>70</sup> Improving the land and dividing common property rights between private owners would improve the population, relieving supposedly endemic poverty.<sup>71</sup>

The work of moral and economic reform was therefore enacted on the landscape. Drainage ditches were dug, bunds were raised, and, richest in symbolism, hedges were planted. Hedges were early modern forms of defensible agriculture, a kind of ‘organic barbed wire’.<sup>72</sup> They enabled the division of land and the exclusion of people and animals from private property, interrupting common rights, routeways and recreations. Demarcating land in this way enabled land-holding to be enacted as the ownership and use of a discrete piece of property by an individual. Hedged enclosures facilitated the obstruction and extinguishing of use rights, and were more closely aligned with the flat plans of the surveyor than the concept of land as a ‘bundle of rights and responsibilities’ that included customary practices, or that afforded the little tactics of habitat that constituted the more informal ends of the economy of makeshift.<sup>73</sup> Hedges, in the memorable words of the Digger and utopian communitarian Gerard Winstanley, ‘hedged out’ the poor.<sup>74</sup>

Hedges and ditches became the target of resistance by those who had been pushed into or closer to poverty by enclosure. The poor and labouring classes of early modern Europe held

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<sup>66</sup> Andrew McRae, ‘Husbandry manuals and the language of agrarian improvement’, in *Culture and Cultivation in Early modern England. Writing and the Land*, ed. Michael Leslie and Timothy Raylor (Leicester: Leicester University Press, 1992), 49-50; Samuel Hartlib, *Samuel Hartlib his legacie: or An enlargement of the Discourse of husbandry used in Brabant and Flaunders* (London: Richard Wodenothe, 1651), 52-54.

<sup>67</sup> R.H. Tawney, ‘Introduction’ to Joan Thirsk, *Fenland Farming in the sixteenth century* (Leicester: Leicester University Press, 1965), 4.

<sup>68</sup> John Banks, *Sir John Banks his Report to KING CHARLES concerning the Employing all the Poor and Idle Persons of the Nation, and concerning the Commons, Anno 1637. when he was Attorney Generall.* (n.p., 1637).

<sup>69</sup> John Worlidge, *Systema Agriculturae; the mystery of husbandry discovered* (London: T. Johnson for Samuel Speed, 1669), 187.

<sup>70</sup> Stefania Barca, *Enclosing Water: Nature and Political Economy in a Mediterranean Valley, 1796-1916* (Cambridge: White Horse Press, 2010), 24.

<sup>71</sup> Vittoria Di Palma, *Wasteland: A History* (New Haven: Yale University Press, 2014).

<sup>72</sup> Nicholas Blomley, ‘Making Private Property: Enclosure, Common Right and the Work of Hedges’, *Rural History*, 18, 1 (2007).

<sup>73</sup> Andrew McRae, ‘The peripatetic muse: internal travel and the cultural production of space in pre-revolutionary England’, in *The country and the city revisited: England and the politics of culture, 1550–1850*, ed. Gerald MacLean, Donna Landry and Joseph P. Ward (Cambridge: Cambridge University Press, 1999), 50.

<sup>74</sup> Quoted in Hindle, ‘A sense of place?’, 110.

to what has been called a ‘moral ecology’. Defined by US historian Karl Jacoby and developed by Carl Griffin and Iain Robertson in the context of eighteenth and nineteenth-century Britain, ‘moral ecology’ refers to the shared customs and principles which rural people ‘often spun into a web of local use rights that held the natural world in a tight embrace.’<sup>75</sup> The belief in a customary entitlement to longstanding forms of land and water use could be forcefully asserted when that those forms of use were undermined or threatened. Reasserting a given moral ecology involved acts ranging from human and animal trespass to physically reordering landscapes by hedge-breaking and ditch filling.<sup>76</sup> As Elly Robson has shown, rioters in Gillingham Forest, Dorset, and Braydon Forest, Wiltshire, resisted Crown attempts at disafforestation in just such a way. In a series of actions across the years 1626-31, they destroyed the instruments of enclosure – hedges, ditches and fences – methodically reordering and reinscribing the forest landscape with past patterns of rights and land use.<sup>77</sup> Mass ploughings were among the many strategies engaged by anti-enclosure protestors in Yorkshire, Lincolnshire and Nottinghamshire in the sixteenth century, as they restored pasture to arable and undermined gentry authority.<sup>78</sup> Inhabitants of the fenlands whose livelihoods depended on the maintenance of a wetland landscape destroyed sluices and drains during disturbances against drainage during the Civil War years.<sup>79</sup> Where expropriation not only took land out of common ownership, but also altered how land functioned, the dispossessed retaliated through remaking those landscapes and reasserting their moral ecology.

## Bodies

Climates and landscapes may have influenced and conditioned the lived environments of early modern poverty, but those environments registered on the bodies of the poor. Those bodies are the final sites we must explore to understand the environmental history of poverty.

Poverty brought with it particular experiences of disease and pollution. The ‘poor places’ of the early modern fens had been malarial in the later middle ages and continued to bring on agues and fevers in the early modern period.<sup>80</sup> The complaints of clergy posted to the fens suggest that those who moved into these areas suffered grievously in an unfamiliar disease environment; susceptibility to local illnesses must also have been the lot of those who migrated to wetland areas in search of a living.<sup>81</sup> The close and crowded living conditions of expanding early modern cities also facilitated the spread of disease; it was the poor inner city parish of Christ Church in Bristol, with its alleys and tenements, which suffered most from plague in

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<sup>75</sup> Karl Jacoby, *Crimes Against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001), 196; Carl Griffin and Iain Robertson, ‘Moral Ecologies: Conservation in Conflict in Rural England’, *History Workshop Journal* 82 (2016).

<sup>76</sup> Leonard Baker, ‘Human and Animal Trespass as Protest: Space and Continuity in Rural Somerset and Dorset’, *History Workshop Journal* 87 (2019).

<sup>77</sup> Elly Robson, ‘Improvement and epistemologies of landscape in seventeenth-century forest enclosure’, *Historical Journal* 60, 3 (2017), 34.

<sup>78</sup> Briony McDonagh, ‘Making and breaking property: negotiating enclosure and common rights in sixteenth-century England’, *History Workshop Journal* 76 (2013), 47-50.

<sup>79</sup> Keith Lindley, *Fenland Riots and the English Revolution* (London: Heinemann, 1982).

<sup>80</sup> Mary Dobson, ‘“Marsh Fever” – the geography of malaria in England’, *Journal of Historical Geography* 6, 4 (1980).

<sup>81</sup> Greg Bankoff, ‘Malaria, Water Management, and Identity in the English Lowlands’, *Environmental History* 23:3 (2018).



1636-37.<sup>82</sup> In London, plague hit the poor, but also disproportionately the middling sort, swelling the ranks of those on relief and creating a temporary condition of poverty while quarantine was in place.<sup>83</sup> Sometimes these problems were compounded by other crises. Famine-induced migration brought the rural poor into cities in search of food, and consequently into contact with epidemic diseases they were unfamiliar with. In 1597 migrants from famine-hit Westmorland ventured into the heart of a plague outbreak in Newcastle in order to find food, unwittingly transporting the disease back with them leading to a major outbreak across Cumberland and Westmorland in 1598.<sup>84</sup> It is once again the mobile poor, and subsistence migrants in particular, whose environmental experiences were characterised by a morbid combination of socially-conditioned vulnerability and exposure to hazard. At the same time, early modern physicians located the pathology of epidemic diseases like plague in the ‘putrid’ bodies of the poor: the ‘moral biology’ of contemporary medical discourse identified idleness, intemperance and exposure to filth as the causes of bodily putridity and poor people’s susceptibility to disease.<sup>85</sup> While the early modern city made poor people sick, its culture constructed them as sickly.<sup>86</sup>

Life did get better in early modern towns, particularly during the period of urban renaissance in the later seventeenth century. The heating of London’s homes broke the photosynthetic constraint, as coal rapidly overtook wood as a heat source across the later sixteenth and early seventeenth centuries.<sup>87</sup> Improvements in the public provision of amenities raised the standard of living in general, as civic authorities invested in public fountains and town squares, and widened streets to encourage greater circulation of air. The seventeenth and eighteenth century witnessed a great expansion in urban water supply. Paris constructed the Samaritaine pump, feeding public fountains and expanding suburban areas on both sides of the Seine, while London’s private water supply network grew to cover 45 per cent of homes in 1700 and 70 per cent by the century’s end. Yet even while prices dropped to just three per cent of the average wage, advances in supply bypassed the poorest 30 per cent of Londoners as a widening amenity gap separated rich from poor.<sup>88</sup> The provision of heating tells a similar story: in the eighteenth century the inhabitants of the fashionable Bloomsbury Square might burn over 130 tonnes per year, one hundred times more than that provided to the inhabitants of almshouses.<sup>89</sup> Where towns reconstructed after large fires, they did so with improving visions in mind. The reconstruction of Warwick after the fire of 1694 saw the gentrification of its main commercial streets with classical styling using brick and tile, while its poorer streets were exempted from post-fire building regulations, reinforcing social divisions through building

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<sup>82</sup> Paul Slack, *The Impact of Plague in Tudor and Stuart England* (London: Routledge & Kegan Paul, 1985), 123.

<sup>83</sup> Kira L.S. Newman, ‘Shutt Up: Bubonic Plague and Quarantine in Early Modern England’, *Social History* 45, 3 (2012), 817.

<sup>84</sup> Andrew Appleby, *Famine in Tudor and Stuart England* (Liverpool: Liverpool University Press, 1978), 113.

<sup>85</sup> Kevin Siena, *Rotten Bodies: Class and Contagion in Eighteenth-Century Britain* (New Haven: Yale University Press, 2019), 228-29.

<sup>86</sup> On the construction of the sickly rogue body, see David Hitchcock, ‘Rogue Bodies’, in (forthcoming), sub-section, ‘Pollution’.

<sup>87</sup> William Cavert, *The Smoke of London: Energy and environment in the early modern city* (Cambridge: Cambridge University Press, 2016), 24.

<sup>88</sup> Leslie Tomory, *The History of the London Water Industry, 1580-1820* (Baltimore: Johns Hopkins University Press, 2017), 186-87.

<sup>89</sup> Cavert, *The Smoke of London*, 26.

design.<sup>90</sup> England's urban growth was in many ways atypical; the morphological and occupational development of the rest of Europe's cities tended to be in degree rather than kind. In England, where towns specialised and cities developed distinct urban cultures and social structures, the material gains of the seventeenth century were clearly not distributed evenly.<sup>91</sup>

Discomfort and disease remained the reality of urban living, but this this failed to win the sympathy of urban improvers like John Evelyn. In his essay against the profusion of smoke in London, Evelyn complained of the 'exorbitant encrease of Tenements, poor and nasty Cottages' around London which 'disgrace and take off from the sweetness and amœnity of the Environs of London, and are already become a great Eyesore in the grounds opposite to His Majesty's Palace of White-hall'.<sup>92</sup> In the country, where the privation experienced by those same poor could be woven into an idealistic, organic social order, that same smoke might be a sign of harmony. In 1618, Robert Reyce, a provincial antiquary from Preston, Suffolk, noted that 'the rich cannot stand without the poor ... and the humble thoughts which smoke from a poor man's cottage are as sweet a sacrifice unto the Lord as the costly perfumes of the prince's palace.'<sup>93</sup> As the poor crept ever close in the early modern city, such idealistic fantasies became unsustainable for the likes of Evelyn. Close to home, the material realities of privation became a multi-sensory concern for urban elites.

The regulation of insanitary nuisances was high on the agenda of civic authorities and citizens alike. Leona Skelton has demonstrated that the enforcement of sanitary regulations was a key concern for early modern urban inhabitants across the social spectrum.<sup>94</sup> But while there existed a lively culture of neighbourhood sanitary regulation through a variety of local courts, access to environmental justice was often predicated on the ability to use those courts. William Cavert has shown how nuisance law and sanitary concerns could be mobilised against the smoky sea coal burned by London's poor and the large volumes of smoke produced by its baking and brewing trades. Smoke was a condition and symbol of urban life, but increasingly one from which elites sought to exclude themselves. Charles I used the courts to suppress brewing and the burning of coal around Westminster, objecting, just as Evelyn would, to how smoke tainted the furnishing of the royal residence at Whitehall.<sup>95</sup>

The exercise of environmental justice in this lopsided way, and the experiences of those who it targeted, point toward significant air inequalities in early modern cities. In his analysis of the new regime of risks posed by late-twentieth-century industrial society, the sociologist Ulrich Beck claimed that 'poverty is hierarchic, smog is democratic'.<sup>96</sup> We see a different dynamic at play in the early modern period. The experiences of smoke and smog were determined by socio-economic status. Those living in close proximity in London's east end

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<sup>90</sup> Peter Borsay, 'A County Town in Transition: The Great Fire of Warwick, 1694', in *Provincial Towns in Early Modern England and Ireland: Change, Convergence and Divergence*, ed. Peter Borsay and Lindsay Proudfoot (Oxford: Oxford University Press, 2002), 162-63.

<sup>91</sup> Bruno Blondé and Ilja Van Damme, 'Early Modern Europe: 1500-1800', in *The Oxford Handbook of Cities in World History*, ed. Peter Clark (Oxford: Oxford University Press, 2013).

<sup>92</sup> John Evelyn, *Fumifugium, or The inconveniencie of the aer and smoak of London dissipated* (London: Gabriel Bedel and Thomas Collins, 1661).

<sup>93</sup> Quoted in Alan Everitt, 'Farm Labourers', in *The Agrarian History of England and Wales Volume IV, 1500-1640*, ed. Joan Thirsk (Cambridge: Cambridge University Press, 1967), 396.

<sup>94</sup> Leona Skelton, *Sanitation in Urban Britain, 1560-1700* (London: Routledge, 2015).

<sup>95</sup> Cavert, *The Smoke of London*.

<sup>96</sup> Ulrich Beck, *Risk Society: Towards a New Modernity*, trans. Mark Ritter (London: Sage, 1992), 36.

could not sue for the closure of smoky bakeries and breweries, and it is unlikely that they would have wanted to. Damp coal, like that collected from the Thames foreshore, produces excess smoke, a problem then exacerbated by poor ventilation. The situation in rural areas could be just as bad. Enforced cohabitation could drive poor families to light unventilated fires in their search for privacy in ill-equipped charitable housing. In East Claydon, Buckinghamshire, four poor families shared the church house with a single chimney in 1677; their desire for privacy and rooms of their own led them to light separate fires without ventilation, against mortared wattled walls.<sup>97</sup> Unvented fires are a significant source of indoor air pollution and cause the accumulation of particulate matter in living spaces. Low quality or poorly prepared fuels created thick plumes of smoke. The poor of the Dutch province of Zeeland burned a form of saline peat known as ‘darink’ which was banned in towns due to its ‘stinking piercing smoake’.<sup>98</sup> Peat turves that had been cut and insufficiently dried emit twice the amount of Nitrogen Dioxide and Sulphur Dioxide than dried peat. Without the ability to substitute fuel sources, poor people in regions that relied on peat suffered periodically from wet fuels, smoke and pollutants. Through the thick air of smoky fuels, poverty made itself felt in the lungs of the early modern poor.

But we should not leave the living conditions of the poor here, as a story of environmental vulnerability and exposure to hazard as if these were ignorant people, unaware of the damage they did themselves. As Vladimir Jankovic has argued, heating in these conditions was a rational economic choice. Eighteenth-century physicians were well aware that the body was more susceptible to illness brought on by exposure to the cold when it was undernourished. The choice to heat one’s home and bear the physical cost of smoke inhalation was one made begrudgingly by those, described by eighteenth-century philanthropist Jonas Hanway, as ‘huddled together, and inhaling a stagnated and putrid air, deplor[ing] their miserable situation.’ By burning damp fuel or cooking in a poorly ventilated room, the poor were often making an attempt, in testing circumstances, to ‘feel comfortable on their own terms.’<sup>99</sup>

The comfort of clothing is another essential factor in environmental experiences. The history of clothing has largely been written as a history of dress; that is, a history of clothes as part of the world of material culture, predominantly focussed on the ‘culture’ of material culture. The early modern poor were marked out by their dress – those wearing the ‘clowted shoe’ in seventeenth-century England or *sans culottes* in revolutionary France – and this has caught the attention of historians interested in how clothes could act as an often-enforced signifier of social distinction, patronage and subordination, and how consumer strategies emulated, negotiated and rejected these signifiers. But there were material reasons why a seventeenth-century peasant wore a hob-nailed ‘clowted’ shoe, and why revolutionary Frenchmen preferred trousers that covered the knee, and, therefore, there is a more fundamentally material history of clothing which pays attention to its uses more than its

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<sup>97</sup> John Broad, ‘Housing the Rural Poor in Southern England, 1650-1850,’ *Agricultural History Review* 48, 2 (2000), 158.

<sup>98</sup> Edward Grimston, *A generall historie of the Netherlands VVith the genealogie and memorable acts of the Earls of Holland, Zeeland, and west-Friseland, from Thierry of Aquitaine the first Earle, successiuey vnto Philip the third King of Spaine* (London: A. Islip and G. Eld, 1608), [B7v].

<sup>99</sup> Vladimir Janković, *Confronting the Climate: British Airs and the Making of Environmental Medicine* (Basingstoke: Palgrave Macmillan, 2010), 63-65, Hanway quotation at 64.

meanings. As the archaeologist Ian Gilligan has recently argued, we must ‘insist on making a distinction between clothing and its social roles in history, which are better subsumed under the terms “dress” or “costume.”’<sup>100</sup> Clothing is one important interface between the body and the world around it; when considering the lived environment, the properties of materials that are clothing the person are of as much if not more importance than the meanings of the clothes they are made into.

Fine gradations of wealth influenced the kinds of clothing that could be afforded, and by extension the experience of the changing seasons. In their study of 8,600 probate accounts between 1570 and 1700, Margaret Spufford and Susan Mee established that the children of husbandmen were likely to have clothes made of light and heavy wools, being fit for both summer and winter, whereas labourers’ children had single-season clothes of heavy wool only. Furthermore, they found no gloves or mittens in the probate accounts of the poorest labourers, leading them to the stark conclusion that ‘presumably children below this economic level had to put up with cold hands.’<sup>101</sup> In late eighteenth-century London, the poorest entrants to St Marylebone’s workhouse in Paddington were recorded as being admitted dressed in rags – thirty per cent of women and twenty-one per cent of men.<sup>102</sup> For such people, the axiom that there is no such thing as bad weather, only unsuitable clothing, must have rung uncomfortably true.

But for some commentators material deprivation such as this was a positive. A degree of discomfort and hardship was considered prudent for promoting health. The authors of *Holinshed’s Chronicles* bemoaned the increased quality of English housing stock, with its chimneys and oak frames which supposedly molycoddled inhabitants by sheltering them from smoke and the seasons: ‘when our houses were builded of willow, then had we oken men; now that our houses are come to be made of oke, our men are... become willow’.<sup>103</sup> John Locke urged parents to keep their children in a state of mild privation to improve their health. He looked to the clothing of the poor and recommended children be exposed to the cold in winter and ‘be not too *warmly Clad or Covered*’. Gentlemen ‘should use their Children, as the honest Farmers and substantial Yeomen do theirs’, lest their constitutions be ‘spoiled’ by ‘*Cockering and Tenderness*’.<sup>104</sup> Surrounding oneself with the trappings of poverty was a choice that the likes of Locke could recommend and selectively exercise. Poor housing, poor ventilation and poor clothing were the lot of many who could not choose otherwise, and whose concern was with the prevention of illness rather than the promotion of health.

A focus on the ‘material’ in material culture should not, however, serve to dismiss the vital importance of that culture for the early modern poor. As Steve Hindle has shown, clothing provided by overseers and charitable foundations did the cultural work of social distinction,

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<sup>100</sup> Ian Gilligan, *Climate, Clothing, and Agriculture in Prehistory: Linking Evidence, Causes, and Effects* (Cambridge: Cambridge University Press, 2019), 227.

<sup>101</sup> Margaret Spufford and Susan Mee, *The Clothing of the Common Sort, 1570-1700* (Oxford: Oxford University Press, 2017), 104, 99-100

<sup>102</sup> John Styles, *The Dress of the People: Everyday Fashion in Eighteenth-century England* (New Haven: Yale University Press, 2007), 65.

<sup>103</sup> Raphael Holinshed, *The first and second volumes of Chronicles* (London: Henry Denham, 1587),

<sup>104</sup> John Locke, *Some Thoughts Concerning Education* (London: A. and J. Churchill, 1693), 3-4.

marking the wearer out as a recipient of support and creating a sense of stigma and shame.<sup>105</sup> Where clothing could be afforded it was a source of pride and an opportunity for display, even among those at risk of requiring assistance. While practices of badging were required by law in England after 1697, at the same time parishes began to provide elements of ‘fashionable’ dress for recipients of relief, including buckled shoes and ‘mantuas’ (loosely draped gowns) for younger women.<sup>106</sup> After all, clothing was about more than warmth and covering, and poverty was experienced as more than a struggle to satisfy fundamental physical needs. An environmental approach to the bodily experience of the poor helps demonstrate the multivalent poverties early modern people experienced and negotiated. To wear the pauper’s coat was to be lifted out of one specific form of material poverty while being firmly placed within another cultural form.

## Conclusions

Environmental forces shaped the lives of early modern Europeans. The extent to which those forces could be mitigated or manipulated was frequently a function of wealth or poverty. Climate and extreme weather events rendered large numbers of people poor or poorer, punctuating the experience of poverty with moments of either acute scarcity or relative abundance. But to be poor was not to be simply buffeted about by the winds of history, like Poor Tom. The macro-environmental was always refracted through the micro-social. Landscapes and the social relations they were sown with conditioned the experience of large-scale climatic and weather events. Customary rights and other less well-defined tactics and strategies of habitat could provide some insulation from privation in hard times. That privation, when it came or where it was endemic, was registered on the bodies of the poor. While states and institutions made themselves felt through laws which branded, badged and corralled the poor, the constraints of the organic economy made their presence felt environmentally. Poor fuel and poorly vented housing marked the lungs of the poor. Living at close quarters aided disease transmission. The poor worked precariously in an economy of makeshift, often with cold hands and wet feet, a world where their protection was inadequate and the seasons bit harder.

These conclusions highlight the need for us to think with what Jason Moore has called the ‘double internality’ of ‘humanity-in-nature/nature-in-humanity’.<sup>107</sup> Poverty and inequality shaped and were shaped by their environments, and thus poverty was lived through a set of mutually interdependent environmental as well as social, cultural and economic experiences. Adopting an approach that draws on social and environmental history enriches our understanding of how early modern people lived their unequal environments. For environmental historians, the experiences of poverty highlight the need to avoid lumping together social groups and intersectional distinctions into aggregate ecological units, and to recognise that within a given socio-ecology there are fine gradations of environmental experience. And for social historians, the affordances of landscape and the exposure to weather

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<sup>105</sup> Steve Hindle, ‘Dependency, Shame and Belonging: Badging the Deserving Poor, c.1550–1750’, *Cultural and Social History* 1 (2004).

<sup>106</sup> Spufford and Mee, *The Clothing of the Common Sort*, 63

<sup>107</sup> Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015).

extremes, pollutants and disease demonstrate a need to pay keen attention to how people lived with their vibrant environments.

Environmental historians like to quote CS Lewis on the relationship between humanity and nature: ‘What we call Man's power over Nature turns out to be a power exercised by some men over other men with Nature as its instrument’.<sup>108</sup> This rings true for the history of poverty. From the planting of hedges to the banning of coal smoke in parts of London, interventions into the landscapes and environments of early modern England were motivated by cultural and social as much as agricultural and economic concerns. But the study of poverty also highlights that there is a necessary corollary to Lewis’ formulation: power exercised by some people over others also operates ecologically, through ‘nature’ itself. Social inequality creates unequal environments. The labouring poor most at risk from North Sea floods, or those receiving parish relief while gathered around unventilated, smoky fires, all experienced environmental inequalities that widened across the early modern period. In the age of the organic economy, there was nothing natural about poverty.

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<sup>108</sup> A Google Books search returns multiple examples, three of which are: Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (Cambridge: Cambridge University Press, 1985), 50; Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: University of North Carolina Press, 1995), 182; James D. Rice, *Nature and History in the Potomac Country: From Hunter-Gatherers to the Age of Jefferson* (Baltimore: Johns Hopkins University Press, 2009), 8.