

Fair(ly) Warm: A tale of three homes

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Fair(ly) warm: a tale of three homes

Aimee Ambrose
Professor of Energy Policy



Justheat photo archive.

“Its significance as a source of wellbeing, comfort, aesthetic experience, nostalgia, identity and sense of place is underestimated” (Ong, 2012).

“Accounts of how high- level energy policies and technological change play out in daily life are more than peripheral to the serious business of energy policy”(Darby, 2017).

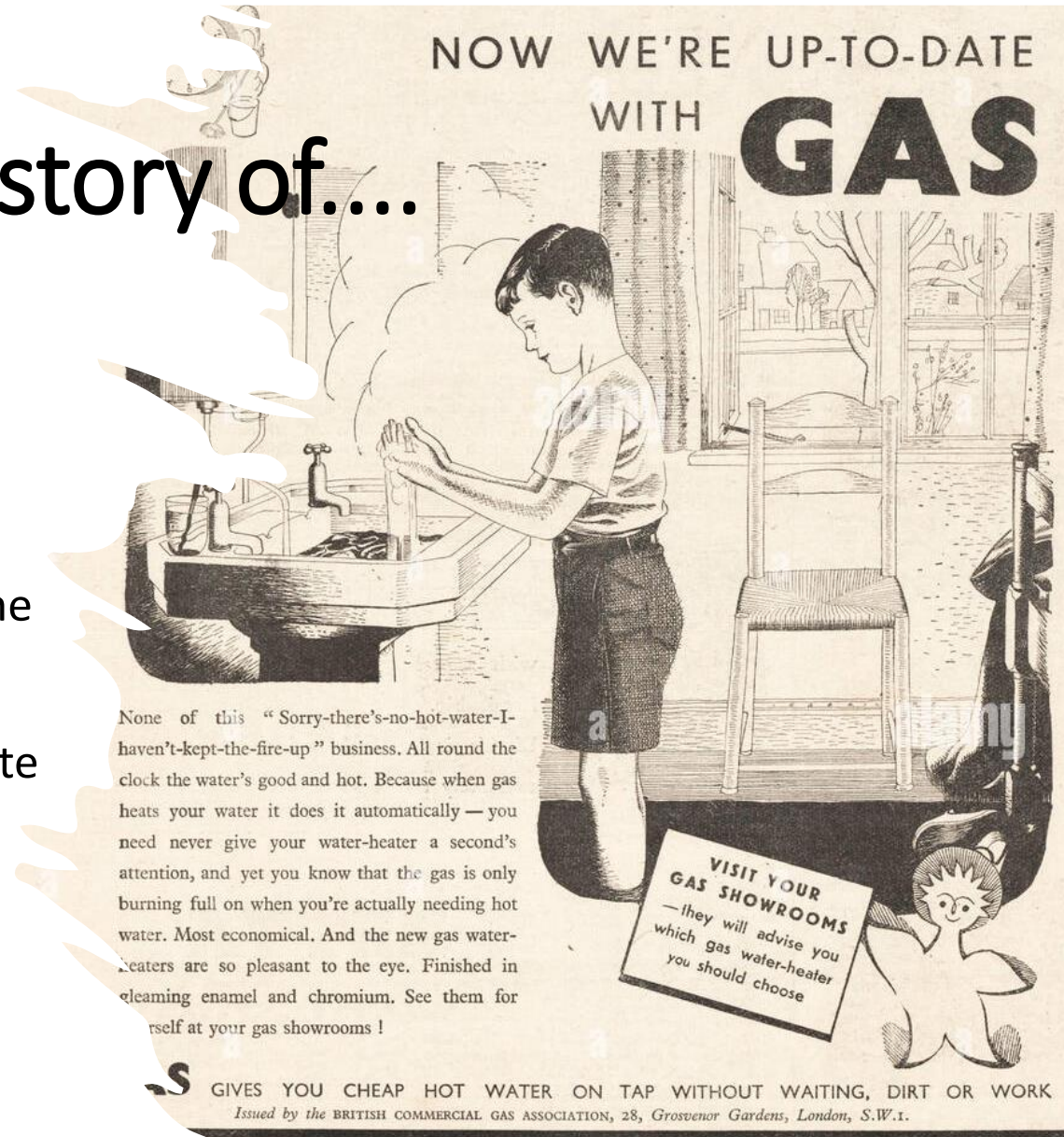


Justheat photo archive.

(Urban) heating (UK): a story of....

- environmentally motivated change
- change is not neat, but messy
- social, cultural, relational and political entanglements with fuels, technologies and home
- how no policy challenge is unprecedented
- how to make policy fairer, more humane, less elite

A story that's more relevant than ever...



Overview

Context

- Evolving research interests and drivers

Let's go inside....

- The coal powered home (Justheat)
- The home of intangible heat (Walking with Energy)
- The 'eco-home' (Inside the Eco-Home)

Where does this leave us?

- Learning

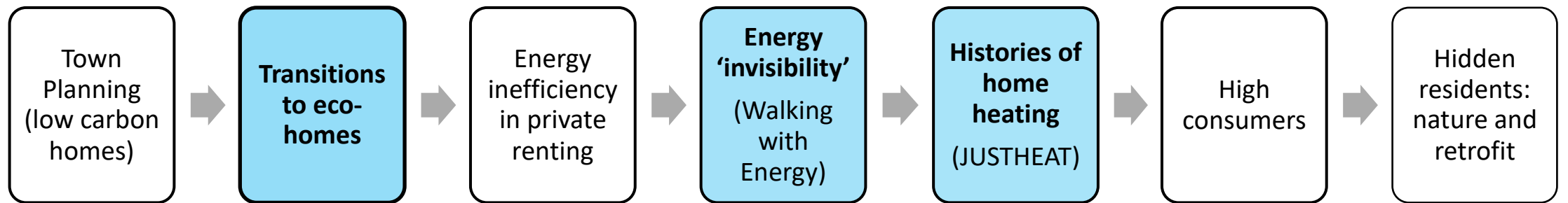
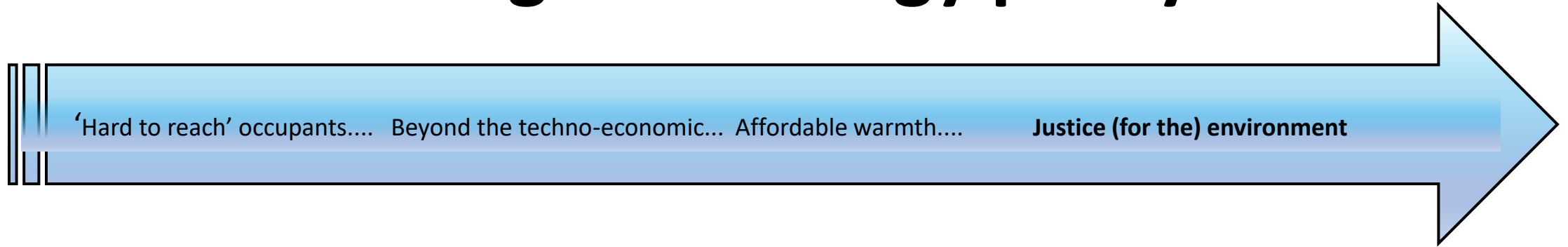
Final thoughts...

- Women professors.



Copyright: Becky Shaw

Living with energy policy



Collaborations

Project	Team		Funder
Inside the eco- home 2008-2014	Prof Barry Goodchild Prof Fin O’Flaherty		ESRC (UK)
Walking with Energy 2018-2021	Prof Jenny Palm Dr Steve Parkes Prof Will Eadson Prof Richard Bull Dr Beth Speake		Swedish Energy Agency
JUSTHEAT: a social and cultural history of heating 2022-2025	Prof Becky Shaw <u>Dr Kathy Davies</u> Dr Sally Shahzad Prof Jenny Palm Dr Jenny von Platten Dr Ram Krishna Dr George Jiglau Dr Andreea Vornicu	Dr Anca Sinea Denise Lobont Prof Sofie Pelsmakers Dr Sarah Kilpeläinen Dr Raul Castano del Rosa Henna Aho Jenny Willis	CHANSE (AHRC, Horizon Europe)



Home of the hearth

- Coal dominant mid C19th to 1950s.
- JUSTHEAT: a social and cultural history of heating
- Oral history: learning from the past for a fairer future
- UK case study: Rotherham
- Coal was King: last pit closed in 2013 (Maltby)
- Participants grew up between the late 1940s and 70s
- Mostly mining families – coal was everything

Home of the hearth

- The era of the coal fire indelible.
- Sensory intensity, joy, relationality
- But also dirt, toil and lack of privacy.
- Mostly abundance but also hardship
- Memories of later eras vague, less effusive.



Source: Pinterest.de



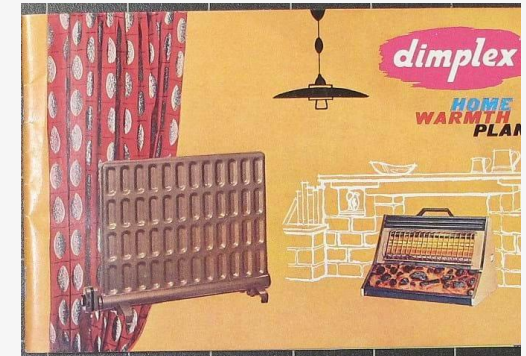
“The inefficiency didn’t seem to matter. The idea of the fire, it’s importance as the focus and *symbol of the home*, surmounted its drawbacks.”
(Flanders, 2003)

Home of the hearth

- Heating regime largely unchanged from the C19th
- 100 years without significant heating change.
- Post war: deeper attachment, symbolism and nationalism.
- British households rejected closed stoves, steam heating
- Through killer smogs and smoke abatement (from 1882)
- Parallels with the current transition and inaction on GHGs.
- Some activities have significance beyond the practical.

“Now we’re cooking on gas”

- Change came in 1956 - Clean Air Act
- Change takes time (70+ years)
- Dominance of the coal fire waning anyway
- Natural gas discovered (1965)
- Sir Ken Hutchinson and some marketers
- 20 million appliances substituted/ made ready for gas between 1967 and 1977
- Not necessarily popular but imposed (and funded)
- Women co-opted to market the change
- 67% reduction in particle pollution after 10 years (London)



A kiss for a gas cook !



The home of intangible heat

- 95% of homes GCH at peak in 2005, 74% now
- Volatile pricing, huge inequality
- Bad enough for us to want to change?
- Invisible impact (but 38% of emissions)
- Private benefits have to be compelling
- We seek joyful and pleasurable routes to thermal comfort
- 'Thermal delight' matters (Heschong, 1979)



Justheat photo archive. Log burner in Sweden.

Energy prices per kWh (UK): Electricity: 28.6p/kWh and Gas: 7.4p/kWh. Heating using electricity is ~£350 more per year versus gas.

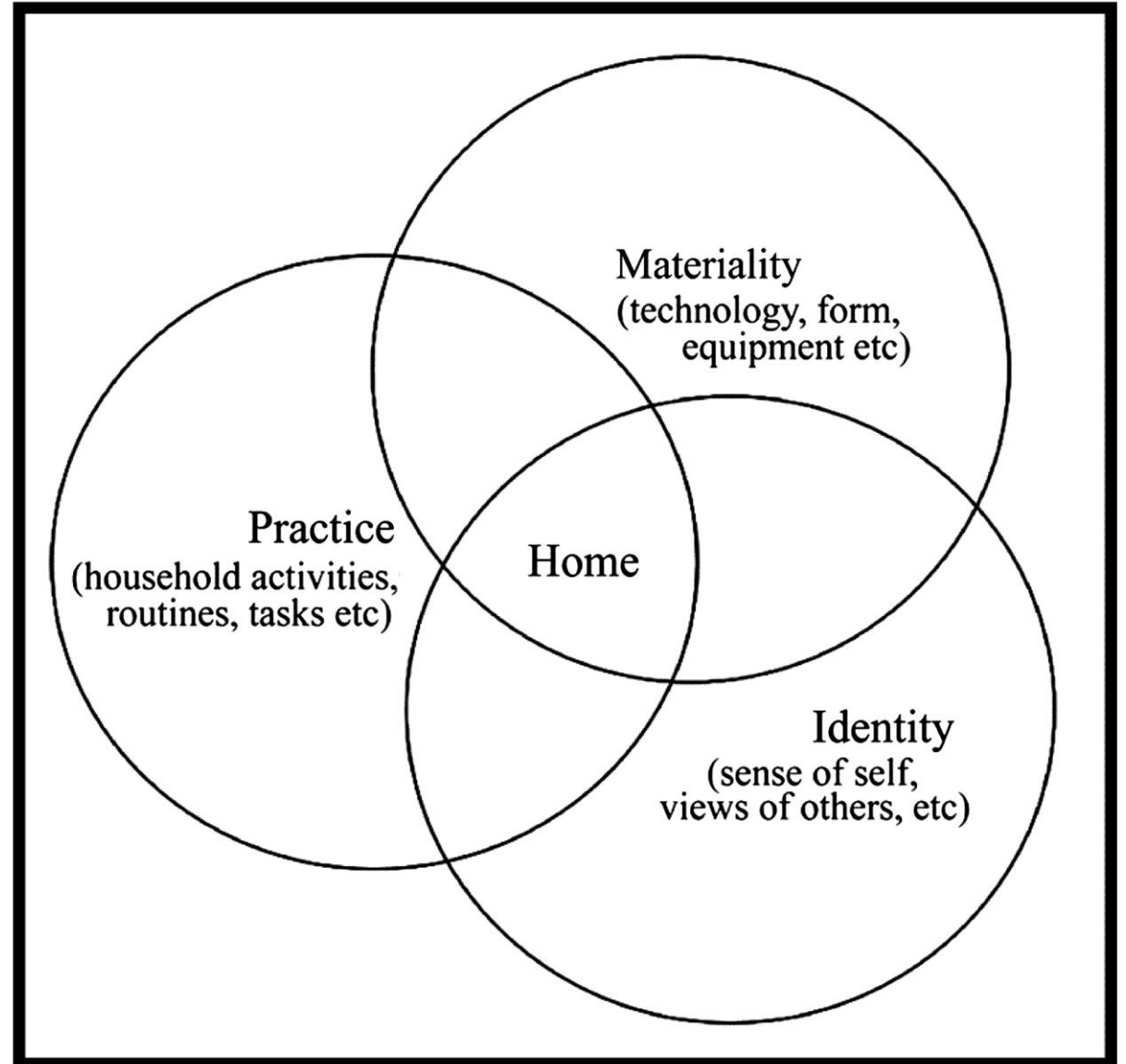
The 'eco home'

- **When a different way felt possible...**
- Code for Sustainable Homes – mandatory from 2007
- Heating was a big part of it
- Installations of heat pumps peaked in 2011 (EnergyRev, 2024)
- Scrapped in 2014.
- Future Homes Standard (2022).



The 'eco home'

- The eco-home as home- social, cultural, relational
- Four schemes: 3 social housing, 1 owner occupied
- Guided tours (Pink, 2008)
- Films charting progress
- Poor 'handovers'
- Social housing tenants felt demotivated, private occupants determined
- Tenure, agency and identity impacted experience
- Alignment between materiality, practice and identity – felt like home.



Nested triad of home identity. Goodchild, Ambrose, O'Flaherty., (2014).



Source: Justheat image archive.

What are the lessons?

Think beyond the techno-economic:

- Stop viewing social and cultural factors as ‘impediments’
- We must preserve the delight, but without romanticising the past
- We must find a new way to achieve it.

“The hearth fire, the sauna, the Roman and Japanese baths [...] thermal delight about which rituals have developed - reinforcing bonds of affection and ceremony forged in the thermal experience. [Central heating] has not responded to the various ways that people use, remember, and care about the thermal environment and how they associate their thermal sense with their other senses.” (Heschong, 1979).

What are the lessons?

The private benefits to the consumer must be significant and policy made in their interests of those for whom the current system works least.



What are the lessons?

Learn from elsewhere and from the past: our present, their past.



Read radiator, symbolising 'warm rent' in Sweden. Copyright: Jenny von Platten, 2023.

What are the lessons?

Stability of the policy and regulatory environment is crucial.

“Leading heat pump markets around the world have one thing in common: a stable and clear policy and regulatory landscape. If the policy package is right, consumer demand and industry investment follows, as experience from other countries shows very clearly. The UK can be a global leader on clean heating but this requires long-term policies to drive consumer demand and supply chain expansion.”
(Rosenow, 2023)

What are the lessons?

Diversify who makes (and informs) policy (Rotmann et al., 2019)



Women Professors

- Women occupy 45% of academic jobs in UK HE
- Representation declines dramatically as you move up in seniority
- 20.5% of Professors are women
- Inaugurals are shaped in the image of those who have traditionally delivered them.
- Mentoring can help, but must be relatable!
- Intersectionality needs to be the focus
- **Another example contributed!**

Source: AdvanceHE (2020)/HEPI (2021).



Holyrood, April, 2017.

Thank you



Unused slides

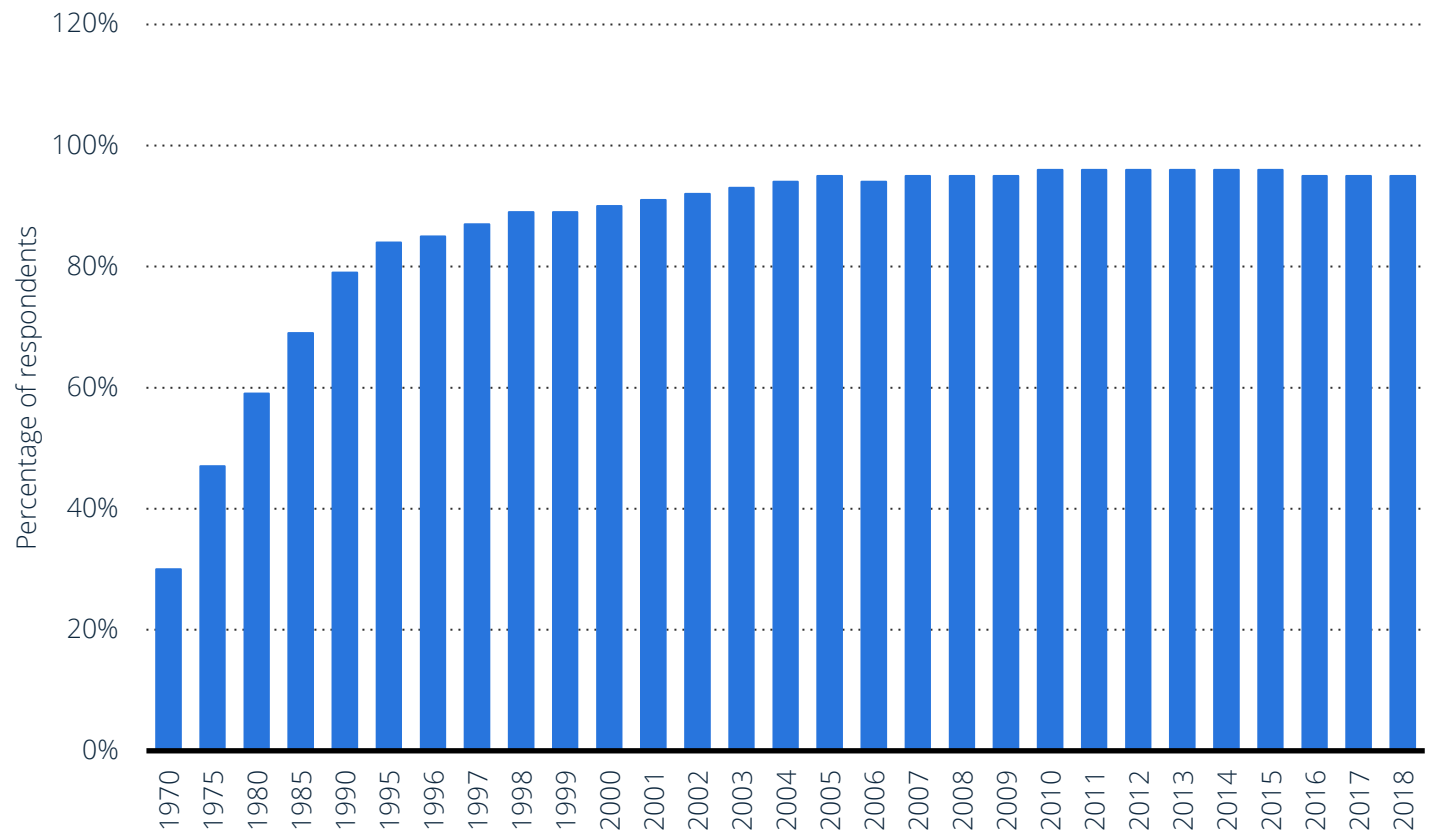


“We are warmed on one side and chilled on the other. Neither is too great to bear.” C.J Richardson, *An Englishman’s House* (1898)

Home of the hearth

- Thermal delight: pleasure and comfort from thermal sensations (Heschong, 1979).
- Not thermally comfortable but still thermally delightful?
- Romanticised by those who did not do the labour.
- Advice and expectations of thermal comfort very different.
- Mid- late C19th: Bedrooms generally at 10 degrees C (Flanders, 2003)
- 1.5 million homes have log burners (DEFRA, 2023).

The home of intangible heat



Ownership of central heating systems in the United Kingdom (UK) 1970-2018

ONS (2019)



Home of the hearth

Complex & shifting dynamics of affordable warmth:

- Policy change (energy, economy, housing), innovation re-organise access to affordable warmth.
- Structural change casts a long shadow: miners were well provided for re: fuel. Others experienced fuel poverty, unless wealthy.
- Now vulnerable to fuel poverty and lag behind.
- Assumptions about who is thermally comfortable.



Heating matters...

- Physiologically vital
- Environmentally impactful – 14% of UK carbon emissions
- 120,000 years of enabling life
- Heating is more than just warmth...
- And not just any warmth will do.

Image by Prof Becky Shaw

Domestic mean gas consumption (kWh per meter)



National Statistics for 2019

The home of intangible heat

- .
- 50 years of gas central heating
- 1980s/90s: abundant, affordable, fast (for many)
- Now **high fuel poverty and huge inequality.**
- 2023: 20% households in fuel poverty (NEA, 2022)
- Huge inequality: 35,381 kWh a year (ONS, 2019)
- Could result in ~ 40 extra hours of HHW per week.