

**How were past heating transitions experienced and what can they tell us about making low carbon heating a success?**

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How were past heating transitions experienced and what can they tell us about making low carbon heating a success?

Aimee Ambrose, Kathy Davies, Becky Shaw

*JUSTHEAT: a project looking back to move forward*

The way we heat our homes needs to change fast, if we are to stand any chance of achieving net zero. The JUSTHEAT team, which spans four countries (the UK, Sweden, Finland and Romania) and many different disciplines, are capturing diverse social and cultural histories of home heating, as the end of fossil fuelled heating looms. Here we share emerging findings from coalfield communities in the UK and some emerging lessons for the transition to low carbon domestic heating.

This blog focuses on findings and lessons from the UK context. Findings and analysis from across the four countries can be found in our interim report: [Looking back to move forwards: A social and cultural history of home heating \(JUSTHEAT\) | Sheffield Hallam University \(shu.ac.uk\)](#)

JUSTHEAT explores how home heating shapes our lives in diverse and far-reaching ways, beyond the practical. Using oral history interviews, participants share memories of how home heating has changed throughout their lives and how those changes have impacted them.

No challenge is entirely without precedent and by learning from past heating transitions, we can help make the transition to low carbon domestic heating more inclusive.

*Heating transition in a coal mining community*

The first UK case study location was Rotherham, South Yorkshire, chosen for its strong ties with fossil fuels through coal mining. It also has above national average use of gas central heating (GCH) systems, as dependency on GCH slowly falls countrywide.

Participants were aged between the 50s and 80s and the 34 oral histories gathered capture detailed memories of keeping warm at home from the 1940s to the present day. They reveal the dominance of the coal fire in the home between the 1940s and the 1970s and how the transition to GCH came late and was not entirely welcomed. Some participants bring their accounts up to date, discussing air source heat pumps or their fears about having to lose the perceived comfort and convenience of GCH.

*The coal fire was at the centre of domestic life*

The oral histories established the coal fire (whether an open fire or a range) as the epicentre of the home in Rotherham from the 1940s to the 1960s. It was relied upon for heat, hot water and cooking and daily life revolved around it.

Recognition of the fireplace as a 'focal point' which facilitated social and emotional connections between household members were pervasive, although the labour and grime of maintaining the fire (which often fell to women) and the discomfort of cold beyond the fire, were acknowledged.

Coal fires were remembered as facilitating companionship, family togetherness and sitting watching them brought a meditational quality. The fireside was remembered fondly, particularly by those who experienced them as children (most participants) and were shielded from the labour of maintaining fires.

Memories of the coal fire were where participants went to first in their recollections and lingered the longest. As they moved into more recent eras of heating, recollections became less clear and precise and evoked far less enthusiasm.



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### *Uneven access to affordable warmth*

Access to the espoused benefits of a roaring coal fire were recalled as being uneven across the community, with unequal access to fuel (coal) between those working as miners (who received free coal) and those in other industries (i.e. steel production), who did not. As a result, coal was shared with family and friends and an informal economy of selling on surplus coal between households was established.

The free coal allowance for miners (until the 1990s for some) disincentivised transitions to GCH. Many households in our case study moved to GCH 20 to 30 years later than most and some have still not made this change. GCH had taken some adjusting to, because it does not offer the same intensity of heat. It can also be difficult to know how much is being burnt, leading to worries over cost, especially in households previously receiving free coal.



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### *A gradual and reluctant transition away from coal*

Participants born in the 1940's and 50's recalled little change to the way homes were heated between their generation and that of grandparents. Homes then modernised rapidly from the 1960s with an explosion of affordable domestic innovations entering the home (e.g., plug in heaters, gas fires, electric blankets). As a result, the fire was lit less and less. But the majority of participants were wistful about the era of the coal fire and

many took every opportunity to recreate the experience by installing log burners or simply having a bonfire.



Christmas by the fire, Rotherham (1987). Copyright: JUSTHEAT photo collection, 2023.

### *Lessons for the current transition*

The oral histories generate lessons for those designing transitions to low carbon heating, from a social and cultural perspective:

*Recognise the social and cultural significance of heat:* heating systems deliver more than just warmth- they are also bound up with comfort, joy, social relations, cultural participation and place identity and attachment (particularly in areas with close ties to fossil fuels). Can we design heating technology that people don't just accept but that they love, as many love their log burner or miss the coal fire? Remember that access to past heating transitions has not been even – some communities are relatively new to GCH and will need more convincing to change again.

*Control and sense of agency matter to households.* Participants missed the control they had over their fuel spending in the era of solid fuels. Can we build a greater sense of tangibility into increasingly abstracted technology and systems?

*Upgrade the language around heating transitions:* transition imposed from the 'top down' is more likely to be resented and resisted. Language matters. Place less emphasis on necessity and efficiency and more on the potential to thrive through transition, and attain thermal pleasure and cost savings through insulation and low carbon heat sources.

