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'It Had to Happen Sometime': Mass Observing the Everyday Responses to Chernobyl



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'It Had to Happen Sometime': Mass Observing the Everyday Responses to Chernobyl

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# **Terminology and Abbreviations**

MO – Mass observation

The term 'state' will refer to both government and the scientific authorities.

The term technocracy will be used to describe the interlinking of state policy and technical advancement particularly in regards to nuclear power.

#### Introduction

"[Chernobyl] has painfully affected Soviet people and caused the anxiety of the international public. For the first time ever, we encountered in reality such a sinister force as nuclear energy that has escaped control."

- Mikhail Gorbachev, Soviet Union President (1986)

On the night of April 26<sup>th</sup> 1986, the world witnessed one of the most unprecedented disasters in the history of nuclear power generation. What began as a routine safety test in the Chernobyl plant, quickly escalated into a chain reaction of explosions blowing the roof off Reactor 4. With the core exposed, and graphite blocks on fire, radioactive material was spewed into the atmosphere, forming a cloud that was dispersed along the northern hemisphere. However, the disaster did not immediately burst into the global headlines. Downplaying the severity of the explosion, the USSR only informed the International Atomic Energy Agency (IAEA) two days later but mounting international pressures, President Gorbachev finally acknowledged the true scale in his international address on May 14<sup>th</sup>. From then on, this event was etched into history as a crisis that transcended international borders, cultivated nuclear anxiety and forever changed global public perceptions of nuclear energy.

Despite the Chernobyl disaster being deeply engrained into global memory, minimal studies have attempted to explore the international response; particularly that of the west and Britain. Until recently, historians were mainly of the opinion that Chernobyl's history only exists in the countries that were directly affected by the radioactive fallout. Like Karena Kalmbach, this study intends to demonstrate that whilst the global west experienced relatively low levels of radioactive fallout, the emotional and discursive ramifications deserve considerable scholarly attention. More specifically, this study will examine the immediate reactions of the 'ordinary' English citizen with respect to both individual experience and collective dynamics. The evidential basis will be situated in Mass Observation's 1986 directive which asked observers to recall their personal reactions to major events of that year

<sup>&</sup>lt;sup>1</sup> This quote was taken from Mikhail Gorbachev, "First Address on Chernobyl", address on Soviet television, (May 14, 1986), <a href="https://soviethistory.msu.edu/1985-2/meltdown-in-chernobyl/meltdown-in-chernobyl-texts/first-address-on-chernobyl/">https://soviethistory.msu.edu/1985-2/meltdown-in-chernobyl/meltdown-in-chernobyl-texts/first-address-on-chernobyl/</a>.

<sup>&</sup>lt;sup>2</sup> Kalmbach, Karena. "Introduction", in *The Meanings of a Disaster: Chernobyl and Its Afterlives in Britain and France*, (New York, Oxford: Berghahn Books, 2020), pp. 1-18. (p.4).

as well as those around them.<sup>3</sup> Therefore, this study will be the first of its kind to conduct a substantial analysis of British written responses in the context of Chernobyl.

The early 1980s had witnessed a resurgence of interest in nuclear issues and antnuclear activism among the British public. Cold war tensions, exacerbated by the Soviet
Invasion of Afghanistan (1978), the deployment of intermediate-range nuclear missiles in
Europe and President Raegan's confrontational rhetoric, continued to spread anxieties about a
global nuclear conflict. After her election in 1979, Margaret Thatcher appeared deeply
concerned with the energy crisis exclaiming in a letter written in 1980 that "Nuclear power,
and a strong nuclear industry, are therefore essential to the UK's energy policy". Yet, a
technocratic state did not always ensure public support. The accident at the Three-mile Island
nuclear power station in the United State, alongside the Pochin and Windscale inquiries
carried out in Britain in the late 1970s, had significantly raised awareness about the dangers
of nuclear power.

The aftermath of Chernobyl thus typified the peak of anxieties within developing British nuclear culture in the late 1980s. Deeply embedded into the 'observers' writing is a multifaceted emotional response, encapsulating feelings of: anger, resentment, fear, and shock towards the horrors inflicted on the nearby population as well as the transnational nature of the subsequent fallout. Whilst these emotions were generally shared, they were often channelled into different grievances. Furthermore, there is some evidence to suggest that there was regional dimension. This dissertation will argue that the everyday reaction to Chernobyl can be characterised into three schools of thought: a collective disenchantment with the state's management of nuclear affairs, a noticeable distrust in nuclear technology and the escalation of existential dread which often veered into doomsday discourse. Adopting a 'bottom up' approach not only uncovers the emotional narratives of individuals who were not immediately affected by nuclear disasters but also provides insight into how the relationship between publics, governments and scientific authorities can become increasingly disengaged as a result. Chernobyl proved to the everyday citizen that nuclear power was not a

<sup>&</sup>lt;sup>3</sup> August 1986 Directive Part II, 20A, Mass Observation Archive, University of Sussex Special Collections, (Accessed 20<sup>th</sup> April), <a href="https://www-massobservationproject-amdigital-co-">https://www-massobservationproject-amdigital-co-</a>

uk.bris.idm.oclc.org/Documents/Detail/1986-autumn-directive-part-1/2703709 (hereafter MOA).

<sup>&</sup>lt;sup>4</sup> Jonathan Hogg, "Ch. 6 - Abused technology': Extreme Realism, 1975-1989'", in *British Nuclear Culture:* Official and Unofficial Narratives in the Long 20<sup>th</sup> Century, (Bloomsbury Publishing Plc, 2016), p. 133-158.

<sup>&</sup>lt;sup>6</sup> Margaret Thatcher, Letter to Terence Higgins MP (nuclear power), (Jan 16, 1980), Prime Minister Private Office files [declassified 2010] - https://www.margaretthatcher.org/document/115815.

feat of technological brilliance, but a technology that possessed the uncontrollable capacity to engender catastrophic consequences of which the full extent is still not known today.

#### Historiography

#### Nuclear power Historiography

By conducting a Chernobyl study, this dissertation will contribute to the unofficial histories of British civil nuclear power and nuclear disasters. Within more grand narrative approaches, considerably more attention has been delegated to institutional forces and technological processes. Simon Taylor presents a comprehensive story of nuclear power in Britain, exploring the fluctuating relationship between the entrepreneurial state and the development of the British AGR reactor. However, he overlooks any public sentiment towards the technonationalist push for nuclear superiority. Drawing from Government papers, Charles N Hill also conducts a study of the technical history of the British atomic Energy programme.<sup>8</sup> Despite dedicating a chapter to the 1957 Windscale accident, he only provides a scientific explanation thus neglecting any public experiences. Nuclear power studies with a narrower scope tend to differ. For example, Christine Wall's utilises oral interviews to provide personal insight into the construction conditions of Sizewell A power station and the social effects on the nearby town. 9 Moreover, Eva Oberloskamp analyses the transnational connections within social opposition to civil nuclear power in 1970s with appreciable attention given to Windscale. 10 This dissertation intends to add to nuclear power historiography specifically in the 1980s, using MO responses to illustrate how Chernobyl heightened tensions towards state-led nuclear power.

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<sup>&</sup>lt;sup>7</sup> Simon Taylor, The Rise and Fall of Nuclear Power in Britain: a History.

<sup>&</sup>lt;sup>8</sup> Charles, N Hill, Atomic Empire, AN: A Technical History Of The Rise And Fall Of The British Atomic Energy Programme, (World Scientific Publishing Company, 2013).

<sup>&</sup>lt;sup>9</sup> Christine Wall, "Nuclear Prospects': The Siting and construction of Sizewell A Power Station, 1957-1966", in contemporary British History, 33:2, (2018).

<sup>&</sup>lt;sup>10</sup> Eva Oberloskamp, "Ambiguities of transnationalism: Social Opposition to the Civil Use of Nuclear Power in the United Kingdom and in West Germany during the 1970s", in European Review of History: Revue européenne d'histoire, 29:3, (2022).

## Nuclear Culture Historiography

Another exception to 'top-down approaches' has been the growing field on 'British nuclear culture', a term first coined by Kirk Willis in his foundational work on the British collective consciousness in the post-war era. 11 Nevertheless, in works on the 1980s, emphasis is primarily placed on the cultural reactions to the threat of the bomb. Jonathan Hogg's chapter, "Abused Technology": Extreme realism, explores the medial representations of the nuclear technology and how they contributed to increased nuclear anxiety in 1980s Britain. 12 Despite helping to establish the importance of unofficial narratives in nuclear scholarship, Hogg dedicates only 4 pages to the public inquiries into nuclear power and mentions Chernobyl briefly. Similarly, Daniel Cordle's investigation of British nuclear fiction leads him to argue for a distinctive 1980s nuclear culture characterised by renewed fears of a global conflict.<sup>13</sup> Admittedly, this dissertation will reveal the intertwining of threats posed by nuclear energy and the nuclear bomb, but should more consideration also be shown to fears of radioactive leaks and another disaster like Chernobyl? Veering from this trend is historian, Lucie de Carvalho. Her article explores the rise of public environmental anxiety (after the Windscale accident) and its impact on state-sponsored television footage used to communicate the safety of nuclear power between 1956-1982. 14 Although, histories that investigate nuclear power through cultural modes miss the agency of individual narratives and the emotions within them. Therefore, this study will use the MO responses to construct a history of the everyday reaction to Chernobyl and will show how emotions intersected with perceptions of nuclear power and the perceived incompetence of the state to manage nuclear emergencies

# Chernobyl Historiography

Most Chernobyl histories focus on the series of events that directly led to the explosion, the lessons learnt, and its role in the collapse of the Soviet Union. One of the only works on the

<sup>&</sup>lt;sup>11</sup> Willis, Kirk, 'The Origins of British Nuclear Culture, 1895–1939', in *Journal of British Studies*, 34 (1995).

<sup>&</sup>lt;sup>12</sup> Hogg, 2016.

<sup>&</sup>lt;sup>13</sup> Cordle, Daniel, 'Protect/Protest: British nuclear fiction of the 1980s', in The British Journal for the History of Science, 45:4, (2012).

<sup>&</sup>lt;sup>14</sup> Lucie de Carvalho, ""Remember There's Nothing Secret About a Nuclear Power Station": Institutional Communication on Invisible Environmental Risks in British TV Footage (1956-1982)", in *French Journal of British Histories*, 23:3, (2018).ro

public reaction outside of Britain is Bas Verplankens.<sup>15</sup> By conducting a behavioural analysis study, Verplanken attempts to clarify the rationality of subsequent Dutch attitudes towards nuclear power. He importantly reveals how communication of the event was an integral factor in distinguishing between rational anxieties and those that were ill founded.

The available British literature on Chernobyl continues to be considerably limited. In the last decade, the majority of studies have attempted to map the British reaction on a subnational level thus challenging ideas of a homogenous British nuclear culture. Although, Archivist, Alan W. Robertson provided the first attempt in his brief article on the official Northern Ireland response. <sup>16</sup> Through the analysis of files held in the countries public record office, Robertson sheds light on radioactive monitoring, livestock restrictions as well as the 'unsatisfactory coordination' between government bodies. <sup>17</sup> Informing though it may be, the article is hardly extensive or polemic, with no real focus on the Northern Irish citizen besides a mention of how a meeting between government bodies could have "reduced the anxiety of the general public'. <sup>18</sup> Nevertheless, perceptions of government incompetence, both in dealing with the fallout and in preparations for a disaster closer to home, remain an area ripe for further investigation.

In more recent years, historians have explored the evolution of post-Chernobyl nuclear anxiety and public anti-nuclear discourse with reference to more social and cultural sources. Seán Aeron Martin and Marj Elin William present an analysis of nuclear sceptics in Wales who attempted to politicise Chernobyl to spotlight the dangers of nuclear power. <sup>19</sup> Drawing on local and government correspondence, the authors explore the 'single-issue protest' carried out by agricultural farmers and how this led to new politically charged farmer community. <sup>20</sup> Neal Alexander and Jamie Harris article, *After Chernobyl: Welsh Poetry and Nuclear Power* echoes similar themes. <sup>21</sup> They illustrate how welsh poets "played key roles in the anti-nuclear movement during the 1980s and 1990s'. <sup>22</sup> Nonetheless, the specific targeting of activist groups risks marginalising individuals who were less politically motivated in the

<sup>&</sup>lt;sup>15</sup> Bas Verplanken, 'Public reactions to the Chernobyl accident: A case of rationality?' in Industrial Crisis Quarterly, 5:4, (1991).

<sup>&</sup>lt;sup>16</sup> Alan W. Robertson, "Chernobyl: The Response in Northern Ireland", in *History Ireland*, 24:3, (Wordwell Ltd., 2016).

<sup>&</sup>lt;sup>17</sup> Ibid, p. 3.

<sup>18</sup> Ibid.

<sup>&</sup>lt;sup>19</sup> Seán Aeron Martin, Marj Elin Williams, 'Politicising Chernobyl: Wales and Nuclear Power in the 1980s', in Transactions of the Royal Historical Society, 29 (2019).

<sup>&</sup>lt;sup>20</sup> Ibid, p. 282.

<sup>&</sup>lt;sup>21</sup> Neal Alexander, Jamie Harris, "After Chernobyl: Welsh Poetry and Nuclear Power", in *Literature & History*, 31:1, (2022).

<sup>&</sup>lt;sup>22</sup> Ibid, p. 70.

aftermath of Chernobyl. As Mass Observation reveals, some narratives centred around a general existential fear for nuclear technology. This dissertation thus intends to build on the arguments that Chernobyl further intensified anti-nuclear activism whilst addressing prevailing gaps in the diversity of everyday responses.

The most holistic and pioneering Chernobyl study is undertaken by Karena Kalmbach.<sup>23</sup> By cross examining the British and French experience, Kalmbach provides an exceptional framework to investigate not only the responses directly after the disaster, but how it was later constructed in both national and global memory. In her first chapter covering the immediate reactions, Kalmbach compares the communications of the government, the media and public authorities intended to reassure any public anxieties about the dangers of the radioactive cloud. <sup>24</sup> Even though a large section is designated to 'individual voices', her source base is comprised of known public critics, literature publications and the agricultural interviews provided by Brian Wynn's study.<sup>25</sup> There is a some recognition of internalised grievances within the ordinary citizen, but it lacks evidential basis. Therefore, a gap remains in further portraying the individual's perspective of nuclear power generation in the 1980s.

Overall, this dissertation will depart from histories on the Chernobyl response that focus exclusively on the reactions of the British state, media, and farmers. As the first study to use Mass Observation, my study will reclaim the agency of the ordinary citizen within histories on civil nuclear power and nuclear disasters like Chernobyl.

## A brief note on Sociological and ecological literature

Due to the limited amount of literature of Chernobyl, this dissertation deploys various sociological and ecological theories to conceptualise the behavioural and emotion responses exhibited in the everyday citizen.

<sup>&</sup>lt;sup>23</sup> Kalmbach, The Meanings of a Disaster: Chernobyl and Its Afterlives in Britain and France, (New York, Oxford: Berghahn Books, 2020).

<sup>&</sup>lt;sup>24</sup> Kalmbach, "Chapter 1: 1986-1988 Direct Reactions and Early narratives", (2020), p.78

<sup>&</sup>lt;sup>25</sup> Brian Wynne, Misunderstood misunderstandings: social identities and public uptake of science, in Public Understanding of Science, 1:3, (1992), pp. 281-304)

#### Methodology

Mass Observation poses as arguably the most pertinent resource to investigate the perspectives of the ordinary English citizen. Originally founded in 1951 by Charles Madge, Tom Harrison and Humphrey Jennings, the social research organisation aimed to map 'an anthropology for ourselves'. <sup>26</sup> Material would be sourced via two methods: questionnaires and tasks such as writing diaries, were completed by a national panel of recruited volunteers whilst paid investigators were sent into local communities to record people's behaviours and conversations.<sup>27</sup> After a significant halt to its regular activities in the post-war period, the Mass Observation Project was relaunched in 1981, reviving a national panel comprised of 4500 'observers' responding to directives on personal topics and broader socio-political themes. Claire Langhammer study into the Emotional Politics of August 1945 after the dropping of the atomic bomb is just one of many, to use Mass observation as their central resource. 28 However, despite the collection of 706 responses to the August 1986 directive, Mass Observation has never been used to examine the everyday reaction to Chernobyl and its implications. In no other database is there a 'mass' collection of personal accounts related to the tragedy. An alternative to gather public perspectives would be interviews though they possess limitations in memory recall and social desirability bias. Though the responses used are written in retrospect, the observers detail their emotional reactions at the time and its impact on their relationship with the nuclear industry; making this dissertation the first to conduct a qualitative analysis of emotional reactions to Chernobyl.

Part 1 of the Directive begins by reinforcing the MO concern for "what people really experienced" in contrast to assessments of the public mood presented by the British press and politicians.<sup>29</sup> Subsequently, it askes observers to 'make a note both of the major events of 1986 in the order in which you remember them, and the month in which they occurred'.<sup>30</sup> The emphasis on chronology helps to reveal the individual and collective memory processes in the observers who often recall events in a sequential manner based on their salience or the emotions evoked. Whilst the order won't be explicitly mentioned in this dissertation, it clarified how much importance was implicitly assigned to Chernobyl in comparison to other

Commented [LMP1]: I look at them chronologically - a lot of observers speak about their immediate reactions and then developments after. Messy (if have time)

Just to reconstruct their emotional narratives and changing perceptions of nuclear technology.

Hence a lot of terminology will be becem,

<sup>&</sup>lt;sup>26</sup> "The History of Mass Observation Archive <a href="https://massobs.org.uk/about-mass-observation">https://massobs.org.uk/about-mass-observation</a> [Accessed 1st April].

<sup>&</sup>quot;The Archive", MOA,,< https://massobs.org.uk/the-archive/ > [Accessed 1st April].

<sup>&</sup>lt;sup>28</sup> Claire Langhammer, "Mass Observing the Atomic Bomb: The Emotional Politics of August 1945", in Contemporary British History, 33:2, (2019).

<sup>&</sup>lt;sup>29</sup> August 1986 Directive Part II, 20A, MOA

<sup>30</sup> Ibid.

events such as the Royal Wedding and the Libya bombings. Observers are then asked to comment on their reactions at the time (taking care to not discuss with people beforehand) and then the reactions of other people around them. Interestingly, the latter can include comments like "remarks overheard in the shop…" thus respondents become both the subject and participant in this research.<sup>31</sup> Examining discourses in local environment highlight the potential 'epistemological resources individuals drew upon' while distinguishing individual perspectives from those that conform to the social and accepted norms in that historical context.<sup>32</sup> Consequently, this unique study will interrogate how Chernobyl was manifested in everyday discussion as well as individual expression.

This dissertation will explore the response mainly from two regions in England, the north-west and the Southwest. Whilst a systematic analysis of all 706 responses was not conducted, all responses from individual's residing in the two regions were thoroughly examined through both an emotional and thematic lens. Exploring the form, narrative and tone of written responses provided an important lens into the individual experience. These areas were selected based on their geographical proximity to prominent nuclear power stations in operation during the 1980s. In the former, there was the famous Sellafield (Calder Hall) and Chapel Cross whilst Hinkley Point A, Oldbury and Berkeley power stations were operating in the latter. Conducting case studies on these regions offers both geographical diversity and an insight into the localised impact of Chernobyl on resident's whose everyday lives had already been altered by nuclear power generation. It's important to note that responses from other regions such as London and the South-east shared a range of themes with those composing the basis of this dissertation thus on occasions, claims will be made to wider collectives. Although overall, this dissertation will adopt a similar regional framework to previous studies but will target more specifically, the emotions and opinions felt in English communities rather than in Wales, Northern Ireland, or France.

Nonetheless, Mass Observation possesses two limitations. Firstly, Statistics show there appears to be an archetype for the observer; a predominant factor that has attracted criticism. <sup>33</sup> Most writers tend to be an older middle-class woman from the South-East of England which perhaps limits Mass observations' 'statistical purity' and therefore its usefulness for making wider generalisations about the nation. Indeed, 528 of the 706

<sup>31</sup> Ibid.

<sup>32</sup> Langhammer, p. 212.

<sup>&</sup>lt;sup>33</sup> Anabella Pollen, "Research Methodology in Mass Observation Past and Present: 'Scientifically, About as Valuable as a Chimpanzee's Tea Party at the Zoo'?", in History Workshop Journal, 75 (Spring 2013), p. 218-222.

responses to the 1986 Directive are women and the largest sample is collected from the South-East, yet these criticisms neglect the capacity for the observer to be the researcher themselves. Many responders report on conversations held with various relatives, work colleagues and even strangers about Chernobyl which helps to combat demographic issues relating to class and gender. Additionally, this dissertation will include responses from a range of adult ages, and occupations though the use of MO's filter tool to provide a more representative sample of the thoughts and feelings in English regions and the nation more generally. In the aftermath of nuclear disasters, it would be naïve to argue that the nation shared a single homogenous response, but an analysis of personal writings at least highlights the themes present in individual minorities and can potentially reveal commonalities that speak to the collective.

The second issue lies in the self-selective nature of the observers. Critics argue that those that write to the organisation are idiosyncratic, possessing a unique 'autobiographical interest' that doesn't represent the ordinary citizen.<sup>34</sup> However, is the voluntariness not a strength? The freedom to respond assigns a distinctiveness to Mass Observation research because it reveals the deeper intentions behind the content provided by the observer. In the context of Chernobyl for example, one can explore political or cultural underpinnings of increased anti-nuclear feeling. As Langhammer states, writing to MO is considered 'an act of citizenship for the future and the present' thus the deliberate inclusion of themes relates to a sense of duty embedded into the national consciousness.<sup>35</sup>

In summary, the methodology provides this dissertation with a unique social and emotional lens to investigate the public story of Chernobyl in England. Mass Observation does not reconstruct the lives of those effected, rather narrates the story of how a transnational disaster was conceptualised, understood, and managed in the everyday community.

<sup>34</sup> Ibid

<sup>35</sup> Claire Langhammer, p. 211

## **Structure**

Chapter 1 – Disenchantment with the State: This chapter will examine how Chernobyl increased public distrust in the British government and the scientific authorities to manage nuclear risks.

Chapter 2 – A Retreat from nuclear power: This chapter will illustrate how Chernobyl resurfaced and proved past reservations of nuclear power and directed public anxieties towards domestic power stations. Additionally, the underpinning of broader public retreats from nuclear technology will be explored.

Chapter 3 – Existential Dread and Doomsday Discourse: This chapter will explore how, with heightened anxieties over nuclear technology, the new threat of radiation and the incompetency of the state, the public arrived at feelings of existential dread and helplessness.

## **Chapter 1: Disenchantment with the State**

The following chapter will utilise the North-West sample as a case study to demonstrate how Chernobyl deepened public distrust towards government and the scientific authorities in charge of managing the fallout. In doing so it will deploy Ulrich Beck's 'risk society' theory that modern societies are characterised by new risks due to industrialisation, technological modernisation, and globalisation.<sup>36</sup> Such risks are increasingly complex and global in scope, rendering governments ill-equipped and prone to public scepticism.<sup>37</sup> Steve Matthewman builds on this framework stating that disasters and accidents "expose things that are ordinarily occluded". 38 Here he alludes to inner workings of government and the faults in expert opinions that had previously diminished the eventuality of a disasters occurrence. By employing these sociological theories, this chapter will build on debates regarding the significance of state communication on post-Chernobyl public anxiety. Verplanken and Wynne find that fears were not just reduced to public ignorance, rather exacerbated by government reporting.<sup>39</sup> Therefore, this chapter will demonstrate that Chernobyl encouraged individuals to challenge the government rhetoric that "it couldn't happen here" and interrogate the validity of information provided by scientific authorities. 40 Moreover, it will go one step further in exploring how challenges could evolve into accusations of conspiracy, which contests Kalmbach's argument that was no such 'British Chernobyl affair.'41

Mass observers were hardly convinced by the immediate reassurances 'that Britain was in no danger and that no food was contaminated'. 42 The resultant feelings of distrust, frustration and anxiety were exacerbated after later contradictions in public advice. Not until a week after the explosion, were increased levels of radiation detected in the UK and Government files suggest 'the ill coordinated nature of the information and advice aroused rather than calmed public anxiety'. 43 An exceptional example was William Waldegrave (Environment minister) who "unwittingly" gave the number of the DOE drivers to listeners

<sup>&</sup>lt;sup>36</sup> Ulrich Beck, Mark Ritter, Risk Society: Towards a New Modernity, (Sage Publications, 1992), p. 13

<sup>&</sup>lt;sup>37</sup> Ibid, p.

<sup>&</sup>lt;sup>38</sup> Steve Matthewman, "Ch. 3 Accidents, Disasters and Revelation", in *Disasters, Risks and Revelation: Making Sense of Our Times*, (Palgrave Macmillan UK, 2015), p. 42.

<sup>&</sup>lt;sup>39</sup> Verplanken, p. 258-260; Brian Wynne, p. 24-30

<sup>&</sup>lt;sup>40</sup> B91, response to 1986 Autumn directive part I, 1986, MOA.

<sup>41</sup> Kalmbach, p. 72.

<sup>&</sup>lt;sup>42</sup> P1971, response to 1986 Autumn directive part 1, 1986, MOA.

<sup>&</sup>lt;sup>43</sup> A letter from John Wybrew to the Prime Minister, 16<sup>th</sup> May 1986, The Chernobyl Incident – Contingency Planning, The National Archives (PREM 19/3656).

on Radio 4 which resulted in thousands of anxious callers.<sup>44</sup> Furthermore, The National Radiological Protection Board saw no reason to worry about radioactivity levels thus the government gave the all clear very early on.<sup>45</sup> However, various Mass-observers disbelieved these early assurances. A male student explained the two factors that made the event more frightening:

The lack of Government information about the risks; what they said appeared to underplay the dangers we imagined, in being rather vague, or alarmingly reassuring. No-one really trusted the official view. Most people I remember thought the Government either did not know or was not letting on. <sup>46</sup>

It's often implied that inherent in public discourse, was a link between the government 'cloak and dagger' approach and the idea that the travelling radioactive cloud could, in fact, contaminate rainfall, livestock and certain foods. Eventually, public warnings were issued about drinking milk and restrictions were imposed on lamb trade but, for farming communities in wales and Cumbria, this contradicted prior advice that contamination levels did not substantially threaten public health. <sup>47</sup> Given the diversity of efforts employed by the observers to mitigate radioactive contamination, universal guidelines to proceed with citizen life appear absent. This was a common source for confusion and anxiety among the responders. With state uncertainty, came nervous contemplation on how best to safeguard oneself and one's family,

Guided by the belief that the public were scientifically illiterate, the state attempted to reverse anxieties through several rhetorical strategies, which only served to alienate rather than reconcile observers. Kalmbach highlights 'smoking-topos', which depicts the comparison between the yearly death toll of smoking and the Chernobyl death toll, intended to highlight the minor health impact of the incident. <sup>48</sup> Another prominent example was the argument that the British Advanced-Gas-cooled (AGR) reactor was far superior, thus safer, than the Pressurised-Water-Reactor (PWR) used in the Chernobyl plant. Yet for one male professional, the 'tactic of trying to play off unreliable dangerous Soviet reactors against

45 Kalmbach, p. 28.

<sup>44</sup> Ibid.

<sup>&</sup>lt;sup>46</sup> R1590, response to 1986 Autumn directive part 1,1986, MOA.

<sup>&</sup>lt;sup>47</sup> Martin, Williams, 276-284.

<sup>&</sup>lt;sup>48</sup> Kalmbach, p. 34.

clean western ones seemed unimaginative and silly.'<sup>49</sup> Similarly, Verplanken reveals that Dutch citizens expressed discontent for this technical difference, claiming it was emblematic of western arrogance.<sup>50</sup> This speaks to a more transnational public retreat from technonationalism and the recognition of anti-communist propaganda. Whilst certain observers harboured frustration, others felt belittled by the implication that their scientific literacy was inadequate. A female in her 50s observed,

There is a lot of confusion about nuclear energy, nuclear bombs, nuclear waste and all the technical terms used in speaking of these matters. Politicians and others in discussion in the media deprecate the ignorance and confusion in the public mind.<sup>51</sup>

Regardless of their validity, assurances were perceived as state deceptions, exploiting the knowledge deficit between expert and citizen. This, simultaneously, unmasked the lack of state preparedness for nuclear risk. Therefore, alienation from state authority led respondents to display a fundamental symptom of Beck's 'risk society', where the individual is forced to internally construct their understanding of radioactive danger independent of expert guidance. <sup>52</sup>

Disenchantment was also fuelled by the idea that government and scientific bodies were united under a technocratic umbrella of conspiracy. Deliberate attempts to 'play down' the fallout was presented as part of strategy to maintain the integrity of Britain's nuclear power industry. Kalmbach argues 'the British public placed more trust in their experts than in their politicians...'<sup>53</sup> In contrast, much like Wynne's Cumbrian farmers, the Mass-observers attribute equally as much scepticism towards experts than they did Westminster. One older male spoke of 'how confused the so-called experts were' whilst a more animated respondent 'seriously doubted the honesty of news reports and the assurances of "experts." Struggling to situate their accusations, observers often amalgamated politicians and scientists into a single entity. Arguably institutional incoordination contributed as much to public anxiety and confusion as the fallout itself. Thus, for more passionate individuals, trust in higher authority entirely collapsed.

<sup>&</sup>lt;sup>49</sup> R1671, response to 1986 Autumn directive Part 1,1986, MOA.

<sup>&</sup>lt;sup>50</sup> Verplanken, p. 262.

<sup>&</sup>lt;sup>51</sup> F1614s response to 1986 Autumn directive Part 1, 1986, MOA.

<sup>&</sup>lt;sup>52</sup> Becht, p. 9-16.

<sup>53</sup> Kalmbach, p. 73.

<sup>&</sup>lt;sup>54</sup> C142; B1215, response to 1986 Autumn directive Part 1, 1986, MOA.

The accusations of negligence and concealment had been inherited from a past nuclear power conspiracy. North-western communities would have been very familiar with the 1957 fire at the Windscale nuclear complex, later renamed as Sellafield. Importantly, numerous radioactive leaks had been confirmed from the complex between 1955-1984.<sup>55</sup> Concerns around the whitewashing of the incident, which was the worst recorded nuclear disaster at the time, were proven right after it was later revealed that the Central Electricity Generating Board (CEGB) delayed informing the public.<sup>56</sup> 30 years later, the Chernobyl fallout would revive Sellafield's role in public conspiracy theories since higher radioactivity levels were recorded in nearby areas. Kalmbach would disagree arguing that the Sellafield narrative was framed as a story of the past and 'never projected onto the situation caused by Chernobyl.'<sup>57</sup> Wynne's study suggests that 'the full extent of the Windscale cover up emerged into the public domain' yet his claim is based exclusively on the farmer reaction.<sup>58</sup> Numerous observers outside the agricultural community also establish the link between Sellafield and Chernobyl with some insinuating that rising radioactivity was caused by the former not the later. As a self-employed male, sarcastically wrote,

"I was unsurprised that when maps showing the degrees of fallout were published, there was a great concentration in North Wales and North of Winscale/Sellafield (whatever they're calling it this week) which the authorities assured us had nothing to do with the power station, just a coincidence chaps." 59

Mass observers, living less locally, demonstrated how such conspiracy theories were not restricted regionally. A male in Northern Ireland claimed a sign was erected on the site reading "Welcome to Sellafield- twinned with Chernobyl.' Similar, a London citizen explains how her 'daughter's friend in the Lake district said the fallout was from Sellafield". Kalmbach rightly argues accusations were not disclosed publicly, nevertheless there is a clear indication that they were proliferating on the everyday level. Such unofficial

<sup>&</sup>lt;sup>55</sup> G A M Webb, R W Anderson, M J S Gaffney, "Classification of events with an off-site radiological impact at the Sellafield site between 1950 and 2000, using the International Nuclear Event Scale", in *Journal of Radiological protection*, 26:1, (2006).

<sup>&</sup>lt;sup>56</sup> Taylor, p. 12.

<sup>57</sup> Kalmbach, p.76.

<sup>&</sup>lt;sup>58</sup> Wynne, p. 24.

<sup>&</sup>lt;sup>59</sup> W1930, response to 1986 Autumn directive part 1, 1986, MOA.

<sup>&</sup>lt;sup>60</sup> C14485, response to 1986 Autumn directive part 1, 1986, MOA.

<sup>61</sup> B86, response to 1986 Autumn directive part 1, 1986, MOA.

<sup>62</sup> Kalmbach, p. 60-72.

narratives merit attention because they illuminate how memories from past nuclear disasters can radicalise an individual's reaction to Chernobyl.

Certainly, not all observers believed the conspiracy narrative but there is evidence in their writing that tensions remained between state led technological modernisation and issues of social welfare and public safety. Worries and frustrations allude to a 'Conservative overreliance on nuclear power' and that to continue developing such technologies would be 'playing with fire'. <sup>63</sup> This reinforces Cordle's 'politics of vulnerability' whereby the dangers of the disaster were compounded, rather than relieved, by British state nuclear policies. <sup>64</sup> In the 1980s, Thatcher's privatisation policies replaced industries that were so imperative to local identities and livelihoods with automotive technology like nuclear power, which could be perceived as a perilous gamble. This would explain why responders from the Northwest, an area that had relied heavily on traditional industries like coal, were increasingly frustrated and weary of the nuclear state. Chernobyl had highlighted the inevitably of the British technocracy by exposing their commitment to upholding the reputation of nuclear power generation.

This chapter reveals how government reassurances failed to quell public anxiety leading to public distrust and the propagation of conspiracy theories. By establishing context and linking Chernobyl to broader narratives of state neglect and sustained techno politics, this chapter underscores the significance of accountable governance in managing technological risks - especially in times of nuclear crisis where the ordinary citizen relies so heavily on the direction of higher authorities. However, to fully understand how Chernobyl amplified disenchantment with the technocracy, perceptions of nuclear technologies and their pitfalls must be investigated.

<sup>63</sup> B1683, Female, 1920s, Yorkshire; G1668, 1960s, Female, SW.

<sup>&</sup>lt;sup>64</sup> Cordle, p, 654.

# **Chapter 2: A Retreat from Nuclear Power**

This chapter, based on the south-western responses, will examine how Chernobyl served to confirm and intensify existing reservations of nuclear power as well as radicalise everyday opinion. In doing so, it will trace the historical trajectory of British social opposition with help from the few historians to have studied the subject. Wall's study offers a glimpse into regional backlash to the construction of nearby power stations. Through a local and transnational lens, Oberloskamp conducts the first investigation of social opposition to nuclear power which 'emerged in the second half the 1970s, albeit as a relatively weak movement.'65 Historical context not only offers a comparison between past scepticisms and the fears present in the observers' responses but highlights how Chernobyl represented a watershed moment in the rise of anti-nuclear power sentiment. Therefore, this chapter will also build on the works that have explored the politicisation of Chernobyl in Wales but will divert more attention to the ordinary citizen rather than farming communities, political movements, or poets. Underpinning the rise of anti-nuclear feeling in the 1980s, was a broader public departure from nuclear technology whereby Thomas Kelsey's article provides salient insight. Despite, exclusively focused on political and industrial actors, he presents a framework to conceptualise the decline of public techno nationalism. This political reaction to Chernobyl was established by the culmination of fears related to both the civil uses of nuclear power and technological modernity more generally.

Chernobyl confirmed the idea among observers that nuclear incidents were bound to happen. As a result, south-western anxieties were directed towards nuclear facilities nearby. Respondents would often use deterministic vocabulary like 'inevitable' or deploy different versions of the phrase "I told you so", evoking a predisposed scepticism of nuclear power and an emotional disdain towards the lack of foresight shared by the nuclear industry. <sup>66</sup> As a responder exasperated,

"When will we learn? Nuclear "accidents". This is it. The whole subject makes me cross. I wish the damned atom had never been split."<sup>67</sup>

<sup>65</sup> Oberloskamp, p. 417.

<sup>&</sup>lt;sup>66</sup> H1954, response to 1986 Autumn directive part 1, MOA.

<sup>&</sup>lt;sup>67</sup> C1387's, response to 1986 Autumn directive part 1, MOA.

The last sentence suggests a wish to avoid the trajectory of nuclear science entirely which encapsulated a substantial deterioration in the individual's relationship with nuclear power and technology more broadly. Indeed, public anxiety to civil uses of nuclear power had been present since the inception of the first nuclear programme in the 1950s.<sup>68</sup> Yet, Wall speaks to a nuanced public reaction to the construction of Sizewell A (1957-66), arguing locals would weigh up the environmental risks against the employment opportunities brought by the arriving industry. Considering people would later swim in the nearby sea warmed by Sizewell, the Windscale fire appeared to expose the need for open state-communication about potential hazards, rather than spark catastrophising fears of the technology itself.<sup>69</sup> In contrast, Chernobyl reframed nuclear hazards into the more dangerous nuclear risks which superseded the pre-established benefits of nearby power stations within local nuclear discourse. Only a minority of south-western observers remained confident in domestic nuclear power, usually because they had a relative working in the industry. By encouraging the revaluation of nuclear safety, the Soviet disaster brought the nuclear threat 'back home' especially considering the transnational reach of its fallout. One passionate female worried,

"With 3 stations within 20 miles of here and hundreds being quickly built in France, could it happen again? Yes!".  $^{70}$ 

Equally, a GP secretary surfaced collective fears about the possibility of Hinkley Point or Berkeley power stations sending out a nuclear cloud as 'they were not far as the crow flies." Furthermore, intertwining of distance and fear can be found in Wales as poets would 'redirect' their readers to the threats posed by Trawsfynydd and Wylfa as well as Hinkley Point. For the everyday citizen living in these regions, Chernobyl 'gave nuclear risk a visual reality' and elevated the perception of another British incident as the immediate threat. <sup>71</sup> In this sense, regional collectives had a distinct influence on the focus of post-Chernobyl anxieties. However, simmering underneath fears of a domestic nuclear accident were the broader environmental issues of nuclear power generation, rooted in past activist movements.

Chernobyl resurfaced concerns among Mass-Observers regarding radioactive contamination and nuclear waste. When interwoven with preestablished ideas that disasters

<sup>&</sup>lt;sup>68</sup> Ian Welsh, The Nimby Syndrome: Its Significance in the History of the Nuclear Debate in Britain, in British Journal for the History of Science, 26 (1993), p. 15.

<sup>&</sup>lt;sup>69</sup> Christine Wall, p. 265-267.

<sup>&</sup>lt;sup>70</sup> P1208, response to 1986 Autumn directive part 1, 1986, MOA.

<sup>&</sup>lt;sup>71</sup> Lucie de Carvalho, p.14.

were inevitable, responders became notably political. A female from London articulated this combination as she passionately asked,

'Why didn't anyone AT THE START think what they were going to do about nuclear waste, how they were going to safeguard against nuclear accidents?'<sup>72</sup>

In the 1970s, as Cold War tensions moved into a period of 'détente', societal debates shifted from nuclear weaponry to nuclear energy; a notion referred to as the 'ecological turning point'. 73 Ian Welsh deploys the concept of NIMBY ('not in my back yard') syndrome, to articulate how the public have always opposed the sighting of nuclear waste disposal facilities. <sup>74</sup> Oberloskmap highlights transnational linkages between social opposition in the UK and Germany but argues that 'only radical activists articulated a fundamental rejection of nuclear power'. As will be subsequently demonstrated, Chernobyl cultivated strong political rejection later within the individual citizen. Public awareness of environment risk gained traction after Pochin inquiry which confirmed workers at Aldermaston had been contaminated and the Windscale inquiry exposing the significance of human error. 75 Meanwhile, Three Mile Island drew attention to the regularity of serious nuclear incidents. Thus, as fears of a global nuclear conflict were resumed in the 1980s, the public were deeply engaged in all nuclear issues. <sup>76</sup>. By exhibiting a sense of relief to Chernobyl, some observers imply that previous disasters and public reports were insufficient in conjuring substantial public debate. Hence, the disaster served as long-awaited validation for those who had harboured reservations for decades. A retired female admitted,

I have always been worried by the spread of nuclear power stations and nuclear weapons and have waited for a "Chernobyl" for 30 years.<sup>77</sup>

'I was almost relieved that something large enough had occurred to direct international public attention to the risk of nuclear power' wrote a student from the south-east.<sup>78</sup> Calls for global

<sup>&</sup>lt;sup>72</sup> B1120, response to Autumn directive part 1, 1986, MOA.

<sup>&</sup>lt;sup>73</sup> Oberloskamp, p. 418.

<sup>&</sup>lt;sup>74</sup> Welsh, Ian, 'The NIMBY Syndrome: Its Significance in the History of the Nuclear Debate in Britain', in *The British Journal for the History of Science*, 26 (1993), 15–32

<sup>&</sup>lt;sup>75</sup> Hogg, p. 134.

<sup>&</sup>lt;sup>76</sup> Ibid, p.133.

<sup>&</sup>lt;sup>77</sup> L1789, response to Autumn directive part 1, 1986, MOA.

<sup>&</sup>lt;sup>78</sup> M1879, response to Autumn directive part 1, 1986, MOA.

action illustrated how anti-nuclear power activism continued to be 'marked by transnational reference spaces'. Additionally, they partly reinforce Martin and William's central point that the disaster was 'harnessed by more conventional nuclear agitators, to highlight the dangers of producing nuclear energy', although the same could not be said for the CND campaign. Whilst it's difficult to determine the extent to which observers actively resisted, their responses nonetheless demonstrate excessive anti-nuclear power feeling in which Chernobyl was anticipated to mark a turning point in nuclear policy.

In the more activist observers, a turn represented a complete departure from the nuclear power as a source of energy. With "doubts about the future of nuclear power stations", there were several demands for other sources of energy to be explored or a reversion back to the use of fossil fuels. <sup>81</sup> One female in her 60s explained,

'We have plenty of coal and wind or wave power that have not been explored. The CEGB have made some mistakes in the past on their estimation of the numbers of new power stations needed. We do not need nuclear power of any sort.'82

This departure holds historical significance for two reasons. Firstly, it further articulates how Chernobyl radicalised public opinion. Atomic energy was to be the 'the savour from the threats of climate change' as an alternative to fossil fuels. 83 However, the catastrophic nature of the disaster clearly shattered a lot of respondent confidences in its viability, leading to a revaluation of energy policies and priorities. One responder describes his wife's opinion that 'not enough effort was put into finding out potential replacements of nuclear power'. 84 Note how in more negative reactions, nuclear technology and state neglect are always intrinsically linked.

Secondly, the emphasis on coal, points to a broader societal reckoning with the risk of technological progress and modernity. Thomas Kelsey identifies a similar retreat from the promotion of 'high-tech industries' like the AGR programme had already begun at a state level in the 1970s. 85 Regarding public benefit, nuclear power had a better claim for being

<sup>79</sup> Oberloskamp, p. 418.

<sup>&</sup>lt;sup>80</sup> Marin, Williams, p 276.; Kate Hudson, CND, Now More Than Ever: The Story of a Peace Movement, (Vision Paperbacks, 2005), p. 169.

<sup>81</sup> M1725, response to Autumn directive part 1, 1986, MOA.

<sup>82</sup> H1318, response to Autumn directive part 1, 1986, MOA.

<sup>83</sup> Kalmbach, p. 35.

<sup>&</sup>lt;sup>84</sup> W1930, response to Autumn directive part 1, 1986, MOA.

<sup>&</sup>lt;sup>85</sup> Kelsey, p. 1-5.

socially democratic in contrast to projects like the supersonic airliner Concorde, but left critics argued that 'highly unionised workers in the coal industry were being replaced with capitalist-intensive technology." Indeed, calls for the development of solar and wind technologies, ten years later, did not represent a departure from 'high technologies' but for most observers, the retreat from nuclear power stations remained paramount. Not because they had necessarily engaged in techno-political debate, but because safety concerns took priority over nuclear power's role as an instrument of modernity. Ultimately, Chernobyl resembled a key to unlocking a public safety-culture in which nuclear reactors had no place. From then on, 'fear became the product of the most advanced levels of progress in the modern world.'87

In summary, this chapter has outlined how Chernobyl resurfaced, proved, and directed fears of nuclear power within the individual and regional collectives. After Windscale, the bombing of Japan and Three Mile Island, it became the 4<sup>th</sup> major nuclear incident too have transpired since the splitting of the atom. Lacking a voice in nuclear decision making, individuals turned to nuclear annihilation as the likely next stop in the technological train to modernity. Thus, discourses around doomsday scenarios stand as a natural progression from the nuclear apprehensions laid bare by Chernobyl.

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<sup>86</sup> Kelsey, p. 113

<sup>&</sup>lt;sup>87</sup> Joonhong Ahn, Franck Guardnieri, Kazuo Furuta, Resilience: A New Paradigm of Nuclear Safety: From Accident Mitigation to Resilient Society Facing Extreme Situations, (Springer Open, 2017), p. 143

## **Chapter 3: Fatalism and Doomsday Discourse**

This final chapter will explore the emotional climax of public reactions to Chernobyl. As the catastrophe unfolded the responders grappled with both disturbance and relief as they confronted the distant yet pervasive effects of the nuclear incident. However, as the true extent of the disaster became apparent, a strong sense of fear and uncertainty permeated public discourse in tandem with the growing distrust in state management and domestic nuclear power. By transcending national borders, the radioactivity cloud typified the modern threat to humanity and served to further illuminate the inherent dangers and unpredictability of nuclear technology including the bomb. Facing such challenges, observers arrived at feelings of helplessness, fatalism, and existential dread.

By delving into emotional trajectories this chapter identifies similar 'transnational emotional ties' to those found between Mass Observers and the Japan bomb victims in 1945. Bublic sympathies for other nations appear to be a commonality in the unofficial histories of global nuclear events and play an important role in the catastrophising of Chernobyl. Moreover, this chapter will deploy Timothy Morton's 'hyperobjects' and Rob Nixon's 'slow violence' to explain the radical fears of radioactivity. However anxieties were not just restricted to the fallout of nuclear incidents as observers turned their attention to nuclear weaponry. After Chernobyl, nuclear energy and the nuclear bomb became more blurred; a notion which challenges cultural narratives that portray the 1980s solely as a period dominated by anti-nuclear weaponry sentiment. Therefore, this chapter will demonstrate how the horrors and realities experienced by the Russian people were relayed back to the observers through the travelling radioactive cloud. In turn, the everyday citizen sunk into l into a defeatist mentality of 'what shall be, will be'. So

Before realising the far-reaching effects of Chernobyl, observers experienced a dichotomy of emotions. Despite being geographically distant from the accident, respondents exerted feelings of disturbance, horror, and sadness upon learning about the impact on the inhabitants Pripyat and the town of Chernobyl. Most included some declaration of sympathy to the people who were displaced from their homes and faced the brunt of long-term health impacts. A woman from the southwest articulated her sympathies:

<sup>88</sup> Langhammer, p. 217

<sup>89</sup> Timothy Morton, Hyper Objects: Philosophy and Ecology After the End of the World, (University of Minnesota Press, 2013); Rob Nixon, Slow Violence and the Environmentalism of the Poor, (Cambridge, Massachusetts: Harvard University Press, 2011)

<sup>90</sup> W1930, response to 1986 Autumn directive part 1, 1986, MOA

Our hearts went out those in the Chernobyl region. From my own visit to Russia, I known how harsh the living conditions can be at the best of times and not only were they uprooted from their homes, but would have the horrible fear of long term ill-effects to contend with.<sup>91</sup>

In this sense, their fears were externalised to the Soviet people within a transnational emotional connection. On the other hand, some respondents were equally relieved that the disaster had occurred far away. After watching the news, one younger individual remarked, 'Thank goodness that doesn't affect me, not realising its full implications.' Initial understandings of safety in a nuclear world were seemingly tailored to distance and national borders. Hence, upon receiving news of a globally dispersed radioactive cloud, the harrowing experience of a distant community and the emerging dangers of radioactivity swiftly became a tangible reality.

The covert and unrestricted nature of radioactivity was a notion difficult to grasp by observers. Morton classifies nuclear radiation as a 'hyperobject' that is 'massively distributed in time and space' and always 'sticks' to us regardless of attempts to combat or minimise them. Sessentially, it challenged traditional conceptions of boundaries, scale and locality thus required new modes of understanding which the everyday citizen didn't appear to possess. One younger woman explained her families fears of radiation:

Worry, fear, horror, anxiety for the future. Fear that an accident in one place can have catastrophic results at unknown distances away and an unknown time in the future. 94

Individuals often deployed vocabulary of the 'unknown', suggesting they perceived radioactivity as a relatively new and alien threat. Chernobyl's fallout was unique because it transcended transnational borders dispersing radioactive isotopes across the northern hemisphere. Whilst the most significant releases occurred shortly after the explosion, the presence of long-lived isotopes such as Caesium-137 (half-life of 30 years) ensured radioactive contamination persisted, unknowingly, for many years after. Nixon refers to such

<sup>91</sup> B1215, response to 1986 Autumn directive part 1, 1986, MOA

<sup>92</sup> A1783, response to 1986 Autumn directive part 1, 1986, MOA

<sup>93</sup> Morton, p. 189

<sup>&</sup>lt;sup>94</sup> M1755, response to 1986 Autumn directive part 1, 1986, MOA

a phenomenon as 'slow violence' because its gradual, incremental and imperceivable in nature. <sup>95</sup> Therefore, the immediate passing of the cloud only represented the first phase of radioactive danger to the everyday citizen. Radiation's ambiguous temporality directed fears not only in the present but to the future; a first step in developing existential dread.

Lacking knowledge on the 'full extent of any damage done', observers depicted radiation as 'uncontrollable'. Given that rainfalls contaminated soil and water, sparking a chain reaction of radioactive exposure, many initially tried to protect themselves and their families in a variety of ways. Elderly respondents refrained from going on their daily walks, parents prevented their children from playing outside whilst others stopped buying certain products like milk and vegetables. This demonstrates how even low levels of radiation could substantially disrupt the lives of the everyday citizen and lead to the adoption of their own safety strategies. For those struck with more extreme nuclear terror, such efforts appeared meaningless as one respondent recollects, 'I felt that any attempt I could take to lessen or avoid the effects of the leakage would be futile'. Similarly, a retired women explained her U-turn:

Then I realized that even the experts could not predict the long-term effects of radiation on crops and animals, so I began again to buy fresh foods. This was not because I had any confidence in the assurances given by the government that our food was safe but with a sense of helplessness and fatalism.  $^{98}$ 

Coupled with perceptions of state incompetency, more sceptical individuals completely abandoned any mitigative practises, and resorted to this sense of defeatism. This reflects how the individual citizen lacked agency in stopping nuclear danger. The implication arises that the perceived inevitability of radioactive danger contributed to a state of public apathy or disengagement.

For other respondents, as the threat of radiation grew, fear was further intrenched into the other technological feat in the nuclear realm, the bomb. Nuclear weaponry represented a more immediate and explosive violence in contrast to the attritional violence associated with Chernobyl's fallout. Hudson argues that 'many people drew the links between the damage

<sup>95</sup> Nixon, p. 19

<sup>&</sup>lt;sup>96</sup> B1788, response to 1986 Autumn directive part 1, 1986, MOA

<sup>97</sup> B1215, response to 1986 Autumn directive part 1, 1986, MOA

<sup>98</sup> F1614, response to 1986 Autumn directive part, 1986, MOA

caused by the Chernobyl disaster and the potential impact of nuclear war.'99 Indeed, the observers differentiated between the severity of the two nuclear threats. Speaking on behalf of a collective, a female in there 50s, claims 'some people felt that we could never cope with a nuclear attack which would be much worse than that'.<sup>100</sup> The disaster thus served as a warning that the worse was still come if a nuclear conflict unravelled, particularly considering the perceived incompetence of state nuclear management. Despite the static nature of power stations, the geographical reach of the Chernobyl fallout highlighted the more visible and mobile threat of nuclear weaponry. As one retired male wrote

If accidents can happen on such a scale with static nuclear plant, then how much easier it must be for accidents on the missile side of things.  $^{101}$ 

Historians who have explored British nuclear culture in the 1980s often subsume nuclear power under the war machine of the nuclear weaponry <sup>102</sup> In doing so, they imply that fears of nuclear conflict took priority in public nuclear discourse. Kalmbach claims that the 'national and global military nuclear techno-political regime was the focus of the British antinuclear campaigners protest. <sup>103</sup> In focusing on activist groups, she misses that after Chernobyl, the public were sufficiently politically opposed to nuclear power as well as nuclear weaponry. Observers would often group together both threats under one nuclear entity. One older claimed 'how the whole nuclear scene seemed somewhat in limbo'. <sup>104</sup> Whilst not necessarily exhibiting a sense of opposition, his response still shows a Chernobyl's represented a break from that nuclear weaponry trend at least in the immediate years after. The correlation drawn by observers underscores the way the disaster, rather than sink to the backdrop of peace and disarmament discourse, amplified apprehensions of nuclear technology at large. In essence, Chernobyl 'educated the public on the associated dangers of all things nuclear' and the likelihood of their nuclear demise. <sup>105</sup>.

This chapter has investigated the extreme emotional distress radioactive fallout caused for the individual. By linking the modern threat of radioactivity with atomic bomb,

100 H1795, response to 1986 Autumn directive part 1, 1986, MOA

<sup>103</sup> Kalmach, p. 78

<sup>99</sup> Hudson, p.169

<sup>101</sup> S473, response to 1986 Autumn directive part 1, 1986, MOA

<sup>102</sup> Hogg, Cordle

<sup>&</sup>lt;sup>104</sup> H1539, response to 1986 Autumn directive part, 1986, MOA

<sup>&</sup>lt;sup>105</sup> S473, response to 1986 Autumn directive part 1, 1986, MOA

observers were made aware of a doomsday outcome and thus any efforts to combat danger were ill-founded. One observer articulates this directly:

I decided I would rather not be a survivor of any serious nuclear bomb or accident. 106

 $<sup>^{\</sup>rm 106}$  G1241, response to 1986 Autumn Directive, 1986, MOA

#### Conclusion

Today, the area surrounding the Chernobyl Nuclear power plant remains largely inhabitable, serving as a stark reminder of the long-term environmental impact of nuclear accidents and as a haunting memory of how human error, interwoven with cultures of state secrecy, can lead to catastrophic generational consequences. However, whilst it's been the subject of numerous books, films, documentaries, and television series such as the critically acclaimed HBO depiction, its histories outside of eastern Europe remains significantly neglected. Upon conducting a keyword search for 'Chernobyl' into the Bibliography of British and Irish history, only 4 results emerged. As a result, a multidiplinary approach was used to incorporate more behavioural understandings of public emotion and reaction. Certainty, this dissertation does not claim to have filled the prevailing gap, nevertheless its provided important recognition of the disaster's broader implications beyond its immediate geographical context.

Using the 1986 Mass Observation directive and its responses from the northwest, southwest and other regions, it has been demonstrated that Chernobyl radicalised public opinion on nuclear power and solidified fears into nuclear technologies more generally. Through the lens of sociological theory on risk perception, the first chapter underscores Chernobyl's role in fuelling public alienation from higher authorities which peaked with conspiracy theories of government whitewashing. The historical contexts of past nuclear incidents, specifically Windscale, illustrate how collective memories of state negligence contributed to heightened anxiety and frustration among everyday citizens. Intrinsically intertwined were preestablished fears and reservations of nuclear power that had been marinating since the beginnings of the nuclear era. The second chapter explains how Chernobyl occurred in an already pivotal decade in public nuclear engagement thus offering some context to the extremity of anxious responses. Observers grappled with the implications of nuclear incidents both locally and globally, a symptom of western thinking more generally. But clearly, previous nuclear catastrophies lacked the scale and global attention to spark substantial criticism thus Chernobyl became an incredibly powerful political tool for arguments against nuclear power. This dissertation finishes with a more specific emotional study. When confronting the unpredictable and fatal nature of nuclear technology, observers surrendered to the perceived likely outcome of nuclear demise domestically or globally.

Together the chapters depict a complex emotional trajectory in the everyday citizen and wider collectives comprised off relief, anger, fear, dread, helplessness, and fatalism. Through the analysis of personal written accounts, they offer a unique lens into the emotional stories and individual perspective of a transnational disaster. The observers, in writing retrospectively, provide an account of their changing opinions and feelings over the passage of time offering invaluable insight into evolving societal attitudes in tandem with Chernobyl's legacy. Government and cultural sources have been mostly avoided to ensure that the public response is narrated as its own history. As a result, different levels of the same emotion have been included to show that there was no homogenous response to Chernobyl, but a culmination of individual narratives influenced by region, lifestyle, and any preconceptions of the nuclear.

However, the British public response is just one of many Chernobyl histories still to be told. Considering this dissertation adopts a British and, on occasions, western lens perhaps further study can be diverted towards the far- east and the implication the disaster had on public nuclear activism and anxiety. Equally, exploring the everyday British response to other transnational nuclear disasters such the Fukushima incident (2011) could provide a compelling comparison between the reaction to a European disaster and those on the opposite side of the globe. In this sense, one can establish if there is a universal framework forged into the British psych when dealing with nuclear danger. Furthermore, considering fears of nuclear power eventually died down by the 90s in Britain, investigating the changing societal attitudes to Chernobyl and its constructions in British memory would prove valuable. But for now, in reflecting on the British response, we are reminded of the historical resonance of nuclear disasters and their radicalisation of the everyday citizen.

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