
THE PAST
ISN'T ALWAYS
BEHIND YOU
EMILIA
JONES
OLIVER
COOPERSMITH
SIENNA
GUILLORY
NUCLEAR
A FILM BY
CATHERINE LINSTRUM

The Big Tower of Darkness: Haunting Energy in Catherine Linstrum's *Nuclear*

Helena Bacon

Susan Owens suggests that 'Ghosts [move], as ever, with the times.'[1] Written by David J. Newman and directed by Catherine Linstrum, *Nuclear* (2020) depicts a thoroughly modern haunting through blending a gothic narrative of family trauma with a broader tale of nuclear sites, histories and energies. Imre Szeman and Dominic Boyer suggest that '[t]o be modern is to depend on the capacities and abilities generated by energy.'[2] The looming presence of the de-commissioned Trawsfynydd nuclear power station, an imposing landmark in its Snowdonian setting, and the secrets it contains are connected by uncanny and charged means to narratives of recent nuclear disaster – namely Fukushima – and its lasting effects, and to more domestic horrors in Linstrum's production. *Nuclear* sees 14-year-old Emma witness her brother savagely beating their mother in secluded woodland; Emma rescues her and drives to an empty guest house in mid-Wales where the pair rest and hide. Emma befriends a local boy and they break into the power station, looking for a way to incorporate it into his base-jumping hobby. Her mother meanwhile is haunted by a Japanese ghost who we later find out is a spirit created by the Fukushima disaster; she has come to guide the mother's spirit over to the afterlife and out of the Welsh limbo she is trapped in. Meanwhile, Emma's brother locates her and eventually reveals that he, too, is dead (Emma had stabbed him when he killed their mother) and his ghost sinks into one of Trawsfynydd's containment ponds. Emma sees her mother's spirit one last time before she departs.

The film echoes Gabrielle Hecht's assertion that 'going nuclear', from splitting and fusing atoms through to the adoption of nuclear energies and the creation of nuclear weapons, creates ruptures in nature's very building blocks, just as ruptures appear in Emma's family, and in her perception of time and reality.[3] Atomic forces here, however, are also presented as agents of resolution, and at the film's end are connected explicitly to a kind of 'righting' and reclamation that complicates Peter Bradshaw's reading of them in the film as 'malign energies'.[4] Hecht suggests that 'asserting the ontological distinctiveness of "the nuclear" [carries] political, cultural and economic stakes, amplified by morality talk'; this assertion tends 'to boil down

to a simple duality: nuclear technology [represents] either salvation or depravity.'[5] Linstrum's film suggests that all things nuclear exist as both of these extremes *and* within the spaces in between them. The nuclear here is a force that both creates and mends tragedy, and as a material and immaterial presence: both a square, grey power station spoiling the landscape, and an international psychopomp, or certainly, in Linstrum's film, a spirit very far from home, borne from Fukushima to Snowdonia by strange nuclear forces. By fusing a domestic haunting with international nuclear narratives, *Nuclear* creates a kind of nuclear gothic that appears to reinforce reading the nuclear as either side of a binary presentation, but actually, upon further inspection, complicates and conflates these two disparate possibilities.

Trawsfynydd itself is an unusual scar on the British landscape, and indeed the British nuclear landscape. It is a Magnox station, meaning it has no outer containment buildings and is gas-cooled, and its twin reactors are housed in the conjoined towers the film depicts against the greenery of mid-Wales. It has not operated since 1991, when it was closed on safety grounds. Almost 500 jobs were lost and a review of this ruling by Nuclear Electric in October 2011 found the station was still not fit to generate power – the station did not produce enough revenue to cover modifications, and the welded joints in its pressure vessels were receiving high doses of neutron radiation from the reactor cores which embrittled the steel and risked them cracking.[6] The cores were jeopardising the structures built to contain them safely (just as Emma's brother has not been safely 'contained' and placated through his position in the family). It is thought that decommissioning Trawsfynydd will take around 100 years. Andrew Smith states that the 'Gothic […] mutates across historical, national, and generic boundaries as it reworks images drawn from different ages and places.'[7] Trawsfynydd is presented by Linstrum as a specifically modern Gothic ruin, complete with dark towers, dripping tunnels, and green-lit storage pools, that emphasises the human vulnerability of Emma and the boy when they break in, and still poses a risk to them and to its environs because of the site's lingering radioactivity.

Smith suggests that 'the uncanny, whilst a psychoanalytical concept, can also be used to bring to light historically contextualised anxieties'.[8] The uncanny here is deployed both as a means of working through familial violence but also to address anxieties concerning nuclear techno-sciences and what the human has done with the nuclear. Trawsfynydd is connected through haunting to the Fukushima disaster of March 2011, that took place only months before the Welsh power station was once again declared unsafe. The Tohoku earthquake caused a 46-foot-high tsunami that then hit the Daiichi nuclear plant and destroyed much of the site. Three reactor cores melted, and four reactors were written off. *Nuclear's* ghost from Fukushima, discussing the end of her life, states in the film's opening that 'when it happened, it

happened very fast. My family is gone, and I am gone too. It's very difficult when you die so quickly. It makes you lost for a very long time.'[9] After articulating both her absence and the reason for her presence in Snowdonia, she then benignly haunts Emma's mother, who is either also dead or clinging to the last moments of life while her spirit in turn haunts the Welsh cottage. The Japanese ghost keeps her within the safe confines of the retreat and its immediate vicinity, appearing in a variety of colourful outfits and warning the mother against getting close to the power station in search of Emma. She describes at the film's close how '[t]he big tower of darkness came, and it took away my home and my family. It was so quick that I had not time to understand what was happening'; her situation is similar to the way Emma's mother has been murdered quickly and unexpectedly, though in different circumstances.[10] We might presume that the 'big tower' she mentions is the giant wave but her speech is sufficiently ambiguous as to also generate images of the atomic bombs dropped on Hiroshima and Nagasaki in 1945, the first and only atomic weapons dropped deliberately on civilian environments. Joseph Masco states that 'the detonation of the first atomic bomb marked the end of one kind of time, and the apotheosis of another, an uncanny modernity that continually exceeds the language of "national security", "mutually assured destruction", the "Cold War", or even "terror"'.[11]

This uncanny and transgressive modernity is made manifest here with a ghost that is a product of one nuclear disaster and an apparent echo of another, a palimpsestuous spirit who overlaps different strands of Japan's nuclear history (and, connectively, America's) and a British nuclear site and issue also. The general passing of time, and the moments and incidents that punctuate and interrupt it, are merged with specific nations and spaces and the temporally static properties of haunting. This suggests that nuclear energy and its ability or preponderance to linger means it can and does cross spatio-temporal boundaries. This 'haunting' is also evidenced in ongoing nuclear properties and processes. Robert Macfarlane suggests that '[w]e know how to make electricity from uranium and we know how to make death from it, but we still do not know how best to dispose of it when its work for us is done.'[12] The half-life of uranium-235 is around 700 million years. It decays very slowly, and this breakdown can directly kill living cells or cause alterations to DNA. Radiological contamination can also taint surfaces and substances, similar to the ways in which the gothic mode can appear in or alter other genres and forms, the mutations Smith outlines.

These lingering presences (radioactivity and the ghost it has created) have this effect on the family drama Linstrum presents. When Emma first explores the Trawsfynydd area, after she and her mother alight there, she sees the boy standing on a bridge – presumably by the Llyn Trawsfynydd reservoir. She later says to him 'I thought you were a ghost.'[13] Indeed, the film never confirms the reality of the boy, nor denies it – he is never named, and we don't see him interacting with anyone but

Emma throughout the narrative. We see nobody but the people Emma interacts with and the Fukushima ghost, the suggestion being that the boy might be one more spectre seemingly conjured by or in the orbit of the power station, which draws Emma and her attendant ghosts to it in a form of human and spatial fusion. The boy also mentions a friend we never see, Anton, from the Ukraine, another possible indication of a haunting – he is never depicted and provides a further link to broader nuclear histories. When they are exploring the power station, the boy claims that 'this place, it was used for weapons in the Cold War', and says that '[i]n the Cold War, me and Anton would be enemies, but now we go nuclear together.'[14] He also mentions Chernobyl, saying to Emma that it is now full of wolves.

Despite the fact that Trawsfynydd did not directly help to generate nuclear weapons – Magnox reactors were designed to produce both electrical power and plutonium for the British nuclear weapons programme – Chernobyl did affect Wales and its nuclear culture and environment. Seán Aeron Martin and Mari Elin Wiliam state that 'radioactive dust from the accident penetrated the uplands of North-west Wales', causing agricultural disruption – the radioactive cloud hit much of the country but North Wales in particular was prone to it settling and permeating the ground due to specific environmental conditions.[15] Furthermore, 'the catastrophe was harnessed by more conventional nuclear agitators to highlight the dangers of producing nuclear energy.'[16] Campaigners questioned the 'radiation's ownership: did it really all stem from Chernobyl or was there more sinister "domestic" radiation at work, particularly emanating from Trawsfynydd.'[17] The film echoes and responds to the cultural enmeshment and international contamination and transference, as occurred in 1986, in the narratives and incidents it stitches together – 1945, 1986, 2011, 2020 – and in the way it presents haunting and spectral connections: the ghosts here can and do move across borders (both national and material) and make connections beyond those normally established in more typical, static or spatially limited hauntings.

Although the Fukushima spirit does tell the mother's ghost that certain places are off-limits – 'this place is not for you', she says to her when she tries to cross the reservoir bridge towards the power station – spirits here are still granted far more freedom to blow across land and border than 'standard' hauntings, and they settle in the Welsh landscape in a kind of inverse of the Chernobyl disaster: they don't emanate (seemingly) from the plant but are instead drawn to it (the boy is not Welsh so has also seemingly come from elsewhere). They embody some of the concerns of the 1980s nuclear campaigners in designating Trawsfynydd a possibly dangerous presence in the landscape. This would explain in part why there is no one present in Trawsfynydd or the surrounding area in the film, and how easily Emma and the boy break into the station (they only cut one lock, and no one stops them).

A decommissioned power station would still be staffed and guarded, so either the film is using artistic license in its presentation of the station as a 'real' ruin or is framing it as a kind of phantasmagorical beacon that calls in spirits and those involved in their passing.

The film also reflects smaller aspects of nuclear processes in its more intimate, domestic narrative. Macfarlane states that 'sometimes we bury materials in order that they may be preserved for the future. Sometimes we bury materials in order to preserve the future from them. Some kinds of burial aspire to repetition and reinheritance (storage); others aspire to oblivion (disposal).'[18] Macfarlane is discussing both burials generally and the Onkalo nuclear waste storage site in Finland specifically. Spent nuclear fuel and contaminated radiological tools and materials must be either buried or submerged in water in spent fuel ponds. Emma, in her relationships with her mother and her brother, engages in the two types of storage Macfarlane outlines. She, we work out at the film's end, has left both semi-buried in secluded woodland after her brother killed her mother and Emma killed him, after years of him abusing them both. Not realising her mother has died, or in a form of denial or misconception facilitated by the company of her mother's spirit, Emma preserves her mother in a kind of buried isolation in both the woodland and at the retreat in order to protect her, to make sure she carries on 'repeating' in Emma's life. She both kills and leaves her brother in order to protect her mother and herself, and the wider world, from his sadistic and volatile behaviour going forward. She repeats this burying again when his spirit traces her position and she pushes him into one of the fuel-storage ponds at the power station. This submersion marks the start of Emma's recovery from the limbo she has found herself in: rescuing her brother – bringing him back into the present – and risking her own health by diving in to the pool herself, means that his spirit is forced to acknowledge his own volatility and culpability.

Anna Storm states that '[t]he physical and mental landscapes scarred by radioactivity, by political conflict, and by fear are intertwined with preconceptions of the possibility to clean up, to control, and to exert responsibility'.[19] Building on this sense of possibility, Hecht states that '[g]lobal warming, Western fears about the impact of the alleged 'clash of civilizations' on the world's oil supply … and Bush's bedroom relationship with the 'nuclear' industry are combining to transform nuclear power from ecological Satan to planetary saviour.'[20] Though not Emma's 'saviour' explicitly, Trawsfynydd and its nuclear properties and interiors – lit with uranium-green strip-lights that give the interior a stereotypically nuclear hue – does become the locus of the realisation that her immediate family are dead and that she has killed her own brother. His ghost, however, when she has pulled it from the radioactive storage pond, says to Emma 'You hurt me so much. It had to be done.' Though his language seems at first accusatory, by saying that she needed to hurt him to end him,

he absolves her from all wrongdoing and takes responsibility for his own actions before he sinks back into the pool.[21] Emma's submersion in the nuclear pond, while dangerous (the boy finds her and washes her to mitigate the water's harmful effects), acts conversely as a kind of cleanse.

Nuclear properties are also here implicitly contrasted with other fuels and energies: when her brother finds Emma in the retreat, he douses her in what she thinks is petrol (it is really water) and shouts 'I am the fire.' While emphasising his instability and cruelty, it also connects to traditional, more obviously polluting forms of energy – oils and coal, fossil fuels that are burnt to generate power. The brother's malignant energy is aligned with these older fuels, contradicting associations we might still retain regarding the 'unstable' nature of nuclear energy – his anger and hurt, which have seeped in violent ways into Emma and her mother's lives, are framed as akin to these older pollutants rather than the atomic forces harnessed at the plant. The nuclear washes him away – it provides a further 'clean up', a means for him to accept responsibility and to dissipate having done so. While the film overlays nuclear energy with hauntings, destruction and distortion, it also depicts Trawsfynydd and its nuclear ambiance as, if not liberator, then at least site and engine of their resolution.

Owens suggests that a '[g]host's capacity to be about things other than themselves is being recognised more fully now than ever'.[22] *Nuclear* presents individual, historical and structural modern hauntings, networking both ongoing ambivalence towards nuclear power with the ambivalence we can normally locate in the gothic mode. It literally and metaphorically accounts for the dangerous aspects of nuclear power by presenting Trawsfynydd as a 21st-century ruin (which is, essentially, what it has been) and tracing its presence and properties back to international nuclear disasters that have lasting and ghostly effects, but also obfuscates this reading by making this Welsh nuclear plant and its environs a form of safe haven for Emma and the ghost of her mother, and 'providing', through its energies and histories, a kind of spectro-historical grid which generates a guide who helps Emma's mother move into 'the next place'. This ambiguity, presented through both the real nuclear site and imagined nuclear hauntings, acknowledges nuclear power's dangers without exorcising all possibility that it might also provide a future for us, that even radioactive decay might (eventually) contribute to the creation of the future. Indeed, as of 2020, Trawsfynydd is set to house a new research facility, developing new approaches to low carbon power, nuclear energy and medical technologies that just might resolve some of the lingering negative effects of previous nuclear disasters and placate their attendant ghosts.[23]

Helena Bacon

Notes

1. Susan Owens, *The Ghost: A Cultural History* (Tate, 2017), 203.
2. Imre Szeman and Dominic Boyer, *Energy Humanities* (John Hopkins University Press, 2017), 1.
3. Gabrielle Hecht, 'Nuclear Ontologies' in *Energy Humanities*, 250.
4. Peter Bradshaw, 'Nuclear review – escape to the post-apocalyptic country' in the *Guardian* (5 November 2020), https://www.theguardian.com/film/2020/nov/05/nuclear-review-catherine-linstrum-emilia-jones-sienna-guillory (accessed 15 March 2021).
5. Gabrielle Hecht, 'Nuclear Ontologies', 250.
6. Tom Wilkie, 'Safety fears lead to nuclear plant closure' in the *Independent* (23 October 2011), https://www.independent.co.uk/news/uk/safety-fears-lead-nuclear-plant-closure-welsh-power-station-first-be-shut-down -because-possible-danger-1486111.html (accessed 15 March 2021).
7. Andrew Smith, *Gothic Literature* (Edinburgh University Press, 2007), 4.
8. Smith, *Gothic Literature*, 15.
9. Catherine Linstrum, dir., *Nuclear* (2020, Snowdonia, BFI/Ffilm Cymru Wales/S4C), DCP.
10. Linstrum, *Nuclear*.
11. Joseph Masco, *The Nuclear Borderlands* (Princeton University Press, 2006), 1.
12. Robert MacFarlane, *Underland* (Hamish Hamilton, 2019), 399.
13. Linstrum, *Nuclear*.
14. *Ibid*.
15. Seán Aeron Martin and Mari Elin Wiliam, 'Politicising Chernobyl: Wales and Nuclear Power During the 1980s', *Transactions of the Royal Historical Society,* vol. 29 (2019), 273-92.
16. Martin and Wiliam, 'Politicising Chernobyl', 275.
17. Martin and Wiliam, 'Politicising Chernobyl', 276.
18. MacFarlane, *Underland*, 409.
19. Anna Storm, *Post-Industrial Landscape Scars* (Palgrave, 2014), 47.
20. Hecht, 'Nuclear Ontologies', 250.
21. Linstrum, *Nuclear*.
22. Owens, *The Ghost*, 263.
23. Allan George, 'Unlocking the nuclear potential of Trawsfynydd' in *North Wales Chronicle* (30 September 2020), https://www.northwaleschronicle.co.uk/news/18760021.unlocking-nuclear-potential-trawsfynydd/ (accessed 15 March 2021).