



CHAPTER 6

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Learning from Arts and Humanities  
Approaches to Building Climate Resilience  
in the UK

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**Abstract**

- This chapter shares insights from five arts and humanities-led UK Climate Resilience Programme (UKCR) projects, presenting key learnings and pathways for future research and policy interventions.

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- We highlight the significant potential of place-based arts and humanities approaches for working with and engaging communities in building climate resilience and driving climate action.
- We underline the importance of generating genuine two-way dialogue, knowledge exchange and co-creation between academics, practitioners, and community members.
- We point to the importance of robustly and reflexively assessing the effectiveness of arts and humanities-led engagement.
- We argue that working collectively to develop more integrated climate and arts/cultural policy is imperative for supporting future long-term climate resilience.

**Keywords** Arts · Humanities · Community engagement · Climate resilience

## 1 INTRODUCTION

Over the last decade, a growing body of research has identified the effectiveness of arts and humanities approaches for connecting climate science with communities that stand to be most affected by climate change [1–3]. This links to a range of strategies that explore how audiences can be engaged with climate issues through creative, historical and place-based encounters [4–7]. However, the outcomes and opportunities for learning from arts and humanities-based research are not always well disseminated or valued by disciplines outside of arts and humanities circles [7–9]. This includes at national policy level where arts and humanities have exerted little influence over the ways in which climate change is framed

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within public discourse and climate policy—despite targeted recommendations for policymakers [9–11]. As a result, the benefits of mobilising arts and humanities approaches in order to build climate resilience remain underutilised by climate scientists and policymakers [11].

This chapter addresses these research and policy gaps, sharing key learnings from five arts and humanities-led UKCR projects. Here we provide an overview of the evolving academic and practice-based discussions that emerged during the lifespan of each project, and present reflections identified in a series of collaborative workshops with project teams in spring 2022 and subsequently through a paper session at the Royal Geographical Society Annual International Conference in August 2022 [12]. In doing so, this chapter will demonstrate the value of arts and humanities approaches for engaging communities with climate change impacts and action, and the importance of place and dialogue for building effective climate resilience. The projects are as follows:

- ‘Community climate resilience through folk pageantry’ (Creative Climate Resilience), led by Dr Jenna Ashton at the University of Manchester.
- ‘Risky Cities: Living with water in an uncertain future climate’ (Risky Cities) and the related UKCR impact project *On the Edge*, led by Professor Briony McDonagh at the University of Hull.
- ‘CLandage: Building climate resilience through community landscapes and cultural heritage’ (CLandage), led by Professor Neil Macdonald at the University of Liverpool.
- ‘Once upon a time in a heatwave’ (Once Upon a Time), an embedded researcher project led by Dr Alan Kennedy-Asser at the University of Bristol.
- ‘Time and Tide: Resilience, adaptation, art’ (Time and Tide), an embedded researcher project led by Professor Corinna Wagner at the University of Exeter.

What follows is divided into three sections. The first reflects on the importance of place-based approaches in driving awareness, action and resilience building, while the second explores issues around community dialogue. The third focuses on the impacts of these projects, including local and national policy outcomes. The final section summarises our key learnings and suggests directions for future enquiry.

## 2 IMPORTANCE OF PLACE

Central to all projects was a belief that place mattered and that place-based approaches help make climate impacts more tangible and relatable to members of the public—and so build a platform for engagement and action [7, 13]. Local stories and place-specific climate messages proved valuable for each of the UKCR projects in being able to transition from small-scale questions about community resilience to larger scale issues such as climate change, so that personal and community resilience was built through understanding past extremes in the local area. Importantly, several projects utilised the local as a lens through which to connect the past, present and future in productive ways to drive anticipatory action. Understanding historical relationships to place and environment proved important for facilitating engagement with generational and longer-term interactions that communities have had with their environment. This helped to generate a sense of identity and environmental continuity that was conducive to positive climate action [14].

The UKCR projects variously harnessed place-based and historically informed approaches, using different geographical lenses and delivering project outcomes at varying geographical scales. ‘CLandage’ and ‘Risky Cities’ worked with archival material including maps, civic records, antiquarian histories, diaries and newspapers—for Cumbria, Staffordshire and the Outer Hebrides, and Hull and the East Riding of Yorkshire, respectively—to research experiences of living with climate, weather and flood for use in delivering local climate interventions. By contrast, ‘Creative Climate Resilience’ worked at a much smaller scale, focusing on the ward of Miles Platting and Newton Heath in Manchester, selected in part because of its high socioeconomic, health and political inequalities and conflicting development agendas. Working within an area defined by its political boundary offered insights into how local authority practices materialise at a micro level in ways that are distinct from city or regional scales. Investigating people’s perceptions, knowledge and experiences of ‘local’ place and neighbourhoods—distinctiveness, care, activity, networks, assets—proved vital for local participation and inclusion in underlining the complexity of community resilience, and what this offers for mitigation and adaptation strategies. In turn, explorations of folklore and mythological storytelling have helped transform the way place and landscape are perceived and imagined in Miles Platting and Newton Heath, folding nature and culture together and promoting a

personal connection to climate change that stimulates awareness, action and resilience.

Narratives connected to place are also important to the ‘Once Upon a Time’ and ‘Time and Tide’ projects. Memory and anecdote add personal stories to otherwise impersonal data. In ‘Once Upon a Time’, participants explored their relationship to place and how this intersected with climate-related experiences to generate individual stories. These often tied memories of weather extremes to dates, places, activities or senses, or explored a theme in the past, present and future. The insights were then brought together to produce compelling narratives, as was the case for the ‘Future of the Northern Irish Countryside’, a story produced in collaboration with local storyteller Liz Weir. The creative act of storytelling provided an alternative way for the climate research community to explore place-based climate data at more intimate scales than is produced by climate risk modelling. The ‘Time and Tide’ project features large sculptural bells that ring at high tide, installed at sites around the British coast from the Isle of Lewis to Cornwall (Fig. 1). The bells were catalysts for sharing memories about climate change in coastal communities, with each bell a centrepiece for conversations amongst local grassroots groups, educators, regional conservation groups and arts hubs. Participants designed and implemented activities ranging from beach schools to ‘TEDx’-style panels with the aim of translating place-based stories into plans of action on climate change. As a result, members of citizen science groups have collaborated with academics and contributed to scientific findings while the Friends of Par Beach and school groups in Harwich, Essex have cleaned beaches.

### 3 GENERATING DIALOGUE

All the projects went beyond addressing specific knowledge deficits or one-way communication, working instead to foster two-way dialogue, knowledge exchange and co-creation between academics, practitioners and community members. They all centre on equity and social justice concerns, working to ensure that communities have agency over the knowledge that they are part of producing and that it is used in ways that are beneficial to them. This was especially important in working with communities whose past experiences may have been of research being ‘done on’ rather than ‘with’ them.



**Fig. 1** Appledore Time and Tide Bell. Artist: Marcus Vergette (*Photograph* Corinna Wagner, 2021)

Arts and humanities-based approaches offer unique opportunities to facilitate dialogue creation. Creative workshops offer an approachable way for communities to engage in academic research. At the same time, creative practices, especially handwork (such as sewing, knitting and crafting), can offer space for difficult conversations about sea level rise, coastal erosion and loss, particularly when they draw upon place-based and historically informed stories, which make big stories of global change more relevant and legible at the local scale. For ‘Risky Cities’ and ‘CLandage’, intensive programmes of archival recovery [15, 16] fed into creative workshops, offering opportunities for participants to work with archival materials, maps and material objects while sharing their experiences of weather, climate and flood. ‘Risky Cities’ recovered an 800-year history of living with water and flood in Hull and the surrounding region, using these resources to inform a series of place-based, historically informed arts events (see the discussion of FloodLights below) and a community engagement programme involving textile and creative writing

workshops, a soundscape and a touring exhibition. ‘CLandage’ developed workshops and exhibitions that used cultural heritage materials from Staffordshire and the Outer Hebrides to generate dialogue around climate and extreme weather; for example, the project utilising qualitative records of past weather as a prompt for participants to write about their own memories, or to reinterpret the original source material coloured by their own experiences and understanding of the local environment.

In both projects, participants’ experiences fed into the research process, culminating in co-created outputs including poetry, [17] creative writing, craft and storytelling that were used in digital and in-person exhibitions curated by and displayed within the communities concerned. Each exhibition also facilitated discussion around climate change between workshop participants and their family and friends. Similarly, with the ‘Time and Tide’ initiative, local oral histories collected at bell sites (e.g. Morecambe in Lancashire, Redcar in North Yorkshire and Harwich in Essex) were the starting point for multi-artist exhibitions and creative writing publications. Oral histories revealed much about the decline of coastal industries, land erosion and flooding, but also provided insights into the language, images and cultural references that people use to express their feelings and plans. Age-old narratives of ‘The Flood<sup>1</sup>’ formed the basis of performances by Cornwall-based theatre group Prodigal UPG (<https://prodigalupg.com>), while video responses to the question “What does the sea mean to you?” were reproduced in the film COTIDAL (<https://timeandtidebell.org/cotidal-new/>), by artist Tania Kovats.

‘Once Upon a Time’ also used a simple question to generate dialogue: “What is your favourite thing about the countryside?”. Participants were then able to use this prompt to explore their own experiences of place and climate change. ‘Creative Climate Resilience’ utilised a related but distinct model of socially engaged practice through arts-based research, generating stories, images, performances, music and creative objects (Fig. 2) in order to encourage residents, local authority members, environmental charities, religious organisations, community developers, youth workers and schools to participate in creatively articulating perspectives and solutions for climate mitigation and adaptation issues—and thus feed into local climate action plans. As one contributor to this chapter eloquently

<sup>1</sup> The use of ‘The Flood’ refers to stories of flooding or deluge often attributed to deity or deities, sent to destroy civilisations or punish the wicked, often in an act of divine retribution.

put it, “Researching through embedded engagement brings people with you on a journey of curiosity and knowledge creation, and ensures that both the academic research and creative outputs are genuine public scholarship”. Crucially, practice such as this demonstrates how creative research is joyful and playful, while also having serious implications for decision-making.

Similar experiences were reported in *On the Edge*, a collaborative project between the National Youth Theatre and the University of Hull, funded by a UKCR impact award. The 90-minute, co-created theatrical performance platformed young people’s experiences of living with climate change in coastal and estuarine communities on a global policy stage at the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow UK. It comprised a new play by Adeola Yemitan called *I Don’t Care*, and a climate cabaret directed by Tatty Hennessey including spoken word, poetry, music and magic. This rich and stimulating project



**Fig. 2** Creating objects for the ‘Creative Climate Resilience’ project (*Photograph* Jenna Ashton, 2021)



was characterised by intensive two-way dialogue between researchers and young creatives, facilitated via online development workshops and in-person rehearsals. Reflective journals kept by participants—including the academic researchers—chart the cognitive, bodily and emotional experiences of those involved in producing a piece of theatre that critiqued the barriers to climate action experienced by young people, and challenged collective expectations about young people’s experiences of the climate crisis.

#### 4 UNDERSTANDING COMMUNITY AND POLICY IMPACTS

Demonstrating the value of arts and humanities approaches to do more than simply ‘window dress’ climate science required each of the teams to robustly and reflexively assess the effectiveness of arts and humanities-led engagement to drive climate resilience. This demand was addressed in three ways. First, each of the projects worked to ensure measures for assessing effectiveness were developed in relation to the needs and existing resources within communities, rather than imposed upon them, even though the precise measures of success used varied across the projects. In the case of ‘Creative Climate Resilience’, effectiveness was understood as a scale where outcomes were identified by and with the participants. For some participants, that meant empowering them to join the conversation around climate action; for others it meant exploring how they could move from climate or political apathy to awareness and action. Effectiveness also included being able to provide new insights for decision-makers and developing new processes, content and storytelling that contributed to existing resilience activities and supported the community to thrive not just survive. These outcomes were then measured utilising an embedded process that identified the individual and organisational changes amongst those involved in the project, as well as the legacy projects that emerged from engaging in the research process.

At the same time, the project teams recognised that persuading policy audiences of the value of arts-based engagement in driving climate action—and thereby increasing the uptake of these approaches—is facilitated by being able to chart (and on occasion, quantify) our impacts. ‘The Risky Cities’ team, for example, analysed audience feedback from its programme of community arts interventions including ‘FloodLights’ (Fig. 3), a series of multimedia, light and sound installations exploring Hull’s experiences of living with water past, present and future, which

took place in Hull city centre in October 2021 and attracted an audience of more than 11,000. Survey responses demonstrate that the event drove shifts in people's thinking about living with water, flooding and climate change, with 64% of respondents reporting that the event made them think about climate futures, and a third reporting behavioural changes they planned to make in relation to this.<sup>2</sup> As the survey results make clear, place-based approaches—in particular, site-specific installations that mobilised Hull's watery histories and identities—were crucial in generating engagement and action towards climate resilience.

Finally, the UKCR projects discussed here each made direct policy interventions. 'Creative Climate Resilience' centred their approach around the co-design of an open access toolkit for different interest groups to be able to undertake their own climate action planning. This was embedded across a wider spectrum of knowledge exchange with local authority actors—including neighbourhood teams, climate officers, elected members, community groups and scrutiny committees—that all fed into the local climate action plan. This was also a reflexive process, documenting policy engagement as the project progressed and sharing processes and findings. Similarly, 'Risky Cities' targeted a range of local and national policy audiences to shape best practice for resilience building through arts and humanities. This included hosting a climate resilience workshop for local stakeholders; developing a policy brief shared with MPs across Hull and the local council; contributing to flood risk policy (e.g. Hull City Council's Local Flood Risk Management Strategy for 2022–2028, POSTNOTE 647 on Coastal Management [11, 18, 19]; and tabled amendments to the Levelling Up Bill by Hull MP, Emma Hardy); and contributing to cultural policy (e.g. responses to the Department for Digital, Culture, Media and Sport inquiry on culture, place-making and the levelling up agenda) [20].

## 5 CONCLUSIONS

In conclusion, we highlight three key learnings and two directions for future research and policy interventions and, in doing so, advocate for a specifically arts and humanities approach to climate resilience that centres

<sup>2</sup> Based on 457 survey responses.



**Fig. 3** Audience members enjoying the Sinuous City installation, part of the FloodLights event in Hull (*Photograph* Briony McDonagh, 2021)

on people and their experiences and helps us to rethink what resilience means at the local, community scale.

First, the projects collectively underline the significant potential of place-based, arts and humanities approaches—including those drawing on learning histories—to raise awareness, drive climate action and build climate resilience. These approaches make complex scientific ideas meaningful and big global narratives tangible at the local level, supporting people to understand what complex climate futures might mean for them. Second, we highlight the importance of generating genuine dialogue and co-creation, rather than one-way communication about climate futures. The projects here exemplify varying approaches and possibilities, but all sought to grant community stakeholders and policymakers the agency and urgency through which to act and inform future resilience building strategies. Third, all the projects stress the importance and the difficulties of assessing the ‘effectiveness’ of arts and humanities-led approaches. They push us to think about what successful engagement means, while also recognising that measurable outcomes—whether expressed qualitatively or quantitatively—are important in persuading others about the value of arts and humanities-led approaches for climate resilience.

Relatedly, our research and policy engagements have also identified important knowledge gaps which must be addressed if the full impacts of arts and humanities-led climate interventions are to be realised. As all the UKCR arts and humanities-led projects show, future long-term resilience plans need to respond effectively to the local cultural and place-specific impacts of climate change. Working collectively to develop more integrated climate and arts policy is, therefore, imperative in supporting this. At the same time, current national cultural policy prioritises the economic value of arts and heritage events [21]. Future policy needs to go beyond this and recognise both intangible benefits of arts engagement *and* its importance for addressing climate concerns and building resilience [22]. We look forward to working collectively with policymakers, climate scientists, community stakeholders and other actors in embracing these challenges.

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## REFERENCES

1. Moser, S. 2019. Not for the faint of heart: Task of climate change communication in the context of societal transformation. In Feola, G., Geoghegan, H. and Arnall, A. (Eds.). *Climate and Culture: Multidisciplinary Perspectives of Knowing, Being and Doing in a Climate Change World*. Cambridge University Press, Cambridge, pp. 141–168.
2. Moser, S. 2016. Reflections on climate change communication research and practice in the second decade of the 21<sup>st</sup> century: what more is there to say? *WIREs Climate Change* 7, pp. 345–369.
3. Hulme, M. 2011. Meet the humanities. *Nature Climate Change* 1, pp. 177–179.
4. Scott-Bottoms, S. and Roe, M. 2020 Who is a hydrocitizen? The use of dialogic arts methods as a research tool with water professionals in West Yorkshire, UK. *Local Environment*, pp. 1–17.
5. Rice, R., Rebich-Hespanha, S. and Zhu, H. 2019. Communicating about Climate Change Through Art and Science. In Pinto, J., Gutsche, R. and Prado, P. (Eds.), *Climate Change, Media and Culture: Critical Issues in Global Environmental Communication*. Emerald Publishing Limited, Bingley, pp. 129–154.
6. Burke, M., Ockwell, D. and Whitmarsh, L. 2018. Participatory arts and affective engagement with climate change: The missing link in achieving climate compatible behaviour change?. *Global Environmental Change* 49, pp. 95–105.
7. Corbett, J. and Clark, B. 2017. The arts and humanities in climate change engagement. In von Storch, H. (Ed.). *Oxford Research Encyclopaedia of Climate Science*. Oxford University Press, New York, pp. 1–17.
8. Honeybun-Arnolda, E. and Obermesiter, N. 2019. A Climate for Change: Millennials, Science and the Humanities. *Environmental Communication* 13(1), pp. 1–8.
9. Blue, G. 2016 Framing Climate Change for Public Deliberation: What Role for Interpretative Social Sciences and Humanities?. *Journal of Environmental Policy and Planning* 18(1) pp. 67–84.

10. Clark, K. 2021. Policy Review: Valuing Culture and Heritage Capital: A Framework Towards Informing Decision Making. *The Historic Environment: Policy and Practice*, **12**(2), pp. 252–258.
11. Julies Bicycle. 2021. Culture: The Missing Link to Climate Action. [Online] Available at: <https://juliesbicycle.com/policyportal/internationalpolicy>.
12. Session title: Understanding Climate Resilience through the Arts and Humanities. Contributors included: Neil Macdonald, Alice Harvey-Fishenden, Briony McDonagh, Kate Smith, Edward Brookes, Jenna Ashton and Simon Naylor
13. Marschütz, B., Bremer, S., Runhaar, H., Hegger, D., Mees, H., Vervoort, J. and Wardekker, A. (2020). Local narratives of change as an entry point for building urban climate resilience. *Climate Risk Management* **28**, pp. 1–15.
14. Lee, K. 2021 Urban public space as a didactic platform: Raising awareness of climate change through experience arts. *Sustainability* **13**(5), pp. 2915.
15. Naylor, S., Macdonald, N., Bowen, J. and Endfield G. 2022. Extreme weather, school logbooks and social vulnerability: The Outer Hebrides, Scotland, in the late nineteenth and early twentieth centuries. *Journal of Historical Geography* **78**, pp. 84–94.
16. McDonagh, B., Mottram, S., Worthen, H., and Buxton-Hill, S. (in review) ‘Living with water and flood in medieval and early modern Hull’.
17. Wardle Woodend, M., Harvey-Fishenden, A. and Macdonald, N. 2022. Flood and Drought Poetry: Experiences of Weather Extremes in Staffordshire. Staffordshire: Dreamwell Writing Limited. [Online] Available at: <http://www.dreamwellwriting.simplesite.com/>.
18. Hull City Council. 2022. Local Flood Risk Management Strategy 2022–2028, *Hull City Council*, UK. [Online] Available at: [https://www.hull.gov.uk/sites/hull/files/media/Editor%20-%20Planning/Appendix\\_1\\_-\\_Legislative\\_and\\_policy\\_context.pdf](https://www.hull.gov.uk/sites/hull/files/media/Editor%20-%20Planning/Appendix_1_-_Legislative_and_policy_context.pdf).
19. UK Parliament POST. 2021. *Coastal Management*. [Online] Available at: <https://post.parliament.uk/research-briefings/post-pn-0647/>.
20. Smith, K., McDonagh, B., Brookes, E. and Pilmer, L. 2022. Reimagining where we live: cultural placemaking and the levelling up agenda. Department for Digital, Culture, Media & Sport (DCMS) Call for Evidence.
21. Lawton, R., Fujiwara, D., Arber, M., Maguire., H, Malde, J., O’Donovan, P., Lyons, A. and Atkinson, G. 2020 Department for Digital, Culture, Media & Sport (DCMS) Rapid Evidence Assessment: Culture and Heritage Valuation Studies - Technical Report, *Department for Digital, Culture, Media and Sport*, UK. [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/955142/REA\\_culture\\_heritage\\_value\\_Simetrica.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/955142/REA_culture_heritage_value_Simetrica.pdf).

22. Clark, K. 2021. Policy Review: Valuing Culture and Heritage Capital: A Framework Towards Informing Decision Making. *The Historic Environment: Policy and Practice*, 12(2), pp. 252–258.

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