

**AUTEUR****Damiana Salm**

damiana.salm@geschichte.

uni-freiburg.de

Department of History,  
Albert Ludwig University  
Freiburg in Breisgau**DATE DE PUBLICATION**

12/03/2024

**NUMÉRO DE LA REVUE**

JEHRHE #11

**RUBRIQUE**

varia

**MOTS-CLÉS**Pauvreté énergétique ; Coût  
de l'énergie ; Infrastructure ;  
Logement social ; Aide  
sociale

## Living in the “All-Electric Alcatraz”: Fuel Poverty in 1970s British Social Housing

**Résumé**

Using the example of Hunslet Grange, a social housing estate in 1970s Leeds, this article examines how its tenants increasingly lived in conditions that became known and politicised under the label of fuel poverty and how this served as a manifestation of the shortcomings of British social housing policies of the 1960s and the promises of comfort and higher living standards on which it was based. To this end, the article looks at the experiences, perceptions, and practices of the residents of Hunslet Grange who were confronted with high energy costs. It then situates their everyday lives and problems in dealing with high energy costs within a broader public discourse on social housing, energy costs, and welfare in Britain in the 1970s.

**Remerciements**

My sincere thanks to Melanie Arndt and Frank Trentmann for their unwavering support and invaluable feedback throughout the writing process of this article; to Paul Richards for his assistance in proofreading the English manuscript; and to the two anonymous reviewers whose comments greatly improved this article.

**Plan de l'article**

- Hunslet Grange and the building boom of the 1960s
- The high energy costs of Hunslet Grange's central heating
- Fuel Poverty and the crisis of British social housing in the 1970s
- Conclusion

1 A careful reader of the Yorkshire Post edition of 28 March 1977 might have been taken aback by the heading *It's a Poor Life in All-Electric Alcatraz*. The title referred not to the former maximum-security prison on Alcatraz Island but to Hunslet Grange—a large social housing estate in Leeds that was increasingly attracting the attention of the local public in the 1970s. Initially planned with ambitious ideas and high expectations for an improved standard of living, Hunslet Grange soon became a problem estate following its completion in the years 1967 to 1970. The reason for this was its structural faults, which were particularly noticeable in connection with the electric central heating and high energy costs. More and more residents found it difficult to pay their energy bills in the 1970s and had to face falling into arrears with the energy authorities and risking having their energy supply cut off. What initially meant precarious living conditions for the residents of Hunslet Grange, however, soon became an issue that British politicians, social scientists and voluntary organisations began to publicly problematise under the term ‘fuel poverty’.<sup>1</sup>

2 Despite the relatively recent history of the term, the phenomenon that it attempts to capture linguistically—the connection between poverty and energy costs—is not new. On the contrary, a number of recent historical studies have shown that such a connection has existed since the 19<sup>th</sup> C. at the latest and continued to exist well into the 20<sup>th</sup> C.<sup>2</sup> The decisive difference

between these early forms of deprivation of energy resources (such as wood, coal, or peat) and the variant that became a social and political issue in 1970s Britain as fuel poverty, is that energy consumption has increasingly become an integral part of a living standard guaranteed by the welfare state since the 1950s.

Indeed, in tune with other Western industrialised societies, Britain had seen household energy consumption rising steadily since the 1950s.<sup>3</sup> The increase in domestic energy consumption was largely related to the fact that housing in the second half of the 20<sup>th</sup> C. was coming to

of wood. See Frank Trentmann, “Getting to Grips with Energy. Fuel, Materiality and Daily Life”, *Science Museum Group Journal. Special Issue. The Material Culture of Energy*, 2018. URL: <https://dx.doi.org/10.15180/180901> (accessed 09/02/24). On poverty and energy costs since the 19<sup>th</sup> C. see Sean Patrick Adams, “Domestic Storage Problems and Transitions. Coal in Nineteenth-Century America”, in Vanessa Taylor, Heather Chappells (eds.), *Energizing the Spaces of Everyday Life. Learning from the Past for a Sustainable Future* (Munich: RCC Perspectives, 2019), 39–46; Melanie Arndt, “The Heat Is On!”, *Springs. The Rachel Carson Center Review*, n° 3, 2023. URL: <https://springs-rcc.org/the-heat-is-on/> (accessed 09/10/2023); Liam Kennedy, “‘The People’s Turf’. Turf in Ireland in the Nineteenth and Twentieth Centuries”, in Richard W. Unger (ed.), *Energy Transitions in History. Global Cases of Continuity and Change* (Munich: RCC Perspectives, 2013), 25–30; Richard D. Oram, “Social Inequality in the Supply and Use of Fuel in Scottish Towns c. 1750–1850”, in Geneviève Massard-Guilbaud, Richard Rodger (eds.), *Environmental and Social Justice in the City. Historical Perspectives* (Cambridge: The White Horse Press, 2011), 211–231; Ruth W. Sandwell, “How Households Shape Energy Transitions. Canada’s Great Transformation”, in Taylor, Chappells, *Energizing*, 23–30; David Zylberg, “Fuel Prices, Regional Diets and Cooking Habits in the English Industrial Revolution (1750–1830)”, *Past & Present*, n° 299, 2015, 91–122.

<sup>3</sup> See Roger Fouquet, *Heat, Power and Light. Revolutions in Energy Services* (Cheltenham/Northampton: Edward Elgar, 2008), 3–41; Roger Fouquet, Peter J. G. Pearson, “A Thousand Years of Energy Use in the United Kingdom”, *The Energy Journal*, vol. 19, n° 4, 1998, 1–41; Jason Palmer, Ian Cooper, *Great Britain’s Housing Energy Fact File* (London: Department of Energy and Climate Change, 2011), 7–12; Jason Palmer, Ian Cooper, *United Kingdom Housing Energy Fact File* (London: Department of Energy and Climate Change, 2013), 9–17; S. Russell, “Writing Energy History. Explaining the Neglect of CHP/DH in Britain”, *The British Journal for the History of Science*, vol. 26, n° 1, 1993, 33–54. For a more general overview see Astrid Kander, Paolo Malanima, Paul Warde, *Power to the People. Energy in Europe over the Last Five Centuries* (Princeton/Oxford: Princeton University Press, 2013), 251–386.

<sup>1</sup> See Brenda Boardman, *Fuel Poverty. From Cold Homes to Affordable Warmth* (London/New York: Belhaven Press, 1991), 11–33. For an overview of the current discussions and policies on fuel poverty, also known as ‘energy poverty’, see the special issue “Fuel Poverty Comes of Age. Commemorating 21 Years of Research and Policy”, *Energy Policy*, vol. 49, 2012, here particularly Brenda Boardman, “Fuel Poverty Synthesis. Lessons Learnt, Actions Needed”, *Energy Policy*, vol. 49, 2012, 143–148; Stefan Bouzarovski, Saska Petrova, “A Global Perspective on Domestic Energy Deprivation. Overcoming the Energy Poverty–Fuel Poverty Binary”, *Energy Research & Social Science*, vol. 10, 2015, 31–40; Gavin Bridge et al. (eds.), *Energy and Society. A Critical Perspective* (London/New York: Routledge, 2018); Katalin Csiba (ed.), *Energy Poverty. Handbook* (Brussels: European Union, 2016).

<sup>2</sup> To other researchers, the problem already existed in the Middle Ages and was closely linked to the consumption

occupy a more central place within a new standard of living promoted by the welfare state of the post-war period: large sections of the population were developing increased demands for their living space and comfort in a context of new welfare state measures. Comfort became more and more important, with heating, or rather warmth, playing an essential role in the creation of it.<sup>4</sup> In the wake of several miners' strikes (1972, 1974) and the two oil price crises (1973 to 1974 and 1979 to 1980), however, Britain experienced an energy crisis that resulted in substantial price increases in the energy sector and a shift within energy policy towards conservation and later privatisation.<sup>5</sup> This development was finally accompanied by the recession of the years 1973 to 1975, in which all the major achievements of the previous 25 years of post-war prosperity—economic growth, full employment, and the

<sup>4</sup> See Alistair Kefford, “Housing the Citizen-Consumer in Post-War Britain. The Parker Morris Report, Affluence and the Even Briefer Life of Social Democracy”, *Twentieth Century British History*, vol. 29, n° 2, 2018, 225–258; Claire Langhamer, “The Meanings of Home in Postwar Britain”, *Journal of Contemporary History*, vol. 40, n° 2, 2005, 341–362; Peter Malpass, *Housing and the Welfare State. The Development of Housing Policy in Britain* (Basingstoke et al.: Palgrave Macmillan, 2005), 54–100; Frank Trentmann, Anna Carlsson-Hyslop, “The Evolution of Energy Demand in Britain. Politics, Daily Life, and Public Housing, 1920s–1970s”, *The Historical Journal*, vol. 61, n° 3, 2018, 807–839. For heat and comfort see Arndt, “The Heat” (cf. note 2); Catherine Fennell, “‘Project Heat’ and Sensory Politics in Redeveloping Chicago Public Housing”, *Ethnography*, vol. 12, n° 1, 2011, 40–64; Ruth Oldenziel, Mikael Hård, *Consumers, Tinkerers, Rebels. The People Who Shaped Europe* (London: Palgrave Macmillan, 2013), 49–81; Irene Pallua, “A Healthy Climate for Swiss Homes. The Medicalisation of Indoor Climate in the Late 19th C.”, *Journal of Energy History/Revue d'histoire de l'énergie*, n° 7, 2022. URL: [energyhistory.eu/en/node/295](https://energyhistory.eu/en/node/295) (accessed 09/10/2023); Rebecca Wright, “68 Degrees. New York City's Residential Heat and Hot Water Code as an Invisible Energy Policy”, *Environmental History*, vol. 28, n° 4, 2023, 711–727.

<sup>5</sup> See Martin Chick, *Electricity and Energy Policy in Britain, France and the United States since 1945* (Cheltenham: Edward Elgar, 2007); Dieter Helm, *Energy, the State, and the Market. The British Energy Policy since 1979* (Oxford: Oxford University Press, 2004); Thomas Turnbull, “From Paradox to Policy. The Problem of Energy Resource Conservation in Britain and America, 1865–1981” (Ph.D diss., University of Oxford, 2017); John Campbell Wilson, “A History of the UK Renewable Energy Programme, 1974–88. Some Social, Political, and Economic Aspects” (Ph.D diss., University of Glasgow, 2012).

implementation of a welfare system—began to show symptoms of crisis.<sup>6</sup>

While in the preceding two decades energy consumption had become ever more firmly established in the everyday lives of citizens, in the 1970s, it turned into a social problem for parts of the population, who could no longer afford the energy necessary to satisfy their basic needs (like warmth) and therefore lived in—what was about to become known as—fuel poverty. Thus, the emergence of fuel poverty was also an expression of unfulfilled new expectations of comfort and higher living standards on the part of the population and voluntary organisations, politicians, and social scientists, who drew the government's attention to this inadequacy.

These disappointed expectations could particularly well be exemplified in 1970s British social housing. It was, not least, in large social housing developments like Hunslet Grange where such unfulfilled expectations were coupled with the growing inability of tenants to pay for their energy costs in the 1970s. Using the example of Hunslet Grange in Leeds, this article examines how its tenants increasingly lived in conditions that became known and politicised under the label of fuel poverty and how this served as a manifestation of the shortcomings of British social housing policies of the 1960s and the promises

<sup>6</sup> For 1970s Britain see Andy Beckett, *When the Lights Went Out. Britain in the Seventies* (London: Faber & Faber, 2009); Aled Davies et al. (eds.), *The Neoliberal Age? Britain since the 1970s* (London: UCL Press, 2021); Kenneth O. Morgan, “Britain in the Seventies – Our Unfinest Hour?”, *Revue Française de Civilisation Britannique/French Journal of British Studies*, vol. XXII, 2017, 1–17; Hugh Pemberton et al. (eds.), *Reassessing 1970s Britain* (Manchester/New York: Manchester University Press, 2013); Dominic Sandbrook, *State of Emergency. The Way We Were. Britain 1970–74* (London: Penguin Books, 2011); Dominic Sandbrook, *Seasons in the Sun. The Battle for Britain. 1974–1979* (London: Penguin Books, 2012); Pat Thane, *Divided Kingdom. A History of Britain. 1900 to the Present* (Cambridge/New York: Cambridge University Press, 2018), 220–345. For a general overview of this period see Eric J. Hobsbawm, *The Age of Extremes. The Short Twentieth Century, 1914–1991* (London: Abacus, 1995), 403–432; Tony Judt, *Postwar. A History of Europe since 1945* (New York: The Penguin Press, 2005), 453–633; Mark Mazower, *Dark Continent. Europe's Twentieth Century* (New York: Alfred A. Knopf, 1998), 327–360.

of comfort and higher living standards on which it was based. To this end, the article looks at the experiences, perceptions, and practices of the residents of Hunslet Grange who were confronted with high energy costs, and it then situates their everyday lives and problems in dealing with high energy costs within a broader public discourse on social housing, energy costs, and welfare in Britain in the 1970s.

6 In doing so, the article sheds light on an aspect of the history of social housing and energy consumption in 1970s Britain that has not yet been thoroughly examined. While the research literature on British social housing is extensive, especially for the second half of the 20<sup>th</sup> C., only a few studies have included issues of energy demand and costs in their analysis.<sup>7</sup> Similarly, energy history has not yet addressed the problem of fuel poverty or its emergence as a social and political problem in 1970s Britain. The existing research literature in and beyond Britain has focused on the energy crisis of the 1970s, concentrating on the macro-scale developments in energy politics of the period.<sup>8</sup> More recently, scholars in the field of energy history have argued for a more “user-oriented perspective”<sup>9</sup> on energy, focusing on people’s everyday

lives and practices.<sup>10</sup> Thus, by foregrounding the energy-historical dimension of social housing in Britain and placing it in the context of broader societal developments, this article links an energy history with a social history.

Beyond the history of social housing and energy consumption in 1970s Britain, this article also serves as a contribution to the ‘historicisation’ of the concept of fuel poverty, which has so far mainly been the preserve of social science research.<sup>11</sup> Within the growing number of social science studies on the subject, only a few have looked at fuel poverty from a historical dimension—most notably British social scientist Brenda Boardman in her seminal work *Fuel Poverty. From Cold Homes to Affordable Warmth*, published in 1991.<sup>12</sup> Although Boardman also locates the

<sup>7</sup> With some noteworthy exceptions like Trentmann, Carlsson-Hyslop, “The Evolution” (cf. note 4); Wright, “68 Degrees” (cf. note 4).

<sup>8</sup> See the chapters in Elisabetta Bini et al. (eds.), *Oil Shock. The 1973 Crisis and Its Economic Legacy* (London/New York: I. B. Tauris, 2016); the articles in the special issue by Frank Bösch, Rüdiger Graf (eds.), “The Energy Crises of the 1970s”, *Historical Social Research*, vol. 39, n° 4, 2014, here particularly Frank Bösch, Rüdiger Graf, “Reacting to Anticipations. Energy Crises and Energy Policy in the 1970s. An Introduction”, *Historical Social Research*, vol. 39, n° 4, 2014, 7–21; Niall Ferguson et al. (eds.), *The Shock of the Global. The 1970s in Perspective* (Cambridge et al.: The Belknap Press of Harvard University Press, 2010); Giuliano Garavini, “Western Europe and the Long Energy Crisis of the 1970s”, in Claudia Hiepel (ed.), *Europe in a Globalising World. Global Challenges and European Responses in the “Long” 1970s* (Baden-Baden: Nomos, 2014), 147–163; Rüdiger Graf, *Öl und Souveränität. Petroknowledge und Energiepolitik in den USA und Westeuropa in den 1970er Jahren* (Berlin et al.: De Gruyter, 2014).

<sup>9</sup> Vanessa Taylor, Heather Chappells, “Introduction”, in Taylor, Chappells, *Energizing*, 5 (cf. note 2).

<sup>10</sup> See for example the chapters in Taylor, Chappells, *Energizing* (cf. note 2) and in Abigail Harrison Moore, Ruth W. Sandwell (eds.), *In a New Light. Histories of Women and Energy* (Montreal et al.: McGill-Queen’s University Press, 2021). On the incorporation of energy consumers into historical research, see Yves Bouvier, “Energy Consumers. A Boundary Concept for the History of Energy”, *Journal of Energy History/Revue d’histoire de l’énergie*, n° 1, 2018. URL: [energyhistory.eu/en/node/86](http://energyhistory.eu/en/node/86) (accessed 10/07/2023).

<sup>11</sup> The prevailing opinion within recent research on the topic is that social, political and scientific interest in fuel poverty initially emanated from Britain in the 1990s at the latest and only recently became relevant in other European or global contexts. See Stefan Bouzarovski, *Energy Poverty. (Dis)Assembling Europe’s Infrastructural Divide* (Cham: Springer, 2018), 2; Stefan Bouzarovski et al., “Energy Poverty Policies in the EU. A Critical Perspective”, *Energy Policy*, vol. 49, 2012, 76; Bouzarovski, Petrova, “Global Perspective”, 32 (cf. note 1); Bridge et al., *Energy*, 132 (cf. note 1); Karl-Michael Brunner, Sylvia Mandl, “Energy Consumption and Social Inequality. Fuel Poverty in Europe”, in Sigrid Reiter (ed.), *Energy Consumption. Impacts of Human Activity, Current and Future Challenges, Environmental and Socio-Economic Effects* (New York: Nova, 2014), 171; Rosie Day et al., “Conceptualising Energy Use and Energy Poverty Using a Capabilities Framework”, *Energy Policy*, vol. 93, 2016, 256f.; Harriet Thomson, Carolyn Snell, “Quantifying the Prevalence of Fuel Poverty across the European Union”, *Energy Policy*, vol. 52, 2013, 563. A few historical studies make use of the concept, such as Kennedy, “People’s Turf”, 29 (cf. note 2), Oram, “Social Inequality”, 211 (cf. note 2), without further conceptualising fuel poverty in historical terms.

<sup>12</sup> See chapter 2, “Emergence of Fuel Poverty”, in Boardman, *Fuel Poverty*, 11–33 (cf. note 1); similarly, Jane Rudge, “Coal Fires, Fresh Air and the Hardy British. A Historical View of Domestic Energy Efficiency and Thermal Comfort in Britain”, *Energy Policy*, vol. 49, 2012, 6–11.



emergence of public and political awareness of fuel poverty in the context of the energy crisis of the 1970s, she looks further back, seeing the traditionally low energy efficiency of the British housing stock and the fact that low-income households largely lived in energy-inefficient and expensive-to-heat homes as the historical cause of its existence.<sup>13</sup> Where Boardman rightly points out the connection between energy-inefficient buildings, high energy costs and low-income households, the present article now puts emphasis on the historical “making” of this connection. Using the example of Hunslet Grange, the article will show how the creation of thermally inadequately insulated social housing estates was one of the shortcomings of British social housing policies of the 1960s. Low-income households were increasingly pushed into these estates in the 1970s. By focussing on the everyday perceptions and experiences of the residents of Hunslet Grange, the article furthermore illustrates how low-income households in 1970s Britain were becoming ever more ready to perceive and challenge local authorities about the inherent link between the structural defects of their homes and high energy costs. In doing so, the article also examines how local experiences influenced or contributed to establishing fuel poverty as a social and political issue in 1970s Britain.

- 8 In what follows, the article first locates the planning and construction of Hunslet Grange in the wider context of the British housing policy of the 1960s, which had at its core a building boom made possible by the application of

<sup>13</sup> See Brenda Boardman, *The Cost of Warmth. An Energy Efficient Approach to Overcoming Fuel Poverty* (Bradford: National Right to Fuel Campaign, 1984), 1–34; Boardman, *Fuel Poverty*, 2–6, 11–18, 25–33, 200–205, 221–230 (cf. note 1). According to Boardman, it was this material component—the condition of the dwelling and its level of energy efficiency—that differentiates ‘fuel’ poverty from ‘general’ poverty: While the latter can be alleviated through income support, fuel poverty can only be reduced through capital investment (thermal insulation, heating system, etc.). See Boardman, *Cost of Warmth*, 4; Boardman, *Fuel Poverty*, 221–230; also in Brenda Boardman, “Fuel Poverty Is Different”, *Policy Studies*, vol. 12, n° 4, 1991, 30–41; Brenda Boardman, *Fixing Fuel Poverty. Challenges and Solutions* (London: Earthscan Publications, 2010), xv–xvii.

cheaply implemented industrial building methods and housing development plans that were both dense and large-scale. It then examines how the estate’s structural faults, more precisely its electric central heating, became a heavy burden on its tenants who were confronted with high energy bills that they could not pay. Lastly, the article examines how the precarious living conditions in Hunslet Grange, part of which was the risk of falling into, or the fact of living in, fuel poverty, were embedded in more general failings of British social housing and welfare policies in the 1970s.

### HUNSLET GRANGE AND THE BUILDING BOOM OF THE 1960S

Hunslet, a village in the south-east of the English city of Leeds, had changed many times in the course of its history, but probably never in such a rapid and profound way as in the 1960s. Until well into the 20<sup>th</sup> C. the landscape of Hunslet had been characterised by over 5,000 terraced houses from the era of industrialisation, but by the 1960s, a modern housing complex with 1,249 flats had come to dominate the village scene. From its completion between 1967 and 1970 until its demolition in 1983, this complex bore the name Hunslet Grange—or Leek Street Flats, as the local population called it. In 1961, Leeds City Council (LLC), together with the Sheffield, Hull, and Nottingham City Councils, commissioned a consortium, the Yorkshire Development Group (YDG), to develop an industrial housing estate project for the four cities. Five years later, the York-based construction company Shepherd Building Group was entrusted with the planning and implementation of this four-part project, consisting of over 4,500 dwellings in total. According to David John Ellis, the YDG project was the largest “single building contract”<sup>14</sup> in Europe at the time. The extensive enterprise was financed by public funds from each of the four local authorities. Hunslet Grange was thus part of an overarching plan by the four administrations to create new and quality housing in Yorkshire.<sup>15</sup>

<sup>14</sup> David John Ellis, “Pavement Politics. Community Action in Leeds, c. 1960–1990” (Ph.D diss., University of York, 2015), 29.

<sup>15</sup> See *ibid.*, 27–31; Hunslet Grange Heating Action Group (HGHA), *Hunslet Grange. An Experiment and Its Victims*

10 The combination of the time period, building methods, and the purpose pursued with the building of Hunslet Grange fits well within the main trends of British housing policy of the 1960s, such as the incipient building boom, the excessive use of industrial building methods, and the goal of creating adequate housing for all citizens. The construction of Hunslet Grange took place at a time when the Labour Party government under Harold Wilson (1964 to 1970) had set itself the goal of eliminating the structural housing shortage in Britain through a programme including a “massive housing-drive”<sup>16</sup> in the social housing sector. Insufficient or inadequate housing had been one of the most pressing problems of British domestic policy since the end of the Second World War, not least because part of the national housing stock had been bombed during the war. In addition, the number of households increased significantly in the post-war period. In England and Wales alone, the number of households rose from 14,194,000 in 1951 to 15,426,000 in 1961 and to 17,144,000 in 1971.<sup>17</sup> The solution to this problem was addressed in the two decades after 1945 by the government cabinets of both major parties, the Conservative Party (or Tory) and the Labour Party, albeit in different ways. When Harold Wilson came to power in 1964, the new government committed itself to rectifying the housing policy failures of the former Tory governments.<sup>18</sup> This included pushing ahead

(Leeds 1976), n. p. (Introduction); WYAL, LC/LM/8/23, YDG. Brochure for Leek Street Development Hunslet, City of Leeds 1968, ii–iii, 18 (hereafter abbreviated as Brochure 1968); WYAL, LLD8/2/2/9/348, Report of Director of Housing Department, re. Hunslet Grange Estate (Leek Street Flats), Leeds 1982, 1–4 (hereafter abbreviated as Report of Director 1982); YFA/NEA, YFA 5564, Peter Bradford, Roger Coward, *Community Builder. A Shepherd Building Group Film* (York: World Wide Press 1968). URL: <https://www.yfanefa.com/record/10953> (accessed 18/07/22), 2:48–3:27 (hereafter abbreviated as Community Builder 1968).

<sup>16</sup> John R. Short, *Housing in Britain. The Post-War Experience* (London/New York: Methuen, 1982), 55.

<sup>17</sup> See Alan Holmans, “Housing”, in A. H. Halsey, Josephine Webb (eds.), *Twentieth-Century British Social Trends* (Basingstoke et al.: Palgrave Macmillan, 2000), 470f.

<sup>18</sup> For the housing policy of the former Tories government see *ibid.*, 490; Short, *Housing*, 47–54 (cf. note 16); Alan Simmonds, “Raising Rachman. The Origins of the Rent Act 1957”, *The Historical Journal*, vol. 45, n° 4, 2002, 843–868; Peter Weiler, “The Rise and Fall of the Conservatives”

with the clearance of slum-like properties in outer and inner boroughs of British cities, which had been neglected in previous decades. Furthermore, social housing, which had been equally neglected, was to be revived by building a *lot, big* and, above all, *dense*. Hunslet near Leeds was affected by both goals, in two ways: In tune with the overall number of vacated dwellings in England and Wales, which was never as high as in the 1960s, 519 terraced houses on the site of what was later to become the housing estates were demolished in Hunslet in 1964 alone. At the same time, the construction work for the housing estate Hunslet Grange began precisely when the desired building boom in social housing was at its peak—from 1967 to 1968.<sup>19</sup>

Industrial building techniques, such as those used at Hunslet Grange in the 1960s, made this building boom possible. In contrast to more traditional building methods such as brick construction, which was local, costly, and time-consuming, industrial building methods such as system building allowed the individual components or modules to be prefabricated in production facilities and only later assembled at the building site. Industrial building was not a novelty in the 1960s; on the contrary, construction methods such as system building had been used as the epitome of modern building since the beginning of the 1950s at the latest.<sup>20</sup> What had changed in the 1960s, however, was

‘Grand Design for Housing’, 1951–1964”, *Contemporary British History*, vol. 14, n° 1, 2000, 122–150.

<sup>19</sup> See Short, *Housing*, 56 (cf. note 16); also John Boughton, *Municipal Dreams. The Rise and Fall of Council Housing* (London/New York: Verso, 2019), 86–138; Patrick Dunleavy, *The Politics of Mass Housing in Britain, 1945–1975. A Study of Corporate Power and Professional Influences in the Welfare State* (Oxford: Oxford University Press, 1981), 36–39; Miles Glendinning, *Mass Housing. Modern Architecture and State Power. A Global History* (London et al.: Bloomsbury Visual Arts, 2021), 141f., 147–152; Holmans, “Housing”, 478–490, 505f. (cf. note 17); Malpass, *Housing*, 91–96 (cf. note 4). For Hunslet Grange see Ellis, “Pavement”, 29 (cf. note 14).

<sup>20</sup> See E. F. Cattle, “The British Experience of Defects in Non-Traditional and Industrialised Dwellings”, in Niels L. Prak (ed.), *Post-War Public Housing in Trouble. Papers Presented at the Congress ‘Post-War Public Housing in Trouble’, Delft, the Netherlands, 4<sup>th</sup>–5<sup>th</sup> October 1984* (Delft: Delft University Press, 1985), 115–120; Nick Hayes, “Making Homes by Machine. Images, Ideas and Myths in the Diffusion

the extent to which such industrial methods were promoted by the Labour government and recommended to local authorities such as the City Council in Leeds for use in social housing.<sup>21</sup> In building Hunslet Grange, the YDG opted to use industrial construction techniques to provide the cost-effective and rapid response the local authority hoped for to remedy the shortage of adequate housing in Leeds. According to the official brochure of the YDG, up to ten fully equipped flats were to be completed through system building within one week, which in many respects conformed to the intended boom in social housing. At the same time, the exterior appearance of the housing estate also corresponded to the brutalist architectural style that had been common since the 1950s.<sup>22</sup> Hunslet Grange consisted of twelve blocks, between six and seven storeys high and clad in grey pebbledash slabs. It contained 1,249 flats connected by concrete terraces—all arranged in open quadrangles.<sup>23</sup>

- 12 Both the building boom and the industrial construction methods served the overarching goal of providing new affordable housing adapted to contemporary living standards for all citizens through social housing. In contrast to the Conservative housing policy of the previous years, the new Labour government saw it as the duty of the state to ensure that inequalities

in housing were remedied, and the living standards of its citizens improved. At the same time, this policy shift equally expressed the profound change in meaning that was attached to housing in the second half of the 20<sup>th</sup> C. British society was advancing to become a “‘home-centred’ society”.<sup>24</sup> Not only were more and more people willing and able to buy their own homes in the 1950s and 1960s, but at the same time, expectations of the needs a home had to satisfy and the comfort it had to provide were also increasing.<sup>25</sup> A symbolic culmination of this change was the *Homes for Today and Tomorrow* report of 1961, also known as the Parker Morris Report after the head of the committee that produced it. The aim of the report was to propose improvements in British housing standards and to create a common frame of reference—one that corresponded with the ‘new patterns of living’<sup>26</sup> brought about by the altered material realities of post-war prosperity. According to the Parker Morris Report, post-war Britain had experienced a “social and economic revolution” that was rapidly and fundamentally transforming the ways “in which people want to live” and “the things which they own and use”.<sup>27</sup> In line with this increase in prosperity, the Parker Morris Committee decided “to re-examine the kinds of homes that we ought to be building, to ensure that they will be adequate to meet the newly emerging needs of the future, as well as the basic human needs which always stay the same.”<sup>28</sup> The committee aimed to counteract the overcrowded and cramped living conditions that were still to be widely found in many parts of Britain by setting sufficiently high standards, most importantly in space as well as heating. Central heating played a particularly important role in this. In the view of the Parker Morris Committee, central heating should be used to

of Non-Traditional Housing in Britain 1942–1954”, *Twentieth Century British History*, vol. 10, n° 3, 1999, 282–309.

<sup>21</sup> According to the final report of the Director of the Housing Department at LCC, the local authority in Leeds was also recommended to use industrial construction methods. See HGAG, *Hunslet Grange*, n. p. (Introduction) (cf. note 15); Report of Director 1982, 1–4 (cf. note 15).

<sup>22</sup> See Barnabas Calder, *Raw Concrete. The Beauty of Brutalism* (London: Penguin Books, 2016), 3–19.

<sup>23</sup> See Brochure 1968, ii, 8–15 (cf. note 15); Community Builder 1968, 4:00–13:30 (cf. note 15); Report of Director 1982, 1–4 (cf. note 15); see also, Ellis, “Pavement”, 27–31 (cf. note 14). There are various figures for the total number of dwellings in Hunslet Grange; the one given here is based on the information in the Report of Director 1982, 3. For photographs of Hunslet Grange see the newspaper article by Andrew Hutchinson, “Changing Leeds. The Rise and Fall of Hunslet’s Leek Street Flats”, *Yorkshire Evening Post*, 02/04/2020. URL: <https://www.yorkshireeveningpost.co.uk/heritage-and-retro/retro/changing-leeds-the-rise-and-fall-of-hunslets-leek-street-flats-2524323> (accessed 15/01/24).

<sup>24</sup> Kefford, “Housing”, 226 (cf. note 4); Langhamer, “Meanings”, 341 (cf. note 4).

<sup>25</sup> See Langhamer, “Meanings”, 341–362 (cf. note 4), who traces the historical roots of this change in meaning back to the 1930s.

<sup>26</sup> See Department of Environment, *Homes for Today and Tomorrow* (London: Her Majesty’s Stationery Office, 1979 [1961]), 1.

<sup>27</sup> *Ibid.*, 2.

<sup>28</sup> *Id.*

make all living spaces habitable and more comfortable through an even distribution of heat. This, the committee reasoned, would not only provide sufficient personal space and comfort for all members of a household but also meet the increasing expectations of people to be warm in their homes.<sup>29</sup> In the area of heating, the committee went as far as to recommend a minimum standard of 13°C for the kitchen and circulation areas and 18°C for the dining and living rooms; however, a heating standard for the bedrooms was considered optional and dependent on the financial means of individual households.<sup>30</sup> These housing standards, known as the Parker Morris standards, finally gained political relevance in the 1960s, when Harold Wilson’s government made them mandatory in social housing (from 1969).<sup>31</sup>

13 Hunslet Grange did not remain unaffected by this development. On the contrary, the conceptualisation of the project was closely linked to contemporary discourses on housing. In the 1968 YDG advertising film *Community Builder*, for example, the voice-over speaks of “homes below the government’s minimum standards”, which were a “headache” for the local authorities because they did not meet people’s expectations of a home “as up-to-date as the mass goods inside them”.<sup>32</sup> Using the example of a family who lived in the terraced houses declared as slums, the film shows how their housing conditions improved when they moved to Hunslet Grange. Whereas at the beginning of the film their everyday life was characterised by a lack of hot water, outdoor toilets, and cramped living conditions, the end of the film visualizes the exact opposite: A modern and bright flat in Hunslet Grange,

where the family enjoys hot water, heating, and their own private toilet. The importance of improved housing standards, more specifically Parker Morris standards, is also mentioned several times in the YDG’s promotional brochure hinting at the acceptance they had already gained. Among other amenities, the brochure promotes enhanced living space as well as warmth (heating) as key features of the housing development. For example, it proudly states that the floor area was on average five per cent above Parker Morris standards and mentions the “automatic gas-fired warm air units”<sup>33</sup> that heat the living room, kitchen, hallway, and bedrooms. Insulated exterior walls and double-glazed, draught-proof windows and doors also made it possible to minimise heating costs, combat draughts and condensation, and made the most of the available space even in cold weather. According to the final report of the Leeds Housing Department in 1982, promises like these and others prompted later residents to move into Hunslet Grange with “high expectations of [...] privacy and comfort”.<sup>34</sup> However, such expectations of improved housing conditions did eventually not materialise. And one main reason for this failure was the cost of heat provision by central heating.

#### THE HIGH ENERGY COSTS OF HUNSLET GRANGE’S CENTRAL HEATING

14 “From the start, Hunslet Grange went disastrously wrong,”<sup>35</sup> declared urbanist Alison Ravetz during a lecture on problem estates in British social housing that she gave at a conference at Delft University in October 1984. While Ravetz’s words may seem exaggerated at first, her assessment of the situation was nevertheless accurate: in fact, shortly after the first block of flats at Hunslet Grange was completed and opened in 1968, a series of construction defects

<sup>29</sup> See *ibid.*, 1–6, 15–18, 49–54.

<sup>30</sup> See *ibid.*, 17; also, Boardman, *Fuel Poverty*, 13 (cf. note 1).

<sup>31</sup> See Barry Goodchild, Robert Furbey, “Standards in Housing Design. A Review of the Main Changes since the Parker Morris Report (1961)”, *Land Development Studies*, vol. 3, n° 2, 1986, 79–99; Kefford, “Housing”, 225–258 (cf. note 4); Langhamer, “Meanings”, 341–362 (cf. note 4); Rodney Lowe, *The Welfare State in Britain since 1945* (Basingstoke et al.: Palgrave Macmillan, 2005 [1993]), 246–271; Malpass, *Housing*, 94f. (cf. note 4).

<sup>32</sup> *Community Builder* 1968, 1:30–2:04 (cf. note 15).

<sup>33</sup> Brochure 1968, 7 (cf. note 15).

<sup>34</sup> Report of Director 1982, 4 (cf. note 15).

<sup>35</sup> Alison Ravetz, “Problem Housing Estates in Britain. The Cases of Quarry Hill Flats and Hunslet Grange, Leeds”, in Prak, *Public Housing*, 44 (cf. note 20).



came to light that henceforth considerably burdened the daily lives of the residents of the housing estate.

15 The range of such construction defects was wide and mainly of a structural nature, i.e., they affected—with varying degrees of severity—all twelve of the apartment blocks built in the period leading up to 1970. In addition to cracks in walls, ceilings, and roofs, the residents were confronted with draughts, excessive dampness in the living spaces (including condensation) and unstable interior walls. Despite the variety of complaints, it was the all-electric central heating that became a core problem for the residents of Hunslet Grange from the mid-1970s onwards. And it became one primarily because of the exorbitantly high energy costs associated with the electric heating system.<sup>36</sup>

16 According to the final report of the Leeds Housing Department in 1982, the reasons for the high energy costs were complex. One major cause was that the electric central heating was inefficient and generated high costs; another was that, shortly after Hunslet Grange was completed in 1970, there was a “major increase in electricity charges”<sup>37</sup> in Britain—triggered by the energy crisis of 1973 to 1974.

17 As stated in the report of the Leeds Housing Department, the inefficiency of the electric central heating was due to the decision to change the energy source in the middle of the construction process.<sup>38</sup> While the initial plans of the YDG were to provide Hunslet Grange with a gas heating system, its installation was stopped soon after the construction work began. The reason for this, the report claimed, was the recent gas explosion at Ronan Point, a system-built tower block in London. In May 1968, it caused the partial collapse of the social housing scheme resulting in several deaths. The rapid collapse of Ronan Point, caused at least in part by poor planning and poor construction, sent shockwaves as far

as Leeds and beyond. In the same year, the YDG decided to install all-electric central heating instead of gas heating. The new heating system was based on night storage heaters that were supposed to warm up overnight, using the electricity rates during off-peak periods, while fan ducts blew hot air into the flats.<sup>39</sup>

According to the report of the Housing Department in Leeds, it was “the worst possible time in any developments’ [sic] history”<sup>40</sup> to make such far-reaching changes to the technical infrastructure of the housing estate. For one thing, the finished flats, already equipped with gas heating, needed to be converted to the new heating system. But most importantly, the construction design of the housing estate as a whole was not suitable for electric central heating because the dense concrete slabs used in the construction required significant amounts of energy to heat up. Once the panels were warm, the report stated, the heat could have been theoretically maintained at a “relatively economical”<sup>41</sup> level. In practice, however, the housing estate was not sufficiently insulated for this. In its 1968 advertising brochure, the YDG had emphasised the “insulating layers”,<sup>42</sup> which were supposed to minimise heating costs and humidity in the flats, but in fact the housing estate lacked insulation suitable for electrical heating. Not only did the warm air condense on the cold and poorly insulated outer walls of the housing estate but the flats also proved difficult to warm up at all. A 1976 report by the local tenants’ action group, the Hunslet Grange Heating Action Group, entitled *Hunslet Grange. An Experiment and Its Victims*, noted that residents were not able to “warm their flats” even when they left their heating

<sup>39</sup> See Ministry of Housing and Local Government, *Report of the Inquiry into the Collapse of Flats at Ronan Point, Canning Town* (London: Her Majesty’s Stationary Office, 1968), 5–44; see also, HGHAG, *Hunslet Grange*, 1 (cf. note 15); Michael Parkin, “Fire Hazard in 1,250 Flats”, *The Guardian*, 30/06/1976, 24; Michael Parkin, “Council ‘Risks Explosions in Flats’”, *The Guardian*, 16/07/1976, 26; Report of Director 1982, 4 (cf. note 15).

<sup>40</sup> Report of Director 1982, 4 (cf. note 15).

<sup>41</sup> Id.; see also, HGHAG, *Hunslet Grange*, 6 (cf. note 15).

<sup>42</sup> Brochure 1968, 7 (cf. note 15).

<sup>36</sup> See Report of Director 1982, 2, 5 (cf. note 15).

<sup>37</sup> Ibid., 6.

<sup>38</sup> See *ibid.*, 4f.

running “at full blast”.<sup>43</sup> Because of the inappropriate building design and poor insulation, the electric central heating was, according to the Housing Department, “virtually incapable of supplying sufficient heat at an economic cost to maintain the warmth of the dwellings.”<sup>44</sup>

- 19 However, another reason why electric central heating could not provide sufficient heat at ‘economic cost’ was that electricity costs had risen massively in the course of the energy crisis from 1973 to 1974. The 1973 oil embargo and several miners’ strikes (1972, 1974), both resulting in significant increases in oil and coal prices, hit Britain’s nationalised electricity industry particularly hard since its production was, at that time, largely based on coal- and to a lesser extent also oil-burning power stations.<sup>45</sup> While the uncertain supply situation in the energy sector had already had a considerable impact on the electricity prices, the British government exacerbated this development by deciding in November 1974 to withdraw “subsidies for the nationalised industries”<sup>46</sup> and to switch to an “economic level of pricing”<sup>47</sup>—i.e. charge electricity based on market prices. Behind this shift towards ‘economic pricing’ was, among other things, the goal of ‘energy conservation’, the idea that energy could be conserved by liberalising the previously state-controlled energy prices to incentivise consumers to use energy more sparingly. In the 1970s, energy conservation became an increasingly influential policy objective of British energy politics—envisioned initially by the Conservative government under Edward Heath (1970 to 1974) and continued in part by the two Labour governments under Harold Wilson (1974 to 1976) and James Callaghan (1976 to 1979).<sup>48</sup>

<sup>43</sup> See HGHAG, *Hunslet Grange*, 8 (cf. note 15).

<sup>44</sup> Report of Director 1982, 4, 6 (cf. note 15).

<sup>45</sup> See Palmer, Cooper, *Energy Fact File 2011*, 9–12 (cf. note 3); Palmer, Cooper, *Energy Fact File 2013*, 11–17 (cf. note 3); Wilson, “History”, 27–43 (cf. note 5).

<sup>46</sup> National Consumer Council, *Paying for Fuel. Report by the National Consumer Council to the Secretary of State for Prices and Consumer Protection* (London: Her Majesty’s Stationery Office, 1976), 4.

<sup>47</sup> *Id.*

<sup>48</sup> See *ibid.*, 1–15; Chick, *Electricity*, 57–83 (cf. note 5); Helm, *Energy*, 14–43 (cf. note 5); Turnbull, “From Paradox”,

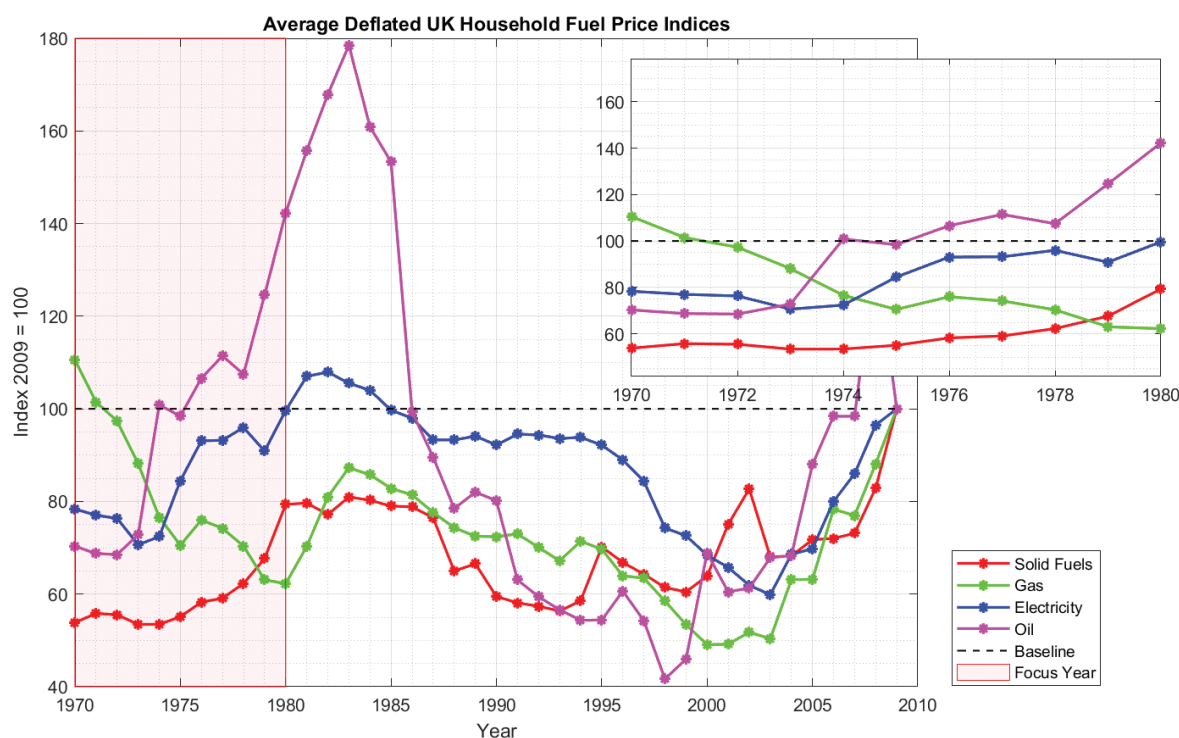
However, a key consequence of this sudden shift in energy pricing policies was that electricity prices in Britain rose significantly from 1974 onwards (see fig. 1). Between 1974 and 1975 alone, there was a 16 per cent increase in electricity prices in real terms, and this upward trend continued, with a further 38 per cent increase by the end of the decade.

This increase in electricity prices was particularly 20 felt by consumers, whose energy expenditure consequently rose as well. Households that had electric central heating were particularly affected by this rise since unlike other heating systems based on burning fuels such as oil or gas, they were dependent on the general electricity grid. While this dependence seemed less relevant in times of cheap electricity, it had far-reaching consequences in the context of an energy crisis and accompanying shifts in energy pricing policies. According to the final report of the Housing Department in Leeds, the off-peak electricity rate increased by 165 per cent and the standard rate by 235 per cent in the period from 1972 to 1978, while the price of gas, for example, ‘only’ increased by 79.6 per cent.<sup>49</sup> Hunslet Grange did not remain untouched by this increase in electricity prices. On the contrary, according to a leaflet distributed by the Yorkshire Electricity Board (Y.E.B.), the local energy authority, in 1976, it was considered to be more expensive than other “all-electric council houses”<sup>50</sup> in the region. Based on the source material available, it is difficult to conclusively assess why exactly Hunslet Grange was so severely affected by the increase in electricity prices. As stated by a spokesperson of the Y.E.B., the energy authority had always attributed this issue to the all-electric heating system, which was originally designed for gas, adding that Hunslet Grange was also “one of our

370–419 (cf. note 5); Thomas Turnbull, “‘No Solution to the Immediate Crisis’: The Uncertain Political Economy of Energy Conservation in 1970s Britain”, *Contemporary European History*, vol. 31, 2022, 579–592; Wilson, “History”, 44–71 (cf. note 5).

<sup>49</sup> See Report of Director 1982, 6 (cf. note 15).

<sup>50</sup> HGHAG, *Hunslet Grange*, 3 (cf. note 15); mentioned also in *ibid.*, n. p. (Summary and Recommendation).



**Figure 1:** Average deflated UK household fuel price indices (2009 = 100).

Source: Palmer, Cooper, *Energy Fact File 2011*, Table 3d, 66 (cf. note 3).

biggest domestic users”.<sup>51</sup> Both the inadequate heating system and the overall high demand due to the size of the estate could, thus, have had an influence on the extent to which Hunslet Grange was vulnerable to changes in electricity prices.

- 21 Even though Hunslet Grange was particularly notorious in Leeds for its high energy costs, the housing estate was far from alone with its expensive electric central heating. The Department of Energy was also aware of the costs associated with this form of heat provision. A dossier by the Department from 1978, for example, stated that electricity, whether it was central heating or individual fan heaters, was the most expensive form of heating.<sup>52</sup> While the Department of Energy was reluctant to advise against the use of electric heating, it recommended that electric heating systems should henceforth only be installed in buildings that were “specifically”<sup>53</sup> constructed for this purpose. The Department

of Energy’s recommendation is significant in two ways: firstly, it expresses an awareness of the connection between the installation of an electric heating system and the nature of the buildings in which it is installed. Secondly, the recommendation is notable because electric central heating systems, which were easy and cheap to install, were not uncommon until then, especially in social housing. According to an internal letter from National Fuel Poverty Forum, an alliance of more than 17 affiliated voluntary organisations founded in 1977,<sup>54</sup> in the decade from 1964 to 1974 about one-third of all new social housing was fitted with some form of electric space heating; by 1978 the number of social housing buildings with electric heating systems in England and Wales combined was over 900,000.<sup>55</sup>

<sup>51</sup> Ibid., Appendix 1, 4.

<sup>52</sup> See TNA, EG 18/70, Annex VI. Other Issues [1978].

<sup>53</sup> Id.

<sup>54</sup> See TNA, AST 36/840, National Fuel Poverty Forum. A Note on the Aims and Objectives of the Forum, 16<sup>th</sup> June 1978.

<sup>55</sup> TNA, AST 36/840, National Fuel Poverty Forum Seminar, 8<sup>th</sup> December [1978], 2; see also, Boardman, *Cost of Warmth*, 16–20 (cf. note 13); Boardman, *Fuel Poverty*, 20, 25 (cf. note 1).

- 22 To sum up, two aspects came together that made heating fundamentally expensive for the residents of Hunslet Grange: The housing estate had one of the most expensive forms of central heating and it was installed despite the housing estate had never been planned for this system of heat provision. According to the final report of the Housing Department in 1982, these technical and planning errors also entailed “human cost[s]”.<sup>56</sup> For although the choice of building and heating system was beyond the control of the tenants, especially in social housing, which was determined by the local governments plans, it was the residents of Hunslet Grange who ultimately had to pay the price for these wrong decisions.
- 23 A major part of this ‘human cost’ in Hunslet Grange was that some of its residents were faced with the problem of falling into arrears with the energy authorities, i.e., getting into debt, and risking having their energy supply cut off, because of the high energy costs.<sup>57</sup> Or, in the words of experts and representatives within politics, social sciences, and the voluntary sector at the time: they ran the risk of falling into or living in ‘fuel poverty’. While the notion of fuel poverty – and ultimately the question of whether or not a household was falling into or living in it – was gaining particular momentum in the 1970s, it was not least tenants of social housing estates like Hunslet Grange that increasingly became of interest to social scientists in the years that followed.
- 24 In Paul Richardson’s survey *Fuel Poverty. A Study of Fuel Expenditure Among Low Income Council Tenants*, conducted in 1976 and published in 1978, Hunslet Grange even served as one of the case studies to investigate the proportion of the income households with low incomes were spending on energy and to shed light on the various social problems that arose from it. In tune with the findings of the Family Expenditure Survey (FES) of 1976, which had already shown that low-income households in Britain were more affected by rising energy costs than
- high-income households, Richardson’s survey showed how the rise of energy prices in the 1970s led to significant social inequalities felt by low-income households like those living in Hunslet Grange. According to Richardson, about ten per cent of the 127 interviewed residents were actually living in fuel poverty–i.e., the “situation where, following recent price increases, low income consumers may not have sufficient resources to meet the cost of the fuel they need for heating, lighting and cooking”.<sup>58</sup> The other residents, though still experiencing hardship because of their energy costs, managed to bypass the risk of falling into fuel poverty through a number of coping strategies (e. g. by using the electric central heating less or not at all or by using alternative sources of heating like paraffin heaters).<sup>59</sup> Although all of the 127 households he interviewed had limited financial resources–compared to the national average of £82.30, the weekly income in Hunslet Grange averaged £40<sup>60</sup>–there were differences in the extent to which residents were affected by high energy costs. In addition to the size of the flat (which can depend on the number of household members, among other factors), it was employment and income that, according to Richardson, determined the overall energy consumption of households in Hunslet Grange and thus the energy costs they incurred.<sup>61</sup>
- 25 Following his analysis, the groups most at risk of falling into fuel poverty were pensioners, single or lone parents and their children, and families whose heads were unemployed, sick, or disabled. All three groups had in common that they were increasingly coming into public focus in the 1970s as parts of society that had low financial means, i.e., had a low income and therefore had to spend a proportionally higher share of their income on energy costs. According

<sup>56</sup> Report of Director 1982, 6 (cf. note 15).

<sup>57</sup> See HGHA, *Hunslet Grange*, n. p. (Summary and Recommendation), 1–12 (cf. note 15); Report of Director 1982, 2, 4–6, 11 (cf. note 15).

<sup>58</sup> Paul Richardson, *Fuel Poverty. A Study of Fuel Expenditure Among Low Income Council Tenants* (York: Department of Social Administration and Social Work, University of York, 1978), 9.

<sup>59</sup> See *ibid.*, 31–40.

<sup>60</sup> See *ibid.*, 27.

<sup>61</sup> See the tables on average energy costs per housing unit, family type and employment status at *ibid.*, 34–36.



to Richardson’s study, households in Hunslet Grange whose weekly income was £20 spent about 13.12 per cent, and those whose weekly income was between £21 and £35 spent about 11.17 per cent of their net disposable income on energy costs.<sup>62</sup> In contrast, for those households whose weekly income was around £46 to £60, the proportion spent on energy costs took up 5.73 per cent of their net disposable income, and for those whose weekly income was around £60 to £75, only 3.66 per cent was spent on energy.<sup>63</sup> At the same time, the three groups also belonged to those sections of the population that might be expected to have a higher energy consumption in their everyday life: be it because they were often at home, like pensioners, the unemployed, people with illnesses or disabilities, and homemakers; or because they had larger dwellings and thus more space to heat overall, applying particularly to households with several members.<sup>64</sup>

26 Even though Richardson’s survey was, at the time of its publication in 1978, part of a growing body of studies on the issue of fuel poverty, his research is symptomatic of the limited knowledge available about the connection between poverty and energy costs in 1970s Britain. On a local level, this is illustrated by the fact that Richardson’s survey came about at the request of Barbara Craig, a social worker in Hunslet Grange, who had increasingly encountered the problems of fuel debts and disconnections during her work, ultimately coming to believe there was a need for further investigation into the issue.<sup>65</sup> On a national level, a series of documents from state authorities such as the Department of Energy show that the government was still in the process of trying to understand fuel poverty at the end of the 1970s. According to internal

documents of the Department of Energy, there was a lack of a “clear [comprehensive] definition and [systematic] analysis [emphasis in the original, DSA]”<sup>66</sup> of the issue, which is why discussions about government measures to combat it were at a “formative stage”.<sup>67</sup> The lack of such a ‘comprehensive’ definition and ‘systematic’ analysis, and the fact that government action was only at a ‘formative stage’, seem to be one of the main reasons why surveys like Richardson’s were carried out in the first place. By assessing the groups that were affected by it and by determining the reasons why and extent to which they were affected, Richardson’s and other studies on fuel poverty helped to establish energy consumption and the associated costs as a new and distinct social problem and to press the government for appropriate solutions to it.<sup>68</sup>

That there was a lack of such appropriate solutions at the time becomes clear when one looks at the example of Hunslet Grange’s residents. According to the Housing Department’s final report in 1982, different schemes were tried out in the mid-1970s in co-operation with the Y.E.B. to help affected residents pay their energy bills. In addition to so-called ‘heating additions’ that the Supplementary Benefits Commission paid out to recipients of supplementary benefits under “exceptional circumstances”<sup>69</sup>—such as households “who incur extra heating costs because they are suffering from ill health or disability or who live in accommodation that is

<sup>62</sup> Ibid., 44. For the British context, the FES showed that households with a weekly income of £15 to £20 spent about 12.4 per cent of their income on energy costs, while households with a weekly income of over £150 to £200 spent only 3.9 per cent. See Department of Energy, *Family Expenditure Survey. Expenditure on Fuels* (London 1976), 3–6, 8f.

<sup>63</sup> See Richardson, *Fuel Poverty*, 44 (cf. note 58).

<sup>64</sup> For this paragraph see *ibid.*, 30–48, 50.

<sup>65</sup> See *ibid.*, 10; WYAL, LLD8/2/2/9/348, Annex. Letter from Barbara Craig from St. Mary’s Hunslet Parish Church to Councillor Peter Sparling, 4<sup>th</sup> August 1976, Nr. 12.1–12.2.

<sup>66</sup> TNA, POWE 14/2851, Letter from G. H. Hadley to Mr Pash, Mr Mitchelmore, Mr Gallihawk, re. Fuel Poverty, 26<sup>th</sup> January 1979, Annex. Fuel Poverty and Government Assistance.

<sup>67</sup> TNA, EG 18/71, Fuel Costs and the Poor. Current Government Action, undated [1979].

<sup>68</sup> Further research is required on the historical origins of the fuel poverty concept, its use, and the relevance it gained in the 1970s. Such a ‘historicisation’ of the concept of fuel poverty poses a central objective of a research project by the author on “Fuel Poverty and the Crisis of Welfare in Western Europe, 1970s–1980s”, which started under the supervision of Prof Dr Melanie Arndt in April 2023 at the Albert Ludwig University in Freiburg in Breisgau, Germany.

<sup>69</sup> TNA, EG 18/71, House of Commons, Fuel Bills, 23<sup>rd</sup> February 1979, 862.; TNA, POWE 14/2851, Supplementary Benefits Commission 1977 Report. Chapter 10 (Heating), 67.

difficult to heat”<sup>70</sup>–, fortnightly payment notices and a “weekly payment office”<sup>71</sup> were set up by the local government in Leeds to mitigate the difficulty of paying quarterly. As stated in a letter by Barbara Craig to Councillor Peter Sparling on 4 August 1976, this payment arrangement was “welcomed” by families for whom “quarterly bills can be very difficult” because their bills “can be several times their weekly incomes”.<sup>72</sup> For those families struggling to “pay a bill of all in one”, Craig continued, “the office [...] has shown itself to fulfil a real need”.<sup>73</sup> However, according to the Housing Department’s final report, these schemes provided only “temporary”<sup>74</sup> relief and were, in the case of the payment office, too expensive to run and were abandoned shortly afterwards in September 1976.<sup>75</sup> Similarly, the Heating Action Group criticised the lack of adequate assistance in achieving their objectives, which were formulated on 25 February 1975. Of a total of nine of their objectives, five were dedicated solely to high energy costs and the demand for financial assistance by the local as well as central government in coping with them.<sup>76</sup> The SBC’s heating additions in particular were criticised in the Heating Action Group’s objectives because they were considered too unrealistic and limited in their effectiveness due to the restriction to recipients of supplementary benefits alone.<sup>77</sup>

28 However, financial assistance was not all the Heating Action Group demanded in their objectives, for it alone would not solve the structural problem of the inefficient heating system that burdened residents’ lives daily. Like a

“nightmare”,<sup>78</sup> central heating caused a feeling of “anxiety”<sup>79</sup> and “uneasiness”<sup>80</sup> among the residents. Not only did the heating system entail exorbitantly high costs, but the residents of Hunslet Grange also felt powerless in the face of the electric central heating. This powerlessness was largely due to the fact that the residents lacked not only the necessary knowledge about how their heating system worked but also the (self-)confidence to use it correctly and to control it effectively. As can be seen in the Heating Action Group report from 1976, it was difficult for the residents of Hunslet Grange to assess whether the “complicated system of storage heater intake controls, thermostats, [...] dust flaps and filter”<sup>81</sup> was working properly.

This mistrust was reinforced by the residents’ 29 certainty that their high energy costs for heating were related to the structural defects of the housing estate as a whole and the central heating system in particular. The Heating Action Group stated in their report that the residents of Hunslet Grange were not only penalised by the “unreasonable price increases in electricity”,<sup>82</sup> but also by the “structural faults”<sup>83</sup> of the housing estate and the “badly maintained and possibly inappropriate”<sup>84</sup> central heating. At the same time, the Leeds City Council officials were unable to clarify the situation for the residents. On the contrary, Hunslet Grange residents criticised the inability of the responsible Housing Department to provide them with proper assistance. This is particularly evident in the 1976 Heating Action Group report, in which the residents state that “all systems needing repairs must be reported to the Housing Department, who pass the notice on to the Public Works Department or to the Y.E.B. depending on where it is guessed [emphasis in the original, DSa] the fault lies.”<sup>85</sup> According to the residents, the responsible authorities

<sup>70</sup> TNA, T 227/4937, GPS (FQ) (78) 5 (Second Revise), HM Treasury, Interdepartmental Group on Poverty Studies Sub-Group on Fuel Questions, 17<sup>th</sup> October 1978, 5.

<sup>71</sup> Report of Director 1982, 11 (cf. note 15).

<sup>72</sup> WYAL, LLD8/2/2/9/348, Letter from Craig to Sparling, 4<sup>th</sup> August 1976, Nr. 12.1–12.2 (cf. note 65).

<sup>73</sup> Id.

<sup>74</sup> Report of Director 1982, 11 (cf. note 15).

<sup>75</sup> See id.; WYAL, LLD8/2/2/9/348, Annex. Letter from the Assistant Director B. H. Glover to the Area Manager Mr D. J. Peverell, Tenancy Sub-Committee, 8<sup>th</sup> September 1976, Nr. 15.

<sup>76</sup> HGHA, *Hunslet Grange*, Appendix 2. Hunslet Grange Heating Action Group Objectives (cf. note 15).

<sup>77</sup> See id.

<sup>78</sup> Ibid., 9.

<sup>79</sup> Richardson, *Fuel Poverty*, 49 (cf. note 58).

<sup>80</sup> Ibid., 31.

<sup>81</sup> HGHA, *Hunslet Grange*, 9 (cf. note 15).

<sup>82</sup> Ibid., n. p. (Summary and Recommendation).

<sup>83</sup> Id.

<sup>84</sup> Id.

<sup>85</sup> Ibid., 9.

in the Housing Department were just as clueless in dealing with the heating system as they were, which was why they were unable to assess whether and how the electric central heating was functioning at full capacity.<sup>86</sup>

30 For the residents of Hunslet Grange, however, this had far-reaching consequences, especially when it came to protecting themselves against the high energy costs. A large proportion of the households Richardson interviewed managed to avoid living in fuel poverty precisely because they adopted practices in their daily lives to keep costs within affordable limits. Apart from the use of alternative heating methods (such as paraffin stoves) and the restriction of their general expenditure, it was the adaptation of “low heating standards”<sup>87</sup> that received particular attention from social scientists like Richardson. The residents of Hunslet Grange not only had to restrict the use of their heating as much as possible, but the strategy of ‘low heating standards’ also meant that the affected households had to endure a certain absence of heat in their homes. According to Richardson’s study, in 1976 about 30 per cent of the households he analysed in Hunslet Grange (32 households) did not use their central heating in winter.<sup>88</sup> This non-usage of central heating at the coldest time of the year is significant because it shows how little control tenants had over the operation of the heating system and the costs it incurred. As the Heating Action Group clearly shows, the residents of Hunslet Grange were well aware that their room for manoeuvre was limited by technical issues—in particular the fundamental link between high energy costs and inefficient heating. They were therefore aware that the only way to effectively reduce costs was to switch off the heating and, if possible, look for alternative sources of heat.<sup>89</sup>

While the residents of Hunslet Grange ultimately 31 felt left alone with the issue of electric central heating and its costs, they were no exception in their powerlessness over central heating and its costs as well as the strategies they adapted to cope with it. According to internal government documents from the Department of Energy, some parts of the population obviously had problems understanding how their electric central heating worked and the costs it generated—not least a consequence of the relative novelty of central heating, which was found in ‘only’ 30 per cent of British households in the 1970s.<sup>90</sup> To inform tenants about how electricity costs were calculated, the Department of Energy developed a leaflet with illustrations and explanations of electricity meters and radiators.<sup>91</sup> Similarly, the adoption of ‘low heating standards’ followed a widespread pattern within British society that received increasing attention in the 1970s. Pensioners in particular came to the attention of the British public in the 1970s as the population group that most extensively lowered their heating standards in order to avoid high energy costs.<sup>92</sup> Several

sources of warmth was finally rendered futile. See Michael Parkin, “Gas Cylinders Ban for Flats”, *The Guardian*, 12/08/1976, 5; Report of Director 1982, 6 (cf. note 15); WYAL, LLD8/2/2/9/348, Annex. West Yorkshire Metropolitan County Council, Letter from Chief Fire Officer to E. W. Stanley, 23<sup>rd</sup> July 1976, Nr. 11; Annex. Letter from the Chairman of the Housing Service Committee to All the Tenants of Hunslet Grange, 13<sup>th</sup> August 1976, Nr. 14.1–14.2.

<sup>90</sup> Compared to almost 80 per cent in 1990 see Office for National Statistics (UK), “Percentage of Households with Central Heating Systems in the UK from 1970 to 2018”, *Statista*. URL: <https://www.statista.com/statistics/289137/central-heating-in-households-in-the-uk/> (accessed 11/10/23).

<sup>91</sup> See TNA, EG 18/70, Letter from Miss J. A. M. Oliver to Mr Monger, [7<sup>th</sup> March] 1978, Annex. Reselling Electricity for Domestic Use, R1 and R2.

<sup>92</sup> See Boardman, *Cost of Warmth*, 7f. (cf. note 13); Boardman, *Fuel Poverty*, 18 (cf. note 1); Ronald Fox, *Warmth and the Elderly* (Mitcham 1975), 3–18; Islington Task Force, Islington Power Action Group, Islington Consumers Group, *Old and Cold in Islington. A Question of Survival* (London 1971), 2–18; Malcolm Wicks, *Old and Cold. Hypothermia and Social Policy* (London: Heinemann, 1978), xii–xv, 1–24; Malcolm Wicks, David Donnison, “Society at Work. Out in the Cold?”, *New Society*, 15/06/1978, 597–599; TNA, EG 2/1609, Steve Cooper, Fuel Poverty in the United Kingdom, 1981, 27–31; TNA, EG 18/70, Heating and the Poor. Policy Recommendations, March 1978, 11; TNA, POWE 14/2851, SBC 1977 Report, 65–67 (cf. note 69).

<sup>86</sup> See *ibid.*, 3f., 8f., 9.

<sup>87</sup> Richardson, *Fuel Poverty*, 30 (cf. note 58).

<sup>88</sup> *Ibid.*, 24, 31.

<sup>89</sup> In 1976, when the Housing Department decided to ban the use of paraffin stoves, an alternative form of heating that was particularly popular and widespread among the residents, citing the fire hazard and the associated risk of collapse of Hunslet Grange, the search for alternative

social science studies published in Britain in the 1970s showed how low the heating standards of the older population could be. According to Malcolm Wicks' study, only “one in ten”<sup>93</sup> of the 1,020 elderly people he studied heated their bedrooms at night and more than half did not heat them at all. According to Wicks, “extremely cold night conditions”<sup>94</sup> were one of the main reasons why the external body temperature of some of the people he interviewed was below the critical limit of 35 degrees in the morning.<sup>95</sup> It was thus not uncommon for the low heating standards to also be accompanied by physical hypothermia, which could pose considerable health risks (arrhythmia, slowing of heart rate, changes in blood pressure, respiratory infections, etc.), especially for elderly people.<sup>96</sup> This focus on the low heating standards of the elderly British population is not to imply that other potentially low-income and vulnerable populations did not restrict their heating behaviour. On the contrary, the study by Paul Richardson in Hunslet Grange, for example, showed that families with young children, sick people or people with disabilities too adopted low heating standards.<sup>97</sup>

### FUEL POVERTY AND THE CRISIS OF BRITISH SOCIAL HOUSING IN THE 1970S

32 Hunslet Grange, with the precarious conditions that led to its demolition in 1983 and the social costs that this entailed for its residents, was not an isolated case. On the contrary, a careful look at the research literature shows that the decline of the housing estate in Leeds is consistent with more general consequences of British housing policy of the 1960s. These include the fact that a number of social housing developments in the

1970s had failed to provide their tenants with the comfort and standard of living they had hoped for, in addition to the fact that low-income households increasingly began to concentrate in such inadequate social housing developments in the 1970s.

Like other housing estates built during the building boom of the 1960s, Hunslet Grange became a “new slum for old slum”<sup>98</sup> in the 1970s.<sup>99</sup> In other words, social housing buildings like the one in Leeds became the very thing they were built to combat: slums. While Hunslet Grange was initially built to provide a modern alternative to the cramped and inadequate living conditions of the old, terraced houses, its residents were now confronted with similar, if not more inadequate, housing conditions. The housing standards were similarly precarious in other industrial-style social housing buildings constructed in the 1960s. For example, both condensation and heating problems were a widespread occurrence and increasingly became the focus of scientific studies and policy measures. According to a study published in 1970 by the Ministry of Housing and Local Government in which the housing situation of the residents of three high-density estates in Leeds, Liverpool, and London was examined, heating, damp, and condensation, were among the central problems of the households surveyed.<sup>100</sup> Some sections of the population could not afford to use their electric central heating and were furthermore confronted with excessive dampness that made whole rooms uninhabitable. According to the survey, “a good many tenants”<sup>101</sup> felt “uncomfortable and a few suffered distress from continual cold or extreme damp or condensation”<sup>102</sup> in the flats. Even if not

<sup>93</sup> Wicks, *Old and Cold*, 38 (cf. note 92).

<sup>94</sup> *Ibid.*, 39.

<sup>95</sup> See *ibid.*, 11.

<sup>96</sup> See Fox, *Warmth*, 3–13 (cf. note 92); Islington Task Force, *Old and Cold*, 5f. (cf. note 92); Wicks, *Old and Cold*, 11 (cf. note 92); TNA, AST 36/840, Meeting with National Fuel Poverty Forum. Background Note. Hypothermia and Room Temperatures, 28<sup>th</sup> June 1978; TNA, EG 2/1609, Cooper, Fuel Poverty, 1981, 28 (cf. note 92).

<sup>97</sup> See Richardson, *Fuel Poverty*, 30f., 49 (cf. note 58); also, Boardman, *Cost of Warmth*, 24 (cf. note 13); TNA, EG 18/70, Heating and the Poor, 19 (cf. note 92).

<sup>98</sup> Holmans, “Housing”, 478 (cf. note 17).

<sup>99</sup> Further research to be undertaken as part of the research project mentioned above (cf. note 68) will include similar ‘failed’ social housing schemes in Britain.

<sup>100</sup> Ministry of Housing and Local Government, *Families Living at High Density. A Study of Estates in Leeds, Liverpool and London* (London: Her Majesty’s Stationary Office, 1970), 36.

<sup>101</sup> *Id.*

<sup>102</sup> *Id.* In addition, excessive dampness in most cases also led to mould growth in the living quarters, for example in Hunslet Grange. See HGHA, *Hunslet Grange*, 6f., 10f., Appendix I, 1–8 (cf. note 15); Report of Director 1982, 12



all social housing built in the 1960s had failed in its objectives, the fact that now at least some projects were bringing their residents discomfort rather than comfort was seen as evidence of a structural problem. According to Alan Holmans, these structural problems reflected a fundamental crisis in social housing in the 1970s.<sup>103</sup> While social housing still had the nimbus of “aspirational housing”<sup>104</sup> in the decades before, it increasingly lost this attribution in the 1970s. The building boom of the 1960s was followed by a “dramatic downturn”<sup>105</sup> in social housing construction, which was expressed, not least, in the fact that the number of housing estates built by local authorities began to decrease drastically.<sup>106</sup>

34 Like the other social housing developments whose failure became apparent in the 1970s, Hunslet Grange developed into a housing estate into which fewer and fewer people wanted to move of their own free will. The term “hard to let”<sup>107</sup> became established and quickly turned into a “contemporary euphemism” for “the reality [...] of a ‘problem estate’”, as John Boughton put it.<sup>108</sup> These ‘problem estates’ with their technical and social deficiencies increasingly became the focus of British public attention, especially from the mid-1970s

(cf. note 15). Beyond Hunslet Grange see TNA, EG 18/71, Condensation and Mould Growth in Dwellings. A Diagnostic Approach to Problem Solving, undated. It is important to note that the occurrence of (extreme) damp and condensation was not exclusively limited to industrial-style social housing buildings but was also present in low-built terraced houses. See Trentmann, Carlsson-Hyslop, “The Evolution” (cf. note 4). Boardman, *Cost of Warmth*, 12f. (cf. note 13); Boardman, *Fuel Poverty*, 11–13 (cf. note 1).

<sup>103</sup> See Holmans, “Housing”, 478 (cf. note 17).

<sup>104</sup> Boughton, *Municipal Dreams*, 3 (cf. note 19).

<sup>105</sup> Dunleavy, *The Politics*, 51 (cf. note 19).

<sup>106</sup> See Boughton, *Municipal Dreams*, 129, 136f., 142–166 (cf. note 19); Dunleavy, *The Politics*, 39–51, 100–103 (cf. note 19); Miles Glendinning, Stefan Muthesius, *Tower Block. Modern Public Housing in England, Scotland, Wales and Northern Ireland* (New Haven/London: Yale University Press, 1994), 307–315; Holmans, “Housing”, 490 (cf. note 17); Peter Shapely, *The Politics of Housing. Power, Consumers and Urban Culture* (Manchester/New York: Manchester University Press, 2007), 53–72, 157–161; Short, *Housing*, 56–58 (cf. note 16).

<sup>107</sup> Boughton, *Municipal Dreams*, 143 (cf. note 19). The final report of the Director of the Housing Department in Leeds spoke of “difficult to let” (Report of Director 1982, 13, cf. note 15).

<sup>108</sup> Boughton, *Municipal Dreams*, 143 (cf. note 19).

onwards: Parts of the population and politicians started to see them as proof that the goals of social housing had largely been missed. The large-scale failure of Hunslet Grange did not go unnoticed by the local public either. On the contrary, the housing estate, its inadequate housing conditions, and high energy costs regularly made the headlines in local newspapers.<sup>109</sup>

The poor reputation ever more attached to the housing estate in Leeds in the 1970s had consequences. The LCC complained about the high vacancy and turnover rates on the estate and had considerable difficulties in finding potential tenants for Hunslet Grange, especially from the mid-1970s onwards.<sup>110</sup> Whereas in previous years admission to a flat had been dependent on a number of criteria, in 1976 the Department of Housing decided to allocate flats in Hunslet Grange to “all groups [emphasis in the original, DSA] of the current housing waiting list”.<sup>111</sup> This new allocation policy became problematic precisely because it led to a ‘residualisation’ of the estate, i.e. a concentration of those, who could not afford a flat elsewhere.<sup>112</sup> Not only did this concentration of less-enabled people contribute to the stigmatisation of social housing as a ‘last resort’ in the longer term, it also meant that more and more low-income and thus extremely vulnerable households moved into Hunslet Grange. In view of the structural deficiencies and the high costs that resulted for the residents, this change of direction by the LCC was particularly problematic: if the affected households did not have sufficient income anyway, they were now allocated to an extremely expensive housing estate.

<sup>109</sup> See Report of Director 1982, 14f., Addendum. Press Cuttings (cf. note 15).

<sup>110</sup> See HGAG, *Hunslet Grange*, 2 (cf. note 15); Report of Director 1982, 12f. (cf. note 15).

<sup>111</sup> WYAL, LLD8/2/2/9/348, Annex. Department of Housing, Area Manager, Hunslet Grange – Allocation, 8<sup>th</sup> October 1976, Nr. 19.1; see also, WYAL, LLD8/2/2/9/348, Annex. Hunslet Grange. Criteria for the Selection of Tenants, undated, Nr. 18.1; WYAL, LLD8/2/2/9/348, Annex. Hunslet Grange, re. Future Letting Strategy, 11<sup>th</sup> December 1979, Nr. 32.1–32.2.

<sup>112</sup> See Boughton, *Municipal Dreams*, 143 (cf. note 19).

36 Thus, it is not surprising that tenants of social housing were prominent among those affected by high energy costs and that they became interesting for social scientists like Paul Richardson working on fuel poverty in the 1970s. For in many respects, two opposing tendencies prevailed that favoured the occurrence of fuel poverty: Structural deficiencies such as inefficient heating systems, high heating costs, and excessive dampness made life and living precarious, expensive, and uncomfortable for the residents of some social housing buildings. However, it was precisely households that could not financially pay for the costs of these structural deficiencies that were pushed into such housing. The condition of the property thus correlated with the likelihood that its tenants would be facing the risk of or actually living in fuel poverty. This correlation between inadequate housing, high heating costs, and low-income households was also brought up by David Green, Secretary of the National Fuel Poverty Forum, in his interim report for Energy Commission Paper 21 in December 1978. According to Green, the disintegration of “areas of industrial decline”,<sup>113</sup> as observed particularly in the northern part of England from the mid-1970s onwards, had led to the creation of a “thermally inefficient housing stock”.<sup>114</sup> Due to the “low rateable values”<sup>115</sup> of these areas, social housing was equipped with “cheap-to-install heating systems and only minimum insulation”,<sup>116</sup> according to Green. By the mid-1970s, as signs of deindustrialisation became evident in the recession of 1973 to 1975, a “population largely of unemployed consumers”<sup>117</sup> was finally confronted with high heating energy costs that they could not afford to pay. Similar to Hunslet Grange, where industrial building methods were used to build fast, big, and cheap, Green’s examples of social housing focused on efficiency while saving money, without reflecting on the longer-term social implications of these decisions.

<sup>113</sup> TNA, EG 18/71, Energy Commission Paper 21, An Interim Commentary from David Green, Secretary of the National Fuel Poverty Forum, 1<sup>st</sup> December 1978, 3.

<sup>114</sup> Id.

<sup>115</sup> Id.

<sup>116</sup> Id.

<sup>117</sup> Id.

The existence of the heating additions, which were necessary in part because many of the supplementary benefits recipients lived in buildings that were difficult to heat, furthermore shows that the state ultimately had to compensate for the costs that it had saved on construction in the short term through long-term subsidies. Thus, the initial emphasis on efficiency and cost reduction in construction led to a situation in which the welfare state ended up having to pay for the shortcomings of its social housing policy.<sup>118</sup>

This is not to suggest that the risk of falling into or living in fuel poverty was limited to social housing in general and social housing developments of the 1960s in particular. On the contrary, several sections of the British population, regardless of their housing type, were hit by the increasing energy costs. As can be seen from the Supplementary Benefits Commission Report of 1977, the government was well aware, for example, that the older housing stock in Britain—both private and public—was also particularly poorly insulated and therefore incurred high energy costs in heating.<sup>119</sup> What weighed particularly heavily in the case of Hunslet Grange and other social housing developments of this kind, however, was the fact that they were actually *new* housing estates. In this context, ‘new’ always meant the possibility of doing things differently than before—an ideal that had initially been at the core of the housing policy of the 1960s and its slum clearance programme.

This fact was particularly well illustrated by the example of Hunslet Grange. While the residents had moved into the housing estate in Leeds at the beginning with ‘high expectations of privacy and comfort’, they complained about their “deplorable living conditions”<sup>120</sup> in the report published by the Hunslet Grange Heating Action Group a few years later. The keyword ‘expectations’ is crucial in this context. Indeed, these complaints are inextricably linked with the expectations and hopes of the residents of Hunslet Grange, who were profoundly

<sup>118</sup> Cf. Boardman, *Cost of Warmth*, 19–21 (cf. note 13).

<sup>119</sup> See TNA, POWE 14/2851, SBC 1977 Report, 66 (cf. note 69).

<sup>120</sup> HGHAG, Hunslet Grange, n. p. (Introduction) (cf. note 15).

disappointed in the 1970s. This disappointment is expressed particularly clearly in the newspaper article in the *Yorkshire Post* of 28 March 1977. In the article, Mrs Naylor explains that five years ago she and her family moved from a terraced house to Hunslet Grange to improve their living and housing conditions (“[to] better ourselves”<sup>121</sup>). While the family initially enjoyed the various amenities advertised by the YDG in its 1968 brochure, by the end of the 1970s they thought they were living in a “dump”.<sup>122</sup> According to Mrs Naylor, it was the desire not to have to give up the standard of living initially gained by the move that kept her and her family at Hunslet Grange.<sup>123</sup>

39 However, the example of Hunslet Grange also shows that this reduction in the living standards of low-income households did not take place without comment or resistance. According to Richardson’s study, there were a number of households in his survey who were not prepared to lower their standard of living to such an extent and to forfeit most of their comfort—either because this was simply below the minimum they could tolerate in terms of cold in their living spaces, or because they were unable or unwilling to adhere to the limits of their budget.<sup>124</sup> While Richardson’s study mainly showed that the residents of Hunslet Grange expressed discontent with their living situation, it is clear from the Heating Action Group’s report that other residents were taking active steps against their precarious living situation. From the mid-1970s, a number of action groups emerged, such as the Hunslet Grange Heating Action Group, which was founded in February 1976 because of the high heating costs.<sup>125</sup> Through various

means of political action—such as writing reports and newspaper articles, holding enquiries and demonstrations—the tenant action groups demanded that Leeds local government take responsibility for the inadequate living conditions and high energy costs. The Heating Action Group set out a list of its key intentions in its manifesto of 25 February 1976, which included campaigning for rapid and effective repairs to ensure an “adequate standard of heating at reasonable cost”<sup>126</sup> in the flats of the housing estate. Furthermore, they demanded that the local authority in Leeds carry out an independent investigation into the heating problems on the estate and make recommendations on how to improve the efficiency of the central heating system and/or use other alternative heating methods. The fact that the action group made these and other demands of the local government was largely due to the fact that it was seen as the responsibility of the local government to ensure “decent living conditions”<sup>127</sup> for the residents of Hunslet Grange, especially in the social housing sector. As the objectives and demands of the Heating Action Group showed, these ‘adequate living conditions’ essentially included guaranteeing the residents of Hunslet Grange an ‘adequate standard’ of warmth and therefore also of comfort in their living conditions.<sup>128</sup>

Thus, the action groups demanded from the local government exactly what the welfare state-supported housing policy of the 1960s had initially dedicated itself to—namely, the guarantee of adequate housing and the improvement of living standards. This expectation on the part of the residents is remarkable for two reasons: It shows that the local government, as the local representative of the state, had failed to guarantee the residents of Hunslet Grange

<sup>121</sup> WYAL, LLD8/2/2/9/348, Annex. “It’s a Poor Life in the All-Electric Alcatraz”, *Yorkshire Post*, 28/03/1977, Nr. 25.1–25.2.

<sup>122</sup> Id.

<sup>123</sup> See id.

<sup>124</sup> Richardson, *Fuel Poverty*, 49 (cf. note 58).

<sup>125</sup> These ‘tenants action groups’ included, according to the Housing Department’s final report, the Tenant’s Association, the Heating Action Group, the Damp Action Group and the Yorkshire Development Tenants Action Group. The first of these action groups was the Tenant’s Association, which had been taking complaints to Leeds Local Authority since 1968, when the first blocks of flats were completed. See Report of Director 1982, 7 (cf. note 15). Not only in Leeds,

but also in other British cities, such tenants action groups were formed to fight against the inadequate housing conditions in social housing. See Shapely, *The Politics* (cf. note 106), which examines this development in detail.

<sup>126</sup> HGHAG, *Hunslet Grange*, Appendix 2. Hunslet Grange Heating Action Group Objectives (cf. note 15).

<sup>127</sup> Ibid., 3.

<sup>128</sup> See *ibid.*, n. p. (Introduction), 1–12, Appendix 2. Hunslet Grange Heating Action Group Objectives; Report of Director 1982, 7–9 (cf. note 15).

the promised improvement in their housing and living standards; but it also demonstrates that the residents of the housing estate felt entitled to demand the fulfilment of their expectations from the local government as the local representative of the state. By expecting the local government to take responsibility for their inadequate living conditions and high energy costs at Hunslet Grange, the action groups were pointing out to Leeds officials that it was the government’s duty to meet their needs for adequate housing and comfort. Both aspects express a change in the expectations that some of the residents of the housing estate in Leeds in the 1970s: Through their political commitment and resistance, they not only showed the local government that the state was not fulfilling its task of ensuring their well-being, but they also showed that they demanded precisely this assurance of their well-being from the state.

## CONCLUSION

41 No one involved in the planning of Hunslet Grange in the 1960s could have imagined that their building project would come to the public’s attention after little more than ten years as an ‘Alcatraz’. And yet it was precisely this metaphor that best captured the feelings of its residents in the 1970s: as if in a prison, the tenants of Hunslet Grange felt “trapped”<sup>129</sup> in their high-cost housing estate. An endeavour that started with ideas and expectations of comfort and higher living standards soon became a heavy burden on its residents, who ultimately had to bear the cost of living in an ‘Alcatraz’, and above all—an *all-electric* one.

42 Using the example of Hunslet Grange in Leeds, this article has shown how social housing in Britain had failed to meet its underlying objectives in the 1970s and how this shortcoming was connected to the emergence of fuel poverty as a political and social issue. The key findings were that politically motivated speed, misconceived efficiency, and economic considerations dominated the social housing policies of the 1960s, and that there was a failure to question the longer-term social

implications of these decisions—which would become visible and tangible a decade later, not least under the guise of fuel poverty.

Two opposing tendencies prevailed in British 43 social housing in the 1970s which favoured the occurrence of fuel poverty among its residents: On the one hand, structural deficiencies such as inefficient heating, inadequate insulation, and excessive dampness in social housing estates such as Hunslet Grange made life precarious, uncomfortable, and expensive for residents; on the other hand, the households who were pushed into such housing estates were precisely the ones who did not have the financial resources to pay the costs of these structural deficiencies. One consequence of these opposing trends was that residents of social housing like Hunslet Grange were confronted with high energy costs they could no longer pay, or, in other words, they were facing the risk of falling into or actually living in fuel poverty.

Against this backdrop, the emergence of fuel 44 poverty served as a symptom of the partial failure of British social housing and thus ultimately of the British state, in whose housing policy the achievement of comfort and higher living standards was proclaimed a central concern. This non-fulfilment in turn collided with the expectation the residents of the Leeds housing estate developed of the state as a ‘welfare guarantor’: After more than two decades in which the British state had made the implementation of welfare measures a core concern of its policies, there was now an expectation that the state would actually guarantee the well-being of its population. The example of the Hunslet Grange action groups showed that this expectation was profoundly disappointed in the 1970s. It was an expression of the epochal upheaval that had accompanied the end of more than two decades of post-war prosperity—two decades in which the standard of living and welfare of large sections of the British population had improved. The emergence of fuel poverty as a political and social issue was symptomatic that this welfare finally entered a crisis in the 1970s.

<sup>129</sup> WYAL, LLD8/2/2/9/348, “It’s a Poor Life”, *Yorkshire Post*, 28/03/1977, Nr. 25.1–25.2 (cf. note 121).



## Bibliographie

### Adams Sean Patrick

“Domestic Storage Problems and Transitions. Coal in Nineteenth-Century America”, in Vanessa Taylor, Heather Chappells (eds.), *Energizing the Spaces of Everyday Life. Learning from the Past for a Sustainable Future* (Munich: RCC Perspectives, 2019), 39–46.

### Arndt Melanie

“The Heat Is On!”, *Springs. The Rachel Carson Center Review*, n° 3, 2023.  
URL: <https://springs-rcc.org/the-heat-is-on/> (accessed 09/10/2023).

### Beckett Andy

*When the Lights Went Out. Britain in the Seventies* (London: Faber & Faber, 2009).

### Bini Elisabetta et al. (eds.)

*Oil Shock. The 1973 Crisis and Its Economic Legacy* (London/New York: I. B. Tauris, 2016).

### Boardman Brenda

*The Cost of Warmth. An Energy Efficient Approach to Overcoming Fuel Poverty* (Bradford: National Right to Fuel Campaign, 1984).

*Fuel Poverty. From Cold Homes to Affordable Warmth* (London/New York: Belhaven Press, 1991).

“Fuel Poverty Is Different”, *Policy Studies*, vol. 12, n° 4, 1991, 30–41.

*Fixing Fuel Poverty. Challenges and Solutions* (London: Earthscan Publications, 2010).

“Fuel Poverty Synthesis. Lessons Learnt, Actions Needed”, *Energy Policy*, vol. 49, 2012, 143–148.

### Bösch Frank, Graf Rüdiger (eds.)

“The Energy Crises of the 1970s”, *Historical Social Research*, vol. 39, n° 4, 2014.

### Bösch Frank, Graf Rüdiger

“Reacting to Anticipations. Energy Crises and Energy Policy in the 1970s. An Introduction”, *Historical Social Research*, vol. 39, n° 4, 2014, 7–21.

### Boughton John

*Municipal Dreams. The Rise and Fall of Council Housing* (London/New York: Verso, 2019).

### Bouvier Yves

“Energy Consumers. A Boundary Concept for the History of Energy”, *Journal of Energy History/Revue d'histoire de l'énergie*, n° 1, 2018.  
URL: [energyhistory.eu/en/node/86](http://energyhistory.eu/en/node/86) (accessed 10/07/2023).

### Bouzarovski Stefan

*Energy Poverty. (Dis)Assembling Europe's Infrastructural Divide* (Cham: Springer, 2018).

### Bouzarovski Stefan et al.

“Energy Poverty Policies in the EU. A Critical Perspective”, *Energy Policy*, vol. 49, 2012, 76–82.

### Bouzarovski Stefan, Petrova Saska

“A Global Perspective on Domestic Energy Deprivation. Overcoming the Energy Poverty–Fuel Poverty Binary”, *Energy Research & Social Science*, vol. 10, 2015, 31–40.

### Bridge Gavin et al. (eds.)

*Energy and Society. A Critical Perspective* (London/New York: Routledge, 2018).

### Brunner Karl-Michael, Mandl Sylvia

“Energy Consumption and Social Inequality. Fuel Poverty in Europe”, in Sigrid Reiter (ed.), *Energy Consumption. Impacts of Human Activity, Current and Future Challenges, Environmental and Socio-Economic Effects* (New York: Nova, 2014), 167–184.

### Calder Barnabas

*Raw Concrete. The Beauty of Brutalism* (London: Penguin Books, 2016).

### Cantle E. F.

“The British Experience of Defects in Non-Traditional and Industrialised Dwellings”, in Niels L. Prak (ed.), *Post-War Public Housing in Trouble. Papers Presented at the Congress ‘Post-War Public Housing in Trouble’, Delft, the Netherlands, 4<sup>th</sup>–5<sup>th</sup> October 1984* (Delft: Delft University Press, 1985), 115–120.

### Chick Martin

*Electricity and Energy Policy in Britain, France and the United States since 1945* (Cheltenham: Edward Elgar, 2007).

### Csiba Katalin (ed.)

*Energy Poverty. Handbook* (Brussels: European Union, 2016)

### Day Rosie et al.

“Conceptualising Energy Use and Energy Poverty Using a Capabilities Framework”, *Energy Policy*, vol. 93, 2016, 255–264.

### Davies Aled et al. (eds.)

*The Neoliberal Age? Britain since the 1970s* (London: UCL Press, 2021).

### Department of Energy

*Family Expenditure Survey. Expenditure on Fuels* (London 1976).

### Department of Environment

*Homes for Today and Tomorrow* (London: Her Majesty's Stationery Office, 1979 [1961]).

### Dunleavy Patrick

*The Politics of Mass Housing in Britain, 1945–1975. A Study of Corporate Power and Professional Influences in the Welfare State* (Oxford: Oxford University Press, 1981).

### Ellis David John

“Pavement Politics. Community Action in Leeds, c. 1960–1990” (Ph.D diss., University of York, 2015).

**Fennell Catherine**

“‘Project Heat’ and Sensory Politics in Redeveloping Chicago Public Housing”, *Ethnography*, vol. 12, n° 1, 2011, 40–64.

**Ferguson Niall et al. (eds.)**

*The Shock of the Global. The 1970s in Perspective* (Cambridge et al.: The Belknap Press of Harvard University Press, 2010).

**Fouquet Roger**

*Heat, Power and Light. Revolutions in Energy Services* (Cheltenham/Northampton: Edward Elgar, 2008).

**Fouquet Roger, Pearson Peter J. G.**

“A Thousand Years of Energy Use in the United Kingdom”, *The Energy Journal*, vol. 19, n° 4, 1998, 1–41.

**Fox Ronald**

*Warmth and the Elderly* (Mitcham 1975).

**Garavini Giuliano**

“Western Europe and the Long Energy Crisis of the 1970s”, in Claudia Hiepel (ed.), *Europe in a Globalising World. Global Challenges and European Responses in the “Long” 1970s* (Baden-Baden: Nomos, 2014), 147–163.

**Glendinning Miles**

*Mass Housing. Modern Architecture and State Power. A Global History* (London et al.: Bloomsbury Visual Arts, 2021).

**Glendinning Miles, Muthesius Stefan**

*Tower Block. Modern Public Housing in England, Scotland, Wales and Northern Ireland* (New Haven/London: Yale University Press, 1994).

**Goodchild Barry, Furbey Robert**

“Standards in Housing Design. A Review of the Main Changes since the Parker Morris Report (1961)”, *Land Development Studies*, vol. 3, n° 2, 1986, 79–99.

**Graf Rüdiger**

*Öl und Souveränität. Petroknowledge und Energiepolitik in den USA und Westeuropa in den 1970er Jahren* (Berlin et al.: De Gruyter, 2014).

**Hayes Nick**

“Making Homes by Machine. Images, Ideas and Myths in the Diffusion of Non-Traditional Housing in Britain 1942–1954”, *Twentieth Century British History*, vol. 10, n° 3, 1999, 282–309.

**Helm Dieter**

*Energy, the State, and the Market. The British Energy Policy since 1979* (Oxford: Oxford University Press, 2004).

**Hobsbawm Eric J.**

*The Age of Extremes. The Short Twentieth Century, 1914–1991* (London: Abacus, 1995).

**Holmans Alan**

“Housing”, in A. H. Halsey, Josephine Webb (eds.), *Twentieth-Century British Social Trends* (Basingstoke et al.: Palgrave Macmillan, 2000), 469–510.

**Hunslet Grange Heating Action Group (HG HAG)**

*Hunslet Grange. An Experiment and Its Victims* (Leeds 1976).

**Hutchinson Andrew**

“Changing Leeds. The Rise and Fall of Hunslet’s Leek Street Flats”, *Yorkshire Evening Post*, 02/04/2020. URL: <https://www.yorkshireeveningpost.co.uk/heritage-and-retro/retro/changing-leeds-the-rise-and-fall-of-hunslets-leek-street-flats-2524323> (accessed 15/01/24).

**Islington Task Force, Islington Power Action Group, Islington Consumers Group**

*Old and Cold in Islington. A Question of Survival* (London 1971).

**Judt Tony**

*Postwar. A History of Europe since 1945* (New York: The Penguin Press, 2005).

**Kander Astrid, Malanima Paolo, Warde Paul**

*Power to the People. Energy in Europe over the Last Five Centuries* (Princeton/Oxford: Princeton University Press, 2013).

**Kefford Alistair**

“Housing the Citizen-Consumer in Post-War Britain. The Parker Morris Report, Affluence and the Even Briefer Life of Social Democracy”, *Twentieth Century British History*, vol. 29, n° 2, 2018, 225–258.

**Kennedy Liam**

“‘The People’s Turf’. Turf in Ireland in the Nineteenth and Twentieth Centuries”, in Richard W. Unger (ed.), *Energy Transitions in History. Global Cases of Continuity and Change* (Munich: RCC Perspectives, 2013), 25–30.

**Langhamer Claire**

“The Meanings of Home in Postwar Britain”, *Journal of Contemporary History*, vol. 40, n° 2, 2005, 341–362.

**Lowe Rodney**

*The Welfare State in Britain since 1945* (Basingstoke et al.: Palgrave Macmillan, 2005 [1993]).

**Malpass Peter**

*Housing and the Welfare State. The Development of Housing Policy in Britain* (Basingstoke et al.: Palgrave Macmillan, 2005).

**Mazower Mark**

*Dark Continent. Europe’s Twentieth Century* (New York: Alfred A. Knopf, 1998).

**Ministry of Housing and Local Government**

*Report of the Inquiry into the Collapse of Flats at Ronan Point, Canning Town* (London: Her Majesty’s Stationary Office, 1968).

*Families Living at High Density. A Study of Estates in Leeds, Liverpool and London* (London: Her Majesty’s Stationary Office, 1970).

**Moore Harrison Abigail, Sandwell Ruth W. (eds.)**

*In a New Light. Histories of Women and Energy* (Montreal et al.: McGill-Queen’s University Press, 2021).

**Morgan Kenneth O.**

“Britain in the Seventies – Our Unfinest Hour?”, *Revue Française de Civilisation Britannique/French Journal of British Studies*, vol. XXII, 2017, 1–17.

**National Consumer Council**

*Paying for Fuel. Report by the National Consumer Council to the Secretary of State for Prices and Consumer Protection* (London: Her Majesty’s Stationery, Office 1976).

**Office for National Statistics (UK)**

“Percentage of Households with Central Heating Systems in the UK from 1970 to 2018”, *Statista*. URL: <https://www.statista.com/statistics/289137/central-heat-ing-in-households-in-the-uk/> (accessed 11/10/23).

**Oldenziel Ruth, Hård Mikael**

*Consumers, Tinkerers, Rebels. The People Who Shaped Europe* (London: Palgrave Macmillan, 2013).

**Oram Richard D.**

“Social Inequality in the Supply and Use of Fuel in Scottish Towns c. 1750–1850”, in Geneviève Massard-Guilbaud, Richard Rodger (eds.), *Environmental and Social Justice in the City. Historical Perspectives* (Cambridge: The White Horse Press, 2011), 211–231.

**Pallua Irene**

“A Healthy Climate for Swiss Homes. The Medicalisation of Indoor Climate in the Late 19th C.”, *Journal of Energy History/Revue d’histoire de l’énergie*, n° 7, 2022. URL: [energyhistory.eu/en/node/295](https://energyhistory.eu/en/node/295) (accessed 09/10/2023).

**Palmer Jason, Cooper Ian**

*Great Britain’s Housing Energy Fact File* (London: Department of Energy and Climate Change, 2011).

*United Kingdom Housing Energy Fact File* (London: Department of Energy and Climate Change, 2013).

**Parkin Michael**

“Fire Hazard in 1,250 Flats”, *The Guardian*, 30/06/1976, 24.

“Council ‘Risks Explosions in Flats’”, *The Guardian*, 16/07/1976, 26.

“Gas Cylinders Ban for Flats”, *The Guardian*, 12/08/1976, 5.

**Pemberton Hugh et al. (eds.)**

*Reassessing 1970s Britain* (Manchester/New York: Manchester University Press, 2013).

**Ravetz Alison**

“Problem Housing Estates in Britain. The Cases of Quarry Hill Flats and Hunslet Grange, Leeds”, in Niels L. Prak (ed.), *Post-War Public Housing in Trouble. Papers Presented at the Congress ‘Post-War Public Housing in Trouble’, Delft, the Netherlands, 4<sup>th</sup>–5<sup>th</sup> October 1984* (Delft: Delft University Press, 1985), 43–54.

**Richardson Paul**

*Fuel Poverty. A Study of Fuel Expenditure Among Low Income Council Tenants* (York: Department of Social Administration and Social Work, University of York, 1978).

**Rudge Jane**

“Coal Fires, Fresh Air and the Hardy British. A Historical View of Domestic Energy Efficiency and Thermal Comfort in Britain”, *Energy Policy*, vol. 49, 2012, 6–11.

**Russell S.**

“Writing Energy History. Explaining the Neglect of CHP/DH in Britain”, *The British Journal for the History of Science*, vol. 26, n° 1, 1993, 33–54.

**Sandbrook Dominic**

*State of Emergency. The Way We Were. Britain 1970–74* (London: Penguin Books, 2011).

*Seasons in the Sun. The Battle for Britain. 1974–1979* (London: Penguin Books, 2012).

**Sandwell Ruth W.**

“How Households Shape Energy Transitions. Canada’s Great Transformation”, in Vanessa Taylor, Heather Chappells (eds.), *Energizing the Spaces of Everyday Life. Learning from the Past for a Sustainable Future* (Munich: RCC Perspectives, 2019), 23–30.

**Shapely Peter**

*The Politics of Housing. Power, Consumers and Urban Culture* (Manchester/New York: Manchester University Press, 2007).

**Short John R.**

*Housing in Britain. The Post-War Experience* (London/New York: Methuen, 1982).

**Simmonds Alan**

“Raising Rachman. The Origins of the Rent Act 1957”, *The Historical Journal*, vol. 45, n° 4, 2002, 843–868.

**Taylor Vanessa, Chappells Heather**

“Introduction”, in Vanessa Taylor, Heather Chappells (eds.), *Energizing the Spaces of Everyday Life. Learning from the Past for a Sustainable Future* (Munich: RCC Perspectives 2019), 5–10.

**Thane Pat**

*Divided Kingdom. A History of Britain. 1900 to the Present* (Cambridge/New York: Cambridge University Press, 2018).

**Thomson Harriet, Snell Carolyn**

“Quantifying the Prevalence of Fuel Poverty across the European Union”, *Energy Policy*, vol. 52, 2013, 563–572.

TNA, AST 36/840, National Fuel Poverty Forum. A Note on the Aims and Objectives of the Forum, 16<sup>th</sup> June 1978.

TNA, AST 36/840, Meeting with National Fuel Poverty Forum. Background Note. Hypothermia and Room Temperatures, 28<sup>th</sup> June 1978.

TNA, AST 36/840, National Fuel Poverty Forum Seminar, 8<sup>th</sup> December [1978].

## SALM | LIVING IN THE “ALL-ELECTRIC ALCATRAZ”: FUEL POVERTY IN 1970S BRITISH SOCIAL HOUSING

- TNA, EG 2/1609, Steve Cooper, Fuel Poverty in the United Kingdom, 1981.
- TNA, EG 18/70, Annex VI. Other Issues [1978].
- TNA, EG 18/70, Heating and the Poor. Policy Recommendations, March 1978.
- TNA, EG 18/70, Letter from Miss J. A. M. Oliver to Mr Monger, [7<sup>th</sup> March] 1978, Annex. Reselling Electricity for Domestic Use, R1 and R2.
- TNA, EG 18/71, Condensation and Mould Growth in Dwellings. A Diagnostic Approach to Problem Solving, undated.
- TNA, EG 18/71, Energy Commission Paper 21, An Interim Commentary from David Green, Secretary of the National Fuel Poverty Forum, 1<sup>st</sup> December 1978.
- TNA, EG 18/71, Fuel Costs and the Poor. Current Government Action, undated [1979].
- TNA, EG 18/71, House of Commons, Fuel Bills, 23<sup>rd</sup> February 1979.
- TNA, POWE 14/2851, Letter from G. H. Hadley to Mr Pash, Mr Mitchelmore, Mr Gallihawk, re. Fuel Poverty, 26<sup>th</sup> January 1979, Annex. Fuel Poverty and Government Assistance.
- TNA, POWE 14/2851, Supplementary Benefits Commission 1977 Report. Chapter 10 (Heating).
- TNA, T 227/4937, GPS (FQ) (78) 5 (Second Revise), HM Treasury, Interdepartmental Group on Poverty Studies Sub-Group on Fuel Questions, 17<sup>th</sup> October 1978.
- Trentmann Frank**  
“Getting to Grips with Energy. Fuel, Materiality and Daily Life”, *Science Museum Group Journal. Special Issue. The Material Culture of Energy*, 2018.  
URL: <https://dx.doi.org/10.15180/180901> (accessed 09/02/24).
- Trentmann Frank, Carlsson-Hyslop Anna**  
“The Evolution of Energy Demand in Britain. Politics, Daily Life, and Public Housing, 1920s–1970s”, *The Historical Journal*, vol. 61, n° 3, 2018, 807–839.
- Turnbull Thomas**  
“From Paradox to Policy. The Problem of Energy Resource Conservation in Britain and America, 1865–1981” (Ph.D diss., University of Oxford, 2017).  
“‘No Solution to the Immediate Crisis’: The Uncertain Political Economy of Energy Conservation in 1970s Britain”, *Contemporary European History*, vol. 31, 2022, 579–592.
- Weiler Peter**  
“The Rise and Fall of the Conservatives’ ‘Grand Design for Housing’, 1951–1964”, *Contemporary British History*, vol. 14, n° 1, 2000, 122–150.
- Wicks Malcolm**  
*Old and Cold. Hypothermia and Social Policy* (London: Heinemann, 1978).
- Wicks Malcolm, Donnison David**  
“Society at Work. Out in the Cold?”, *New Society*, 15/06/1978, 597–599.
- Wilson John Campbell**  
“A History of the UK Renewable Energy Programme, 1974–88. Some Social, Political, and Economic Aspects” (Ph.D diss., University of Glasgow, 2012).
- Wright Rebecca**  
“68 Degrees. New York City’s Residential Heat and Hot Water Code as an Invisible Energy Policy”, *Environmental History*, vol. 28, n° 4, 2023, 711–727.
- WYAL, LC/LM/8/23, YDG. Brochure for Leek Street Development Hunslet, City of Leeds 1968.
- WYAL, LLD8/2/2/9/348, Annex. Letter from Barbara Craig from St. Mary’s Hunslet Parish Church to Councillor Peter Sparling, 4<sup>th</sup> August 1976, Nr. 12.1–12.2.
- WYAL, LLD8/2/2/9/348, Annex. Letter from the Chairman of the Housing Service Committee to All the Tenants of Hunslet Grange, 13<sup>th</sup> August 1976, Nr. 14.1–14.2.
- WYAL, LLD8/2/2/9/348, Annex. Letter from the Assistant Director B. H. Glover to the Area Manager Mr D. J. Peverell, Tenancy Sub-Committee, 8<sup>th</sup> September 1976, Nr. 15.
- WYAL, LLD8/2/2/9/348, Annex. Hunslet Grange. Criteria for the Selection of Tenants, undated, Nr. 18.1
- WYAL, LLD8/2/2/9/348, Annex. Department of Housing, Area Manager, Hunslet Grange – Allocation, 8<sup>th</sup> October 1976, Nr. 19.1.
- WYAL, LLD8/2/2/9/348, Annex. “It’s a Poor Life in the All-Electric Alcatraz”, *Yorkshire Post*, 28/03/1977, Nr. 25.1–25.2.
- WYAL, LLD8/2/2/9/348, Annex. Hunslet Grange, re. Future Letting Strategy, 11<sup>th</sup> December 1979, Nr. 32.1–32.2.
- YFA/NEA, YFA 5564, Peter Bradford, Roger Coward, *Community Builder. A Shepherd Building Group Film* (York: World Wide Press 1968).  
URL: <https://www.yfanefa.com/record/10953> (accessed 18/07/22), 18 min 07 s.
- Zylberg David**  
“Fuel Prices, Regional Diets and Cooking Habits in the English Industrial Revolution (1750–1830)”, *Past & Present*, n° 299, 2015, 91–122.