Looking back to move forwards: a social and cultural history of heating in Europe

A summary of key findings across the UK, Romania, Sweden, Finland

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Background

The need to transition to low carbon modes of home heating is urgent. But heating transitions are nothing new, and learning from how they have been approached in the past can help to ensure a more sensitive, fair, and effective shift away from fossil fuelled heating. That is the purpose of Justheat. If the transition away from fossil fuelled heating is to happen with the consent of communities, it needs to respond to what they need, want, and expect from their home heating systems.

Over the last seventy years, most European countries have undergone one or more transitions in home heating provision: moving first away from burning solid fuels and towards communal or individual central heating systems, and now towards low carbon, mostly electric heating systems. Heating transitions are awash with personal, social, and cultural complexity but tend to be reduced to a purely technological and economic challenge. Justheat looks beyond these simple narratives of transition. Through 286 oral histories of keeping warm at home, gathered across four countries with contrasting heating pathways (the UK, Sweden, Finland and Romania), the project has developed new understandings of how heating transitions impact on everyday lives over time. The project reveals diverse experiences and outcomes associated with heating transitions (socially, relationally, culturally, financially), which vary between different places, social groups and households.

Helen at Vanbrugh 1978 © JustHeat UK Photograph Collection

Mary's coal fire in Rotherham, 2023 © JustHeat UK Photograph Collection

Justheat combines archival research (to document the heating pathways followed by each participating country since 1945); oral histories (to capture rich insights into lived experience of heating change); art methods (producing artwork that responds to the lived experience captured); and policy analysis (to distil lessons for the current low carbon heating transition).

Our research reveals quite different longer-term outcomes associated with the different heating pathways pursued in each country, underlining the long-lasting consequences of heating change. This reminds us how decisions made now about our heating futures will have ramifications for decades. We are using the detailed personal testimonies gathered through the oral histories to help put professional stakeholders shaping and driving low carbon heating transitions in touch with the diverse ways they impact our everyday lives. We are also working to make decision makers aware of what our research reveals about what we need, want, and expect from our home heating systems.

A note about this report

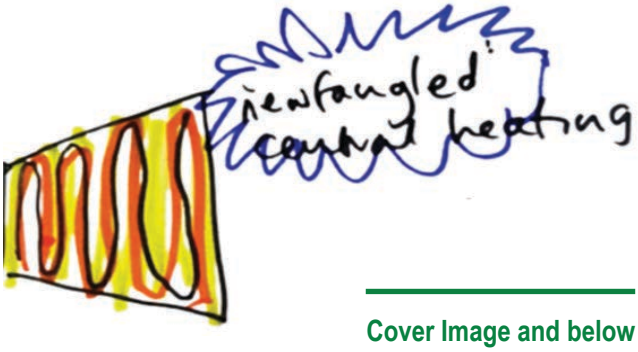
This short report builds on our interim report, published in 2023:

Ambrose, A., Davies, K., Shaw, B., Shahzad, S., Jiglau, G., Vornicu, A., ... Aho, H. (2023). Interim report of the JUSTHEAT project: a social and cultural history of home heating. Sheffield Hallam University, Centre for Regional Economic

and Social Research. http://doi.org/10.7190/cresr.2023.8293971428

It provides an overview of cross cutting findings that have emerged across the four countries, based on analysis conducted at the conclusion of the data collection phase of the project (completed September 2024). More detailed explorations of the findings from all aspects of the project and presentation of the supporting empirical evidence will follow in Spring 2025.

Our intention in producing this mini-report is to help ensure that our findings are considered in public discourse, policy development, relevant fields of practice, and academic scholarship, without delay.



Cover Image and below
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Key findings from across the four countries

Bricolage/stacking of heat sources

Having multiple forms of heating and sources of heat (i.e. central heating, a solid fuel burner, electric heaters) creates a sense of resilience to uncertainty that has enabled survival over time. For example: being able to plug in an electric heater and heat one room, rather than the whole house (UK), or having a stove to burn things in, including furniture and clothes, when district heating fails or is decommissioned (Romania).

Across the countries, we found that households value adding to the range of possible ways to heat and do not want to lose access to familiar sources. The transition is seen to take away options and participants wonder whether it is safe to let go of familiar ways of heating, especially at a time of energy crisis.

A 'clean sweep' where the mode of heating is completely changed, is only likely to be compelling if it represents a significant improvement on what went before in experiential (rather than purely rational economic) terms. Joyous experiences of underfloor heating in Sweden exemplify this.

Jane's electric radiator kept her warm throughout university in the 1980s. She has carried it with her ever since. © JustHeat UK Photograph Collection

Thermal delight

In more privileged settings, having a variety of ways to heat supports the enactment of cultures (whether indigenous or borrowed) and enables pleasurable experiences that promote a sense of wellbeing. For example, using a wood burner to create a cosy feeling, cooking recipes traditionally cooked on wood, or using a wood fired sauna. Burning wood for pleasure is widely identified amongst those we spoke to in Sweden, Finland, and the UK (mainly amongst middle class participants). In rural Romania it is an absolute necessity, but still treasured.

The prospect of even warmth throughout the home is unattractive to many we speak to. This is because thermal delight (deriving joy from warming the body) is achieved by going from the cold to intense warmth (i.e. coming in from the outside to the intense heat of a fire; moving from a warm fireside to a cool bedroom).

Many are unsure about how the heat from a heat pump would feel. One participant suggested that a showroom, like the sort that were set up to help households experience the transition to natural gas in the UK (1960s/70s), would help households to imagine life with a heat pump.

Fueliverses

Former mining communities (UK, Romania) describe a ‘fueliverse’ where coal was central to all aspects of life. It was a source of pride as well as risk. There is a sense that quality of life has declined since mining stopped. In Romania, heating has been deeply insecure ever since. In the UK, vulnerability to energy poverty has accompanied the move to gas central heating from a free coal allowance in former mining communities. Wood remains the primary fuel for many rural communities (Romania, Finland) and climate policy is perceived to threaten a way of life based around it.

Participants from areas traditionally dependent on coal feel they have endured too much transition. The Romanian mining communities studied have gone from coal to district heating, to muddling through with whatever is available in the space of 35 years. In Rotherham, South Yorkshire the gas transition feels like a recent event because it came to them later than most. The prospect of a low carbon transition feels hard to comprehend, awareness of the need for it is low and trust in governance (local level through to Europe) is also low.

Maltby town sign featuring a miner wearing a headlamp and carrying a pick, Rotherham, 2024 © JustHeat UK Photograph Collection

The eras of coal and wood are romanticised because they represent a time when participants were younger and more optimistic, and when local industry and the communities formed around them cared for you. We see this to some extent across all four countries.

Participants in Sweden and Finland acknowledge though, that there is a big difference between chopping wood out of necessity and doing so more occasionally for pleasure, with the former being dangerous and exhausting.

© Jenny von Platten, ‘The colour of heating was red’ in Sweden (2024)

Affordability does not assure thermal comfort

Despite general satisfaction with district heating systems in urban Sweden, particularly under the ‘warm rent’ approach (where heating costs are included in the rent), there is a sense of lack of control over thermal comfort (the heating is activated on a specific date). This is especially the case when they do not have an individual thermostat in the home. Thermal comfort is not assured, even where affordability is not an issue.

Environmental motivations for heating change

In Sweden there is a general sense that environmental concerns are a motivation for heating change. Concerns about being perceived as an ‘environmental criminal’ if you continue to burn wood were also evident in Finland. This is not the case in the UK and Romania. In the Romanian case studies however, households that switched to renewables (often reluctantly) feel satisfied. Memories of past

energy insecurity can, in some cases, encourage change.

In the UK, we found a relatively small contingent of wealthier households in the vanguard of heating transitions. They did not usually have a difficult heating history and pursued renewables due to their deep green position. Some participants adopting a green identity in the UK display contradictory behaviour – burning wood is often presented as a 'guilty pleasure'.

High electricity prices in the UK, Finland and Romania further disincentivise transition unless Photo Voltaic (solar) is available and affordable (powering electric heating systems at low or no cost). The appetite for transition amongst our diverse sample of participants is generally low.

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Asynchronous 'progress'

Participants' sense of progress in relation to heating arrangements is non-linear. In the UK, moving house can move you back or forward in time with regards to heating arrangements. Mining communities in Romania have been forced to resort to primitive methods such as makeshift stoves when district heating broke down or was decommissioned. Only the wood burning communities of Romania remained relatively static, maintaining the same arrangements seemingly for centuries. The transition to renewables, therefore, represents a huge jump forward in technology and in time.

Also in this vein, households in urban Finland increasingly remove themselves from apparently progressive district heating arrangements in a bid to take back control. Similarly, urban households in Romania cling staunchly to their individual gas boilers to maintain control over their heating following decades of energy deprivation under the communist regime.

Key messages for those working on and shaping heating transitions

1. Heating transitions need to be led locally: Heating transitions must be led locally to ensure they work for the place where they are happening, taking account of relevant local histories and cultures to gain community consent. Former coal field communities, for example, may have complex feelings about transition and this needs to be approached sensitively.
2. Left behind communities need to be prioritised: Communities that were excluded from the last transition (when we moved from solid fuel to gas) should be prioritised in the low carbon transition. For example, many off grid communities risk being stranded on increasingly expensive fossil fuels if we do not recognise them as a priority. The transition is a great opportunity for them.
3. Talk about what heating transitions can bring, not what they will take away: We seek the most joyous route to warming our bodies. This is one of the reasons why log burners are so popular. The language used around low carbon transitions emphasises efficiency and cutting back. Low carbon heat sources have the potential however, to allow us to heat homes more abundantly, unlocking 'thermal delight'.

© Becky Shaw, 'The Future', a sketch in response to oral histories that recall the postwar transition to gas.