DEPICTING DISASTER

A Comparative Study of the Visual Media of 20th Century Industrial Disasters in Minamata, Japan and Seveso, Italy

By

Ruth Woodfield

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Supervisor: Chiara Renzo
Second Reader: Rin Odawara

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I, the undersigned, **Ruth Woodfield**, candidate for the MA degree in History in the Public Sphere declare herewith that the present thesis titled "Depicting Disaster: A Comparative Study of the Visual Media of 20th Century Industrial Disasters in Minamata, Japan and Seveso, Italy" is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography.
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Vienna, 31 May 2025

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ABSTRACT

This thesis examines the enduring impact of two industrial disasters – mercury poisoning in Minamata, Japan, (1956) and a dioxin leak in Seveso, Italy (1976) – to explore how visual media have been used to contest hegemonic narratives and shape collective memory. This thesis asks: how have visual representations such as photography, film, documentary, and grassroots media challenged institutional silence and reframed the meaning of these events? How do these visual narratives influence public understanding of environmental damage? Despite distinct cultural and geographical contexts, both disasters followed similar trajectories of corporate and governmental denial and obfuscation. In contrast, affected communities, activists, photojournalists, and filmmakers produced counter-narratives – highlighting corporate accountability, environmental injustice, and the human cost of industrial pollution.

Using visual discourse analysis as its primary methodology, this study conducts a comparative examination of key visual texts, situating them within their broader socio-political and cultural contexts. It positions Minamata and Seveso as powerful symbols of the consequences of unregulated postwar industrialisation. The findings suggest that visual media play a vital role in shaping cultural memory, generating alternative historical narratives, and contributing to the public history of industrial disasters – offering critical insights for contemporary environmental activism and discourse.

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'There are poisons that blind you, and poisons that open your eyes.'[2]

– August Strindberg

The disasters explored in this thesis resist the conventional imagery that the term usually conjures – cataclysmic damage, crumbling infrastructure, sudden chaos. Instead, these are slow-moving, insidious events of environmental contamination, unfolding beyond the threshold of human perception. They are imperceptible to the eye, intangible to the touch, and obscured behind the technocratic façades of institutions intent on keeping their wrongdoing invisible. Yet it is the affected communities, grassroots activists, filmmakers, and photojournalists – those who brought these concealed disasters into the light – who stand at the centre of this study.

In Minamata, Japan, methylmercury discharged from the Chisso Corporation's chemical plant led to the emergence of Minamata disease in 1956, causing widespread neurological illness and death among locals who consumed contaminated seafood. Two decades later, in Seveso, Italy, a toxic gas leak from the ICMESA chemical plant released a cloud of dioxin over residential areas, displacing communities and inflicting long-term health consequences. Though these disasters occurred in distinct cultural and geographical contexts, they share meaningful connections: both were caused by industrial by-products – methylmercury and dioxin – silently infiltrating human and ecological bodies. Neither was a result of natural forces; each was shaped by corporate negligence and compounded by government inaction.

[2] August Strindberg, *Strindberg: Five Plays* (University of California Press, 2023), 296.

Crucially, both disasters followed similar trajectories of denial and obfuscation. In their aftermaths, state and corporate actors shaped 'official' narratives that minimised the events, obscured causality, and evaded accountability. Across both cases, certain themes emerge consistently: the challenge of representing imperceptible toxins, the gendered dimensions of caregiving and reproductive harm, and the intergenerational reach of industrial pollution. Temporally, these disasters, while borne of mid-twentieth century industrial expansion, later benefitted from the broader wave of environmental consciousness that gained momentum in the late 1960s and early 1970s.

This thesis investigates such disasters not only as environmental crises but also as ideological battlegrounds – spaces where meaning is made, contested, and reshaped. As historians Andy Horowitz and Jacob Remes argue, describing a disaster 'represents an act of interpretation.'[3] Disasters, in this sense, are not just physical events but social, political, and cultural constructs. Anthropologist Anthony Oliver-Smith likewise contends that disasters are simultaneously material realities and 'a multiplicity of interwoven, often conflicting, social constructions.'[4] This study engages with those conflicts: the top-down narratives disseminated by states, corporations, and mainstream media, and the bottom-up counter-narratives produced by those affected that sought to reframe the events, mobilise change and demand justice. The responses from below constitute forms of historical intervention that situate this thesis firmly within the field of public history, emphasising that disasters are not self-evident but are narrated, framed, and remembered in specific ways.

A central contribution of this thesis lies in its emphasis on *visual* counter-narratives. While prior scholarship has addressed the socio-political and legal dimensions of Minamata and Seveso, relatively little attention has been given to the role of visual media as forms of

[3] Jacob A. C. Remes and Andy Horowitz, *Critical Disaster Studies* (University of Pennsylvania Press, 2021), 1.
[4] Anthony Oliver-Smith, "Theorizing Vulnerability in a Globalized World: A Political Ecological Perspective," in *Mapping Vulnerability: Disasters, Development, and People*, ed. Greg Bankoff, Georg Frerks, and Dorothea Hilhorst (Earthscan, 2013), 10.

resistance. This research highlights a range of selected media – photography, film, documentary, alternative journalism, animation, and memory sites – as tools used by communities and activists to expose hidden suffering, contest hegemonic accounts, and reaffirm the humanity and agency of the victims.

A key conceptual framework that underpins this approach is Rob Nixon's notion of 'slow violence,' which he defines as 'a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all.'[5] The works discussed in this thesis meet Nixon's call for new representational strategies – forms of media that can give shape, urgency, and visibility to forms of harm that are otherwise difficult to perceive.

Drawing on disaster studies and media theory, this research examines the Minamata and Seveso disasters through a comparative lens, grounded in a public history perspective. These case studies offer timely insights into the role of media in shaping public perception and political accountability – insights that resonate deeply in today's era of intensifying environmental crisis.

The thesis begins by contextualising the evolution of disaster studies and charting the relevant published literature within the field. Following this, it examines how dominant narratives were constructed by corporate, governmental, and mainstream media actors. The study then analyses how visual media gave rise to counter-narratives that challenged these framings. Finally, it reflects on the contemporary legacy of Minamata and Seveso, exploring how memory is negotiated at their respective sites of disaster - where official narratives and activist histories continue to collide. Ultimately, this thesis views disasters as phenomena of public history, contending that in both Minamata and Seveso, visual media powerfully shaped their historical memory.

[5] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press, 2011), 2.

CHAPTER 1: LITERATURE REVIEW AND METHODOLOGY

To frame the approach of this thesis, the literature review begins by tracing key developments in disaster studies, highlighting the growing emphasis on human agency and the expansion of temporal frameworks. It then explores the 'cultural turn,' which redirected attention toward the ways disasters are socially constructed, experienced, and understood within specific cultural contexts. The review continues by investigating the intersections between disaster studies, media, and visual culture, before turning to definitions of 'industrial disaster' and core scholarship on the cases of Minamata and Seveso. The chapter concludes with a discussion of the study's methodological approach.

While prior research has explored the sociocultural dimensions of disaster and the media's role in shaping public perception, few studies have compared how industrial disasters are visually mediated across different cultural and geographical settings. By examining Minamata and Seveso in tandem, this thesis addresses that critical gap, offering a cross-cultural perspective on the relationship between disaster, memory, visual media, and public history.

1.1 Historical Development of Disaster Studies

Disasters have captured human attention since antiquity, prompting responses ranging from the scientific to the divine. The word *disaster* itself originates from the Italian roots *dis* and *astro* (derived from the Latin *astrum*) meaning 'bad star,' reflecting early astrological beliefs that misfortunes were caused by unfavourable planetary alignments.[6] Although such

[6] Peter Timmerman and David Etkin, "Narratives of Disaster: Sensemaking in Crisis," *Prevention Web*, 2023, 4, https://www.preventionweb.net/publication/narratives-disaster-sensemaking-crisis.

myths, traditions, and varied interpretations have long surrounded disasters, it wasn't until the 20th century that disaster research developed into a distinct academic discipline.

The 1917 Halifax Explosion marked the beginning of a systematic, structural approach to disaster research, led by sociologist Samuel Henry Prince. When a munitions ship collided with another vessel in Halifax Harbour, Canada, it caused the largest human-made explosion prior to the atomic bomb, killing approximately 2,000 people.[7] Widely regarded as the 'founding father' of disaster studies, Prince examined the explosion and its aftermath in his 1920 dissertation, 'Catastrophe and Social Change.'[8] His analysis documented the sequence of events, from the immediate devastation and breakdown of social order, to the behavioural responses of residents, and concluding with the community's eventual rebuilding.

His pioneering work culminated in the argument that disasters act as catalysts for 'social change,' which Prince defined as 'rapid mutations which accompany sudden interferences with the equilibrium of society.'[9] This perspective established the roots of disaster research as a sociological endeavour, centred on understanding the impact of disasters on social systems and the ways in which societies adapt and recover in their fallout.

The main body of disaster studies, however, did not come into existence until after World War II, when the Cold War's geopolitical tensions fuelled growing interest in disasters as subjects of scientific analysis. The U.S. military, anticipating the possibility of a nuclear attack by the Soviet Union, sought to understand how communities might respond to sudden and unexpected crises.[10] To explore this, they funded research into the social dynamics of communities struck by disasters, which were seen as analogous to surprise enemy attacks. As

[7] Rasmus Dahlberg, Olivier Rubin, and Morten Thanning Vendelø, *Disaster Research: Multidisciplinary and International Perspectives* (Routledge, 2015), 3.
[8] Dahlberg, Rubin, and Vendelø, *Disaster Research*, 3.
[9] Samuel Henry Prince, "Catastrophe and Social Change: Based upon a Sociological Study of the Halifax Disaster" (Dissertation, 1920), 15, https://www.gutenberg.org/files/37580/37580-h/37580-h.htm.
[10] Gary R. Webb, "The Cultural Turn in Disaster Research: Understanding Resilience and Vulnerability through the Lens of Culture," in *Handbook of Disaster Research*, ed. Havidán Rodríguez, William Donner, and Joseph E. Trainor (Springer, 2018), 111.

sociologist Ronald Perry observes, 'societal and governmental concerns at that time raised awareness about threats of an external attack; to some extent, these appear to be reflected in the notion that disasters were both driven by agents and external to a focal society or social group.'[11]

Among the earliest beneficiaries of this funding was a team led by social scientist Charles Fritz at the University of Chicago's National Opinion Research Center.[12] Fritz published a seminal article simply entitled *Disaster* in 1961, which provided an oft-cited definition of the term:

> An event, concentrated in time and space, in which a society or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfilment of all or some of the essential functions of society is prevented.[13]

This sociological framing influenced many early researchers. In 1962, sociologist Gunnar Sjöberg similarly described disaster as a 'severe, relatively sudden, and frequently unexpected disruption' of a social system resulting from an uncontrollable precipitating event.[14] Responding to similar concerns of the time, the Disaster Research Centre (DRC) was founded in 1963 by sociologists Enrico Quarantelli, Russel Dynes, and Eugene Haas. The DRC became a leading institution in the field, training multiple generations of disaster scholars.[15]

During this foundational period, disaster studies were shaped by an evidently sociological approach that focused on the immediate aftermath of disastrous events. As emergency management scholar Gary Webb observes, the field was 'dominated by a

[11] Ronald W. Perry, "Defining Disaster: An Evolving Concept," in *Handbook of Disaster Research*, ed. Havidán Rodríguez, William Donner, and Joseph E. Trainor (Springer, 2018), 6.
[12] Webb, "The Cultural Turn in Disaster Research," 111.
[13] Charles E. Fritz, "Disaster," in *Contemporary Social Problems: An Introduction to the Sociology of Deviant Behavior and Social Disorganization*, ed. Robert K. Merton and Robert A. Nisbet (Harcourt, Brace & World, 1961), 655.
[14] Gunnar Sjöberg, "Disasters and Social Change," in *Man and Society in Disaster*, ed. George Walter Baker and Dwight W. Chapman (Basic Books, 1962), 357.
[15] Dahlberg, Rubin, and Vendelø, *Disaster Research*, 5.

structural perspective' that prioritised practical knowledge of disaster response and recovery.[16] Whilst distinctions were made between 'technological' disasters, arising from direct human actions, and 'sudden-onset natural hazards' seen as 'acts of God,' attention was mostly paid to the latter category, with little exploration of how these categories might overlap.[17] Embedded in this approach was a prevailing view of disasters as abrupt, time-bound occurrences – unexpected and external to the societies they impacted, rather than phenomena shaped or exacerbated by human actions.

Beginning in the late 1960s and intensifying through the 1970s, a growing wave of environmental awareness began to challenge dominant paradigms that framed disasters as purely natural incidents. Influenced by the broader environmental movement and the emergence of ecological critique, scholars increasingly questioned the neutrality of 'natural disasters,' instead highlighting the decisive role of human decisions, institutional failures, and systemic inequalities in shaping disaster outcomes. Major disasters during this period – such as the 1972 Managua earthquake in Nicaragua, which devastated the capital and exposed deep political corruption; and the 1976 Guatemala earthquake, which disproportionately affected impoverished rural communities – brought widespread attention to how social and political conditions could amplify the impacts of natural hazards.

This period signalled a paradigm shift in disaster studies, as researchers moved away from hazard-centric explanations and toward a more nuanced understanding of disasters as socially produced events. A key turning point in this intellectual reorientation was the publication of disaster researchers Phil O'Keefe, Ken Westgate and Ben Wisner's seminal 1976 article, 'Taking the Naturalness out of Natural Disasters.' The authors forcefully argued that the root causes of disasters lay not in the physical events themselves, but in the economic

[16] Webb, "The Cultural Turn in Disaster Research," 110.
[17] Duane A. Gill and Liesel A. Ritchie, "Contributions of Technological and Natech Disaster Research to the Social Science Disaster Paradigm," in *Handbook of Disaster Research*, ed. Havidán Rodríguez, William Donner, and Joseph E. Trainor (Springer, 2018), 41.

and structural conditions that left certain populations exposed and vulnerable.[18] This perspective was echoed by sociologist Kathleen Tierney, who argued in *The Social Roots of Risk* that 'looking at disasters as social productions requires a shift in thinking, away from the notion that the forces of nature… produce disasters and toward a fuller understanding of the role that social, political, economic, and cultural factors play in making events disastrous.'[19]

Along with this transformation came a broadening of the temporal scope of disaster studies. Rather than focusing solely on sudden, isolated incidents, researchers began to explore disasters as extended processes, including those intensified by the growth of industrial production. Journalist Barry Turner was among the first to challenge the moment-of-impact model, instead his work *Man-Made Disasters* highlighted how administrative, technological, and organisational failures accumulate over time to produce catastrophe. He called for 'an understanding of the nature of disasters, of the reasons why disasters emerge, as opposed to an account of what happens when disasters strike.'[20]

These developments culminated in sociologist Ulrich Beck's *Risk Society: Towards a New Modernity* in 1986, a defining text that reframed environmental hazards as endemic to modern industrial society. The Chernobyl disaster of the same year served as a stark illustration of Beck's thesis, marking a turning point that underscored how modernisation had produced a 'catastrophic society' in which risk is embedded in the fabric of everyday life.[21] Consequently, disaster studies increasingly recognised the complex interplay between natural hazards and human-induced factors, highlighting how social, political, and technical processes blur the lines between 'natural' and 'technological' disasters.

[18] Phil O'Keefe, Ken Westgate, and Ben Wisner, "Taking the Naturalness out of Natural Disasters," *Nature* 260, no. 5552 (1976): 566, https://doi.org/10.1038/260566a0.
[19] Kathleen J. Tierney, *The Social Roots of Risk: Producing Disasters, Promoting Resilience* (Stanford University Press, 2014), 5.
[20] Barry A. Turner, *Man-Made Disasters* (Wykeham Publications, 1978), 83.
[21] Ulrich Beck, *Risk Society: Towards a New Modernity* (Sage Publications, 1992), 24.

If the late 20th century brought a corrective to earlier structural and externalised definitions of disaster, it was not until the 1990s and 2000s that scholars turned their attention to cultural dimensions. This 'cultural turn,' part of a broader intellectual shift across the humanities and social sciences, prompted disaster researchers to examine symbols, rituals, memory, religion, and storytelling as essential to how disasters are experienced and understood. This expanded focus opened the door for more interdisciplinary engagements, evident in a series of key publications.

Anthropologists Susannah Hoffman and Anthony Oliver-Smith, in their landmark volume *The Angry Earth: Disaster in Anthropological Perspective*, demonstrates how culture has the capacity to shape vulnerability, response, and recovery post-disaster. They emphasise 'how they [the populace] respond to the calamity or potential for a calamity both recounts and reinvents their cultural system.'[22] Geographer Fred Krüger's *Cultures and Disasters: Understanding Cultural Framings in Disaster Risk Reduction* similarly examines the ways in which cultural contexts shape both the perception of risk and approaches to disaster mitigation. The book highlights, for example, how religious beliefs can impact decisions around evacuation, and how traditional building practices influence vulnerability in earthquake-prone regions.

Furthermore, journalist Gregory Button's *Disaster Culture: Knowledge and Uncertainty in the Wake of Human and Environmental Catastrophe* explores how disaster narratives are constructed, highlighting how interest groups employ public relations tactics to either downplay or amplify uncertainty to serve political objectives. Historians Christof Mauch and Christian Pfister summarised this scholarly development by succinctly noting that

[22]Anthony Oliver-Smith and Susanna Hoffman, *The Angry Earth: Disaster in Anthropological Perspective* (Routledge, 1999), 7.

'different cultures, societies, and nations have adopted specific styles of and strategies for coping with disaster.' [23]

Accordingly, it was during this cultural turn that historians became increasingly involved in disaster studies. While earlier historical accounts of major catastrophes such as the 1755 Lisbon earthquake existed, they were often isolated narratives focused on description, moral interpretation, or technological advancement. The arrival of environmental history in the 1970s, however, provided new impetus. Donald Worster's *Dust Bowl: The Southern Plains in the 1930s* was a foundational work, illustrating how environmental disaster was inextricably linked to capitalist exploitation and state policy.

By the 1990s and 2000s, historians began to participate in disaster research in earnest, bringing with them novel perspectives. They further extended the temporal framing of disaster, using historical records to trace the long-term socio-economic and cultural consequences of hazards. As historian Bas van Bavel and colleagues argue, 'history lends itself to this end because of the opportunity it offers to identify distinct and divergent social and environmental patterns and trajectories.'[24] Historians also brought a renewed focus to how disasters are remembered and narrated.

Historian Theodore Steinberg, in his book *Acts of God: The Unnatural History of Natural Disaster in America*, contends that labelling disasters solely as 'acts of God' or natural occurrences hides the truth that systematic inequalities leave some Americans better shielded from these events than others.[25] Similarly, Greg Bankoff, Uwe Lübken, and Jordan Sand's *Flammable Cities: Urban Conflagration and the Making of the Modern World* examines how fire has shaped urban development throughout history. Bas van Bavel et al.'s

[23] Christof Mauch and Christian Pfister, *Natural Disasters, Cultural Responses: Case Studies toward a Global Environmental History* (Lexington Books, 2009), 9.
[24] Bas Van Bavel et al., *Disasters and History: The Vulnerability and Resilience of Past Societies*, ed. Maïka de Keyzer, Eline Van Onacker, and Tim Soens (Cambridge University Press, 2020), 1.
[25] Theodore Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (Oxford University Press, 2000).

Disasters and History: The Vulnerability and Resilience of Past Societies marked a milestone in the field, offering the first comprehensive historical overview of hazards and vulnerability across diverse contexts.

The combined contributions of sociologists, anthropologists, geographers, journalists, and historians have reshaped disaster studies into a deeply interdisciplinary field. Disasters are no longer viewed as anomalous, natural occurrences, but as complex social phenomena influenced by structural inequalities, cultural interpretations, and historical contexts. This cultural shift laid the foundation for increasing scholarly interest in the mediation of disasters – that is, how they are represented, communicated, and consumed across various media platforms. By the early 21st century, researchers began to see media not simply as a channel for disseminating information during crises, but as a powerful force in shaping public understanding, collective memory, and the political dimensions of disaster.

The ethics of viewing and the commodification of suffering emerged as central concerns. Susan Sontag's 2003 work *Regarding the Pain of Others* in played a pivotal role in this shift, critiquing the voyeuristic tendencies of war and disaster photography and questioning the effects of repeated exposure to images of suffering. This perspective is further exemplified in later works, including Susan Moeller's *Compassion Fatigue: How the Media Sell Disease, Famine, War and Death* and Luc Boltanski's *Distant Suffering: Morality, Media and Politics*, both of which critically examine how media representations shape public perception and the moral implications of disaster spectatorship. Moreover, Erika Doss has examined the visibility of disasters in public contexts in *Memorial Mania: Public Feeling in America*, interrogating the tension between individual trauma and collective grief.

From the 2010s onward, the rise of digital and social media further revolutionised disaster communication. Platforms such as Twitter, Facebook, and YouTube facilitated bottom-up reporting and citizen journalism, enabling affected individuals to document and

disseminate their experiences in real time. This participatory media landscape created new possibilities for disaster witnessing. George and Kim Haddow's *Disaster Communications in a Changing Media World* examines how emerging technologies – from mobile alerts to social networks – are reshaping disaster preparedness and response. Timothy Recuber's *Consuming Catastrophe: Mass Culture in America's Decade of Disaster* critiques the emotional and sensational nature of disaster coverage, emphasising how media, particularly digital platforms, craft narratives that evoke empathy and fear to maintain audience engagement. As Isak Winkel Holm encapsulates:

> Disasters are media-borne because they are primetime news in the media but also, in a wider sense, because they are culturally mediated, filtered through society's collective repertoire of metaphors, images, narratives and concepts that govern how we make sense of senseless disasters.[26]

Collectively, these developments illustrate a distinct progression in disaster research. The field has moved beyond a focus on immediate impacts and emergency responses to embracing more nuanced investigations of cultural dynamics, media representation, and digital dissemination. This shift reflects the field's broadening scope and incorporation of new and important avenues of inquiry. These perspectives are vital for this study, offering deeper insight into the complex social and symbolic dimensions of disaster.

1.2 Defining Industrial Disaster

Shifting from the broader overview of disaster studies to the specific focus of this thesis, hereafter the events of Minamata and Seveso are classified as *industrial disasters*. In order to justify this categorisation, it is first necessary to establish a clear definition of what constitutes an industrial disaster.

[26] Isak Winkel Holm, "The Cultural Analysis of Disaster," in *The Cultural Life of Catastrophes and Crises*, ed. Carsten Meiner and Kristin Veel (De Gruyter, 2012), 19.

As previously discussed, the definition of 'disaster' itself has evolved and become increasingly complex throughout the development of disaster studies. This complexity has largely been shaped by the growing influence of human agency in disasters and the increasingly interdisciplinary nature of the field. Risk and disaster reduction scholar David Alexander has aptly observed that the discipline in fraught with a 'minefield of definitions,' a direct result of the plurality of viewpoints drawn from scholars of geography, sociology, history, anthropology, and development studies. [27]

The task of defining disasters is rendered even more challenging in what is tentatively being termed our contemporary 'Age of Disaster.'[28] In this context, vulnerability to disasters is often regarded as a defining feature of the Anthropocene – the new geological epoch in which humanity has come to exert direct influence on the fundamental conditions of the planetary ecosystem.[29] Technological innovation has played a significant role in this dynamic. Historian William McNeill has suggested that 'every gain in precision in the coordination of human activity and every heightening of efficiency in production were matched by a new vulnerability to breakdown.'[30] This observation highlights the paradox at the heart of technological progress: that advances in efficiency and control simultaneously introduce new and potentially catastrophic risks.

While the overlapping conditions and blurred boundaries that characterise many modern disasters are important to acknowledge, typologies remain in place to help categorise these events more precisely. Such frameworks provide researchers with greater analytical clarity when examining specific cases. A crucial tool in this effort is the Emergency Events

[27] David Alexander, "An Interpretation of Disaster in Terms of Changes in Culture, Society and International Relations," in *What Is a Disaster? New Answers to Old Questions*, ed. Ronald W. Perry and Enrico L. Quarantelli (Xlibris, 2005), 26.
[28] Bavel et al., *Disasters and History*, 9.
[29] Bavel et al., *Disasters and History*, 9.
[30] William Hardy McNeill, *The Global Condition: Conquerors, Catastrophes, and Community* (Princeton University Press, 1992), 148.

Database, created in 1988 as a comprehensive global repository of disaster data. [31] This database distinguishes between 'natural' hazards – typically arising from extreme weather or other environmental phenomena – and 'complex and technological' hazards, which stem directly from human activities. Within this latter category, industrial disasters are specifically defined as 'technological accidents of an industrial nature/involving industrial buildings.' [32]

Disaster Management researcher Damon Coppola adds further nuance to this classification in *Introduction to International Disaster Management*, where he asserts that industrial hazards are an inherent component of modern society. According to Coppola, 'many of our industrial processes depend upon one or more hazardous materials (solids, liquids, or gases) that, when removed from their controlled setting, can cause injury and death to humans and animals and can devastate the environment.' [33] This insight reinforces the notion that industrial disasters are not anomalous, but rather embedded within the very structures of industrialised production.

The *International Journal of Disaster Risk Management* also identifies common contributing factors to industrial disasters, stating that 'industrial disasters are often the result of a combined influence and interaction of technical failures, human errors, and inadequately developed safety procedures.'[34] However, this characterisation tends to focus on accidental or negligent causes, omitting a critical dimension that is especially relevant in the cases of Minamata and Seveso: corporate malfeasance. In both of these instances, companies were not merely negligent but actively complicit in both causing and concealing the unfolding disasters. This dimension of deliberate wrongdoing – the conscious decisions made by

[31] "Classification Glossary," The Emergency Events Database EM-DAT, accessed March 12, 2025, https://doc.emdat.be/docs/data-structure-and-content/glossary/.
[32] "Complex and Technological Hazards," The Emergency Events Database EM-DAT, accessed March 12, 2024, https://doc.emdat.be/docs/data-structure-and-content/glossary/complex-and-technological-hazards/.
[33] Damon P. Coppola, *Introduction to International Disaster Management* (Butterworth-Heinemann, 2015), 124.
[34] Vladimir M. Cvetković, Renate Renner, and Vladimir Jakovljević, "Industrial Disasters and Hazards: From Causes to Consequences — a Holistic Approach to Resilience," *International Journal of Disaster Risk Management* 6, no. 2 (2024): 149–68, https://doi.org/10.18485/ijdrm.2024.6.2.10, 149.

industrial actors to prioritise profit over safety and transparency – is essential to understanding the full scope of these events.

Alongside scientific and technical disciplines, aforementioned sociological perspectives have played a foundational role in shaping the field of disaster studies. Sociologists have long emphasised the significance of human agency in the context of technological disasters, distinguishing them from natural disasters – even those shaped by human influence – by emphasising the central role of human decisions and actions. William Freudenburg draws a crucial distinction based on the nature of the 'triggering event.' He explains that 'if the triggering event could have taken place even if no humans were present,' the disaster is best classified as 'natural.' Conversely, if the event 'inherently required human action,' it must be understood as 'technological.'[35]

The disasters examined in this thesis are unequivocally human induced. From the man-made chemicals that contaminated the environments of Minamata and Seveso, to the industrial systems that enabled such pollution, to the human negligence and active wrongdoing that allowed these situations to unfold and persist – every aspect of these events reflects the central role of human agency. It is therefore appropriate, and indeed necessary, to categorise them as industrial disasters within the broader classification of technological disasters.

In order to synthesise the various definitions discussed and establish a working definition for the purposes of this thesis, industrial disasters will be defined as follows:

> Hazardous events caused by industrial companies, whether through accident, negligence, or deliberate wrongdoing, that result in significant harm, such as severe damage, injury or loss of life, and long-lasting consequences for both the surrounding population and the environment.

[35] William R. Freudenburg, "Contamination, Corrosion and the Social Order: An Overview," *Current Sociology* 45, no. 3 (1997): 24-25, https://doi.org/10.1177/001139297045003002.

This definition will serve as a foundational conceptual framework throughout this thesis, offering a comprehensive lens through which to analyse the complex interactions between industrial practices, human agency, and environmental degradation.

1.3 The Literature on Minamata and Seveso

Turning to the industrial disasters this thesis is concerned with, the literature on Minamata and Seveso is a smaller but significant field. While abundant research exists within toxicology, environmental science, and public health spheres, historical analyses – especially from a public history perspective – are scarce. This absence creates a critical opportunity for deeper inquiry, particularly into the visual and commemorative dimensions of these events.

Historian Timothy S. George's *Minamata: Pollution and the Struggle for Democracy in Postwar Japan* is a foundational text in the Anglophone literature. [36] His detailed reconstruction of the Minamata disaster examines not only the environmental and medical aspects, but also the grassroots activism that emerged in response. George reveals how local resistance shaped postwar Japanese democracy, offering valuable insight into the complex socio-political consequences of environmental catastrophe. [37] Building on this work, Brett Walker's *Toxic Archipelago: A History of Industrial Disease in Japan* situates Minamata within a broader ecological and historical context, linking toxic outbreaks to Japan's overarching industrial development. Simon Avenell's *Transnational Japan in the Global Environmental Movement* extends this analysis by highlighting the global influence of Japanese environmental activism since the 1960s.

[36] *This thesis primarily relies on sources from English and Italian contexts but acknowledges a gap in the accessible literature due to the author's language limitations in Japanese. To address this, translations have been utilised where possible to incorporate key Japanese materials. Additionally, the author's research in Minamata was significantly enriched by the invaluable support of the NGO Soshisha, who provided access to additional resources that would have otherwise been unavailable.*

[37] Timothy S. George, *Minamata: Pollution and the Struggle for Democracy in Postwar Japan* (Harvard University Press, 2001).

A parallel but distinct body of work surrounds the Seveso disaster. The publication that lies closest to the heart of this thesis is Monica Seger's *Toxic Matters: Narrating Italy's Dioxin*. Exploring narrative and cultural responses to the industrial disasters of Seveso and Taranto, Seger emphasises the potential of storytelling as a means for understanding and reclaiming agency in toxic environments. Her insights into cultural production as a conduit for memory and meaning are crucial to this study. Furthermore, environmental sociologist Laura Centemeri's *Ritorno a Seveso: il Danno Ambientale, il Suo Riconoscimento, la Sua Riparazione* (Return to Seveso: Environmental Damage, Its Recognition, Its Repair) offers a comprehensive timeline of the disaster and its social and political impacts. Her scholarship, including the article 'The Seveso Disaster Legacy,' explores Seveso's community fragmentation and the challenges of contested environmental remediation.

Despite the significance of existing scholarship on Minamata and Seveso, much of the research remains collectively anchored in grassroots activism, socio-political impacts, and the reconstruction of events surrounding the disasters. The role of visual media in these contexts has largely been overlooked as a subject of analysis in its own right. Moreover, a cross-cultural comparison between Minamata and Seveso remains absent. While both disasters have been well-examined in their respective national contexts, the meaningful connections between these two seemingly distinct incidents – particularly through the lens of visual documentation and memorialisation – has yet to be explored. By examining two major disasters with distinct cultural and political backgrounds, this research offers a rare cross-cultural perspective in a field still disproportionately shaped by North American scholarship.

This thesis seeks to fill this gap by examining how visual media have shaped public narratives and collective memory in both cases. It investigates how affected communities, grassroots activists, filmmakers and photographers have employed visual methods not only to document suffering, but also to challenge dominant, 'official' accounts that minimised or

deflected state and corporate accountability – producing powerful works of public history in the process.

Situating these visual counter-narratives within their broader social, cultural, and political contexts, this research contributes to the growing 'visual turn' in disaster studies. It explores how visual representations evolved into tools of resistance and education, particularly in the twentieth century's pre-digital media landscape, when public access to information was more centralised and controlled – making visual media crucial for activists to raise awareness.

This thesis also examines the role of museums, memorials, and commemorative practices in shaping ongoing memory work. It provides valuable insights into how post-disaster narratives are constructed and contested, particularly the persistent tension between official attempts to frame these events as resolved and activist-driven efforts to highlight their enduring consequences.

Ultimately, this research addresses a critical lacuna by offering a comparative, historically grounded, and visually focused analysis of how Minamata and Seveso have been represented and remembered over time.

1.4 Approach and Visual Methodology

To navigate this uncharted territory, this thesis analyses a range of rich visual representations of the Minamata and Seveso disasters. It investigates how dominant narratives of control, containment, and denial have been shaped by powerful institutions, and how subaltern groups challenge these narratives through diverse visual expressions.

Given this emphasis on visual culture, it is essential to clarify the scope and variety of the primary sources under analysis. These include photography and photobooks, documentary and fictional films, a science magazine, animated film, comic books, as well as museums and

memorial sites. This comprehensive, holistic selection reflects the many visual forms through which counter-narratives surrounding Minamata and Seveso have been articulated.

These sources naturally offer differing ideas, intentions, and aesthetic strategies, as evidenced by their diversity of formats. Nevertheless, they frequently converge around key thematic concerns: the human cost of industrial pollution, effects on women and reproductive health, corporate accountability, environmental harm, public memory, and enduring legacies. The variety of form, focus and affective charge among these sources underscores the need for a methodological framework capable of addressing their collective complexity.

To this end, the study employs visual discourse analysis as its methodological framework, drawing on discourse theory and semiotics. Guided by the work of visual studies scholar Peggy Albers, this approach treats visual materials as 'visual texts' – dynamic messages embedded within broader discursive systems. As Albers explains, visual discourse analysis 'addresses the discourses that emerge within visual text, the text itself, the macro and micro conversations surrounding the making and viewing of texts, and the visual text as a communicative event.' [38] She further highlights the power of visual imagery to 'act as a force on viewers to encourage particular actions or beliefs.' [39] In this context, visual discourse analysis is especially well-suited to revealing how visual media construct meaning, shape perception, and reflect or challenge prevailing cultural narratives.

Accordingly, this study will focus on four key factors when analysing visual media: (i) semiotics, examining the denotative and connotative meanings in each visual artefact, (ii) context, situating the visuals within the evolving histories of the Minamata and Seveso disasters, (iii) power and ideology, assessing how visual media can subvert dominant, state-sponsored narratives; and (iv) affective impact and reception, considering the emotional

[38] Peggy Albers, "Visual Discourse Analysis: An Introduction to the Analysis of School-Generated Visual Texts," in *56th Yearbook of the National Reading Conference*, ed. Deborah Wells Rowe (National Reading Conference, Inc., 2007), 84.
[39] Peggy Albers, "Visual Discourse Analysis," 85.

responses the visuals elicit and their influence on processes of meaning-making. Through this lens, the thesis uncovers recurring visual tropes and interrogates their role in amplifying grassroots voices and articulating resistance.

The structure of the thesis reflects this methodological orientation. Chapter 2, The Formation of Dominant Narratives, establishes the foundational context by presenting detailed case studies of both disasters. It examines how these events were initially framed by state, mainstream media, and corporate discourses, emphasising the mechanisms through which dominant narratives take shape. The comparative analysis in Section 2.3 draws out similarities and differences in the narrative strategies applied to both events, while Section 2.4 highlights the critical role of visual media as a potential tool to challenge these perspectives.

Building on this groundwork, Chapter 3, Counter-Narratives through Visual Media, shifts focus to acts of resistance and activism, exploring how key groups have used visual media to challenge hegemonic accounts. This chapter examines the rise of environmental consciousness and the emergence of grassroots movements, while sections 3.2 to 3.5 delve into the visual representations themselves. Chapter 4, Disaster Legacy and Memorialisation, addresses how the memory of these disasters has been preserved and reinterpreted. Section 4.1 discusses the unique role of animation in shaping collective memory, and Section 4.2 explores how the legacies of Minamata and Seveso remain contested in contemporary discourse, reflecting broader struggles over historical accountability and justice.

CHAPTER 2: THE FORMATION OF DOMINANT NARRATIVES

This chapter examines how powerful corporate and state actors shaped and safeguarded the prevailing narratives surrounding Minamata and Seveso. These narratives, often framed as objective or natural accounts, serve to deflect scrutiny and reinforce existing power structures. As psychologists Michael Bamberg and Molly Andrews have observed, one defining feature of dominant narratives is their 'ability to evade analysis,' allowing them to enjoy 'a status more or less unchallenged, relying instead on commonly held assumptions about the nature of reality.'[40] Likewise, disaster management scholars Peter Timmerman and David Etkin contend that the 'social construction of disaster narratives often serves the interests of power,' shaping how such events are understood and managed.[41]

Building on these observations, this chapter examines how the framing of Minamata and Seveso influenced public perception in ways that served hegemonic interests. It begins by outlining the socio-economic conditions that enabled these industries to operate with little oversight, followed by a factual timeline of each disaster. This sets the stage for the next chapter's focus on counter-narratives that challenged these dominant accounts.

2.1 Postwar Expansion and the Potential for Industrial Disasters

Before examining the Minamata and Seveso disasters themselves, it is important to first understand the broader postwar conditions and industrial context that allowed them to emerge. The aftermath of World War II plunged both Japan and Italy into economic ruin, political upheaval, and social instability. Yet, in the decades following the conflict, each country underwent an economic transformation that reshaped their global standing. This rapid

[40] Michael G. W. Bamberg and Molly Andrews, *Considering Counter Narratives: Narrating, Resisting, Making Sense* (John Benjamins Publishing, 2004), 10.
[41] Timmerman and Etkin, "Narratives of Disaster," 3.

postwar industrial expansion, often termed an 'economic miracle' in both nations, was fuelled by foreign aid, internal reforms, and technological development. However, this accelerated, often unregulated industrialisation also laid the groundwork for a rise in industrial disasters. The very factors that powered these nations' ascents – speed, scale, and intensity of industrialisation – also created dangerous vulnerabilities in environmental and occupational safety.

In Japan, the seeds of economic recovery were planted during the U.S. occupation from 1945 to 1952. The devastation of Japan's industrial infrastructure had been nearly total, with industrial production in 1946 falling to just 27.6% of prewar levels.[42] However, under the guidance of American reforms, Japan underwent sweeping transformations: the dissolution of *zaibatsu* conglomerates, land redistribution, and labour democratisation laid the foundation for a more equitable and competitive economy.[43] The Korean War served as a catalyst for revitalisation, as American military procurement orders from Japan spurred manufacturing and technological upgrades.[44] The Japanese government, led by the influential Ministry of International Trade and Industry (MITI), also played a central role in guiding the country's rapid ascent. Through strategic investment in heavy industries such as petrochemicals and steel, as well as protectionist policies favouring domestic production, Japan's industrial output skyrocketed.[45] From 1958 to 1973, Japan's real GDP expanded four-fold, boosted further by Prime Minister Hayato Ikeda's 'Income Doubling Plan.'[46]

Italy, though starting from a different political context, followed a similar path. Devastated by wartime destruction and economic instability, postwar Italy transformed itself

[42] Ichirō Nakayama, *Industrialization of Japan* (Centre for East Asian Cultural Studies, 1963), 7.
[43] Masahiro Takada, "Japan's Economic Miracle: Underlying Factors and Strategies for the Growth" (Thesis, 1999), 3, https://www.lehigh.edu/~rfw1/courses/1999/spring/ir163/Papers/pdf/mat5.pdf.
[44] Masahiro Takada, "Japan's Economic Miracle," 3.
[45] U.S. Congress, Office of Technology Assessment, "Japanese Industrial Policy: The Postwar Record and the Case of Supercomputers," in *Competing Economies: America, Europe, and the Pacific Rim* (U.S. Government Printing Office, 1991), 239.
[46] Takatoshi Ito and David E. Weinstein, "Japan and the Asian Economies: A 'Miracle' in Transition," *Brookings Papers on Economic Activity*, no. 2 (1996): 206, https://doi.org/10.2307/2534622.

between the 1950s and early 1970s. Like Japan, Italy benefitted significantly from foreign aid, particularly through the Marshall Plan, which provided crucial capital and technological assistance.[47] Integration into European institutions such as the European Coal and Steel Community, and later the European Economic Community, opened markets and attracted investment.[48]

Industrial expansion in Italy was marked by substantial infrastructure investment, a surge in manufacturing, and the movement of millions from rural Southern Italy to the industrialised North. The nation's agricultural workforce diminished dramatically between 1951 and 1971, whilst 2.3 million people 'entered the factory gates,' as industrial employment grew from 40% to 55% of the total workforce.[49] During the critical five-year period from 1958 to 1963, Italy's GNP doubled, and for the first time in its history, industry surpassed agriculture as the primary source of national income.[50]

In both Japan and Italy, these dramatic shifts brought significant social and environmental consequences. Nor was the rest of the world untouched – rather, it was part of a global transformation. As environmental historian Nancy Langston explains:

> Since World War II the production of synthetic chemicals has increased more than thirtyfold. The modern chemical industry, now a global enterprise of $2 trillion annually, is central to the world economy, generating millions of jobs and consuming vast quantities of energy and raw materials.[51]

Explosive economic development outpaced the capacity of governments to establish and enforce effective safety and environmental regulations. The sheer pace and intensity of

[47] Nicola Bianchi and Michela Giorcelli, "Reconstruction Aid, Public Infrastructure, and Economic Development: The Case of the Marshall Plan in Italy," *The Journal of Economic History* 83, no. 2 (2023): 502, https://doi.org/10.1017/S0022050723000128.
[48] Christian Grabas, "Planning the Economic Miracle? Industrial Policy in Italy between Boom and Crisis, 1950–1975," in *Industrial Policy in Europe after 1945: Wealth, Power and Economic Development in the Cold War* (Palgrave Macmillan, 2014), 135.
[49] Stefania Barca, "Work, Bodies, Militancy: The 'Class Ecology' Debate in 1970s Italy," in *Powerless Science? Science and Politics in a Toxic World*, ed. Soraya Boudia and Nathalie Jas (Berghahn Books, 2014), 116.
[50] Stefania Barca, "Work, Bodies, Militancy," 116.
[51] Nancy Langston, *Toxic Bodies: Hormone Disruptors and the Legacy of DES* (Yale University Press, 2010), 17.

industrialisation created conditions ripe for industrial disasters – whether through toxic emissions from Japan's chemical plants or hazardous working conditions in Italy's chemical factories. Historian Michelle Murphy suggests that, within this shifting landscape, the traditional boundary between 'us' and the 'outside' has broken down. In discussing our 'chemical embodiment,' she asserts that 'in the twenty-first century, humans are chemically transformed beings.'[52]

Even before this perspective took hold, two major industrial disasters had already brought this transformation into sharp focus. A closer look at the post-war trajectories of Japan and Italy reveals strikingly parallel patterns: both nations pursued economic dominance through industrial power, inadvertently laying the groundwork for catastrophes such as the Minamata and Seveso disasters.

2.2 The Minamata Disaster

In 1907, the small coastal town of Minamata in Kumamoto Prefecture, Japan, was grappling with economic collapse. Its traditional industries – salt production and coal transport – had become obsolete. Salt production had been monopolised by the central government to offset the costs of the Russo-Japanese War, and electricity supplied to nearby mines rendered coal carting redundant.[53] It was in this climate of economic desperation that local Minamata samurai descendant Eiki Maeda managed to persuade Shitagau Noguchi,[54] a Tokyo engineering graduate, to establish a calcium carbide factory in the town.[55] By 1908, the

[52] Michelle Murphy, "Chemical Regimes of Living," *Environmental History* 13, no. 4 (2008): 695, https://www.jstor.org/stable/25473297.
[53] George, *Minamata*, 16.
[54] *Please note, for the purposes of this text, Japanese names are presented in the Western name order (given name followed by family name) to maintain consistency with the treatment of other names, such as Italian and other Western naming conventions.*
[55] George, *Minamata*, 17.

factory was operational, and later that year it merged with Sogi Electric to form 'Nihon Chisso Hiryo K.K.' (Japan Nitrogenous Fertilizers Inc.) – hereafter referred to as Chisso.[56]

Over the following decades, Chisso transformed Minamata into a flourishing industrial hub. The town's population swelled from 20,000 in 1921 to 50,000 by 1956, while Chisso expanded into a corporate conglomerate boasting 48 subsidiaries by 1941.[57] The company garnered a national reputation for technological innovation and was celebrated as a model of industrial advancement. Yet, behind its façade of modernity, Chisso was notorious for its inhumane labour practices. Noguchi reportedly advised managers, 'don't think of workers as people, use them like cattle and horses.'[58]

Minamata evolved into what many described as Chisso's 'castle town,' in reference to the cities dominated by feudal lords in the Edo period, in which all aspects of life were subordinated to the corporation.[59] Social hierarchies remained rigid, merely updated for the industrial age. As historian Timothy George observed:

> The elite from Tokyo scorned the crude country bumpkins of Minamata, the descendants of samurai looked down on the commoners, executives looked down on blue-collar workers, townspeople looked down on those in outlying farming and fishing hamlets, farmers looked down on fisherfolk, and the native born looked down on immigrants.[60]

Factory accidents, toxic odours, and environmental degradation became part of daily life. As one resident recalled, 'the company talked about "safety, safety," but that was just putting a fig leaf over their production-first policy, telling everyone to produce just one more ton…'[61] Still, the residents remained tethered to the company, which by the 1950s provided employment for nearly a quarter of the town's population. Acetaldehyde production had

[56] George, *Minamata*, 17.
[57] George, *Minamata*, 18-20.
[58] George, *Minamata*, 20.
[59] Takashi Yorifuji, Toshihide Tsuda, and Masazumi Harada, "Minamata Disease: A Challenge for Democracy and Justice," *Late Lessons from Early Warnings: Science, Precaution, Innovation* II, no. 5 (2013): 96, https://www.eea.europa.eu/publications/late-lessons-2/late-lessons-chapters/late-lessons-ii-chapter-5/view.
[60] George, *Minamata*, 28.
[61] George, *Minamata*, 30.

begun in 1932, using a mercury catalyst – a process that marked the start of methylmercury wastewater discharge. Technical improvements helped the company's production grow from 5,000 metric tons in 1950, to 50,000 tons in 1961, 39% of the total produced in Japan.[62]

The first signs of what would become known as Minamata disease emerged in the early 1950s. Fishermen reported strange animal behaviour, and local cats began convulsing and dying in episodes dubbed 'dancing cat disease.'[63] On 1 May 1956, the Chisso factory hospital reported an 'epidemic of an unknown disease of the central nervous system,' after treating a young girl suffering from convulsions, loss of motor control, and speech impairment. This marked the first official acknowledgment of Minamata disease.[64]

As more residents fell ill with similar symptoms, fear of contagion led to social ostracism of the afflicted. This sense of stigma was compounded by the ambiguous terminology that permeated media and public discourse. The disease was variously labelled a 'strange disease,' 'dancing cat disease,' and even 'fashionable disease,' reflecting both scientific uncertainty and the public's confusion surrounding its unusual symptoms and mysterious origins.[65] This atmosphere of speculation was fuelled by sparse but sensational media coverage. In 1956, the *Nishinippon Shinbun* newspaper ran the headline 'Casualties and Insanity: A Strange Infectious Disease in Minamata.'[66]

Investigations into the cause of the disease were slow and fraught with obstruction. The Kumamoto University Research Group began probing the matter and, by November 1956, had concluded that the disease was not contagious and likely caused by a heavy metal – possibly introduced into the food chain through industrial wastewater contaminating fish.[67]

[62] George, *Minamata*, 33-4.
[63] Rebecca Kessler, "The Minamata Convention on Mercury: A First Step toward Protecting Future Generations," *Environmental Health Perspectives* 121, no. 10 (2013): A305, https://doi.org/10.1289/ehp.121-a304.
[64] George, *Minamata*, 5.
[65] George, *Minamata*, 46.
[66] Namiko Kunimoto, *The Stakes of Exposure: Anxious Bodies in Postwar Japanese Art* (University of Minnesota Press, 2017), 22.
[67] George, *Minamata*, 49.

They suspected seafood-borne heavy metal poisoning but were unable to reach definitive conclusions at the time. Despite a promising start, momentum slowed drastically from early 1957.

By 1958, suspicions intensified when Chisso relocated its wastewater discharge from the relatively enclosed Hyakken Harbour to the mouth of the Minamata River, allowing pollutants to spread more broadly into the Shiranui Sea.[68] This move suggested that Chisso officials already suspected a link between their wastewater and the disease and were attempting to obscure the evidence by diluting the contaminants.[69] In the same year, British neurologist Douglas McAlpine visited Minamata and observed symptoms consistent with methylmercury poisoning. [70] Though this was a vital clue, researchers continued to explore alternative explanations, often purposefully promoted by Chisso officials, delaying a definitive conclusion until 1959.

In July 1959, Hajime Hosokawa, director of the Chisso factory hospital, set up a laboratory within the facility's research division to conduct his own investigation into Minamata disease. As part of his experiment, he fed factory wastewater to cats and observed that Cat #400 developed symptoms consistent with Minamata disease, confirming a diagnosis of organic mercury poisoning. However, Chisso concealed these findings from investigators and ordered Hosokawa to stop his research.[71]

That same month, Japan's public broadcaster *Nippon Hōsō Kyōkai* (NHK) aired its first programme on Minamata – more than three years after the first cases were reported. Titled 'The True Face of Japan: Behind the Rare Disease,' the broadcast featured Chisso's President Kiichi Yoshioka, who refuted the mercury theory and promoted the company's planned installation of the Cyclator water purification system, which would be installed in

[68] Yorifuji, Tsuda and Harada, "Minamata Disease," 100.
[69] George, *Minamata*, 54-5.
[70] George, *Minamata*, 55.
[71] Yorifuji, Tsuda and Harada, "Minamata Disease," 101.

December 1959.[72] It is interesting to note that, today, this segment of the program – in which Yoshioka denies the company's responsibility for the disease – is excluded from the official NHK archives.

The Cyclator was highly praised and presented as a symbol of corporate responsibility. During the completion ceremony, Yoshioka drank a glass of water from the Cyclator in front of dignitaries, attempting to demonstrate its effectiveness.[73] In reality, however, the wastewater from the acetaldehyde plant was never processed through the Cyclator – and more critically, the device did not work. Chisso executives were fully aware of its failure but persisted in the deception, allowing mercury pollution to continue and new victims to emerge.[74]

In August 1959, a breakthrough came when researchers measured exceedingly high mercury levels in the sludge near Chisso's wastewater outlet in Minamata Bay.[75] Yet despite this compelling evidence, Chisso and its allies mounted fierce resistance. At a special prefectural assembly committee meeting, plant manager Eiichi Nishida dismissed the mercury theory as 'based on assumptions' and 'contradict[ing] the facts,' likening it to previously debunked theories involving elements such as manganese and selenium.[76]

Chisso's campaign to cast doubt was disturbingly effective. On August 5, 1959, the newspaper *Kumamoto Nichinichi Shinbun* editorialised that 'because it is a fact that the Minamata factory uses mercury as a catalyst, and that it is discharged in its effluent, we believe there is no doubt that the cause of Minamata disease is the factory's effluent.' Yet just two weeks later, the same paper reversed its stance, stating, 'at the present stage, it has not

[72] NHK, "The True Face of Japan: Behind the Rare Disease," Television Broadcast, *NHK Archives*, 1959, https://www2.nhk.or.jp/archives/movies/?id=D0009010071_00000. Full version available here: https://www.dailymotion.com/video/x2f8fr4
[73] George, *Minamata*, 115.
[74] George, *Minamata*, 115.
[75] Yorifuji, Tsuda and Harada, "Minamata Disease," 101.
[76] George, *Minamata*, 57.

been determined that the [Chisso] factory is the cause of Minamata disease.'[77] This dramatic shift reflected Chisso's influence in manipulating public perception.

In the same period, fishermen and local residents staged protests, demanding compensation. In response, Chisso offered scant 'sympathy money' – ex gratia payments – on the condition that recipients would make 'absolutely no further demands for compensation,' even if the factory was later proven responsible.[78] This coercive tactic, combined with widespread misinformation, stalled legal and political redress for years.

On November 12, 1959, the Ministry of Health and Welfare's Food Hygiene Investigation Committee submitted an interim report confirming that Minamata disease was caused by eating fish and shellfish from Minamata Bay. Based on research by the Minamata Food Poisoning Subcommittee - made up mostly of Kumamoto University faculty - the disease was identified as a type of food poisoning that damaged the central nervous system, with the primary cause being an organic mercury compound.[79]

However, the very next day, Minister of International Trade and Industry (MITI) Ikeda Hayato publicly stated, 'It is too early to conclude that the cause [of Minamata disease] is mercury.'[80] At a cabinet meeting, he criticised the Health Minister for jumping to conclusions and argued it was premature to link the disease to Chisso's mercury. The Ministry of Health and Welfare accepted the committee's findings without reporting them, and simultaneously disbanded the Minamata Food Poisoning Subcommittee, effectively halting any further investigation.[81] It would take another nine years before the government officially recognised methylmercury from Chisso's wastewater as the cause of Minamata disease – four months after Chisso had ceased using it in production.[82]

[77] George, *Minamata*, 58.
[78] George, *Minamata*, 73.
[79] George, *Minamata*, 61.
[80] George, *Minamata*, 62.
[81] George, *Minamata*, 62.
[82] Yorifuji, Tsuda and Harada, "Minamata Disease," 92.

This calculated deception revealed MITI's unwillingness to publicly acknowledge the link between mercury and Minamata disease, largely because of Chisso's central role in Japan's petrochemical development. At the time, MITI was focused on driving economic growth and strengthening industrial competitiveness. In the late 1950s, Chisso was a key player in the government's strategy to promote domestic petrochemical production, especially through its profitable acetaldehyde manufacturing process, which depended on mercury.[83] MITI feared that holding Chisso accountable or disrupting its operations could jeopardise this industrial push and increase reliance on imported chemicals. As a result, the government prioritised economic and industrial goals over public health – allowing Chisso to continue its mercury-based production, even as it poisoned local communities.

The media also played a damaging role in the early years of the Minamata disaster. National newspapers either ignored the issue altogether or confined coverage to regional editions, downplaying its broader significance. In an effort to maintain so-called 'balanced' reporting, they gave equal weight to conflicting explanations for the disease, which only deepened public confusion and undermined the emerging scientific consensus.[84] Adopting a detached, ostensibly neutral tone, the press inadvertently favoured Chisso by framing the crisis as unresolved and ambiguous. Although the media had the potential to challenge corporate power and hold authorities to account, this role went unrealised in the critical early stages of the disaster. As George notes, 'in this first round of responses to Minamata disease, the media failed to inform the nation adequately of this local incident or to recognise its national implications.'[85]

From 1959 onward, this atmosphere of ambiguity enabled the continuation of Chisso's mercury dumping, as residents were pacified with modest compensation sums and falsely

[83] George, *Minamata*, 63.
[84] George, *Minamata*, 70.
[85] George, *Minamata*, 117.

assured that the effluent was being properly treated – if Chisso was even to blame. During this period, cases of congenital Minamata disease emerged, but were frequently misdiagnosed as cerebral palsy, due to limited scientific understanding of mercury's teratogenic effects and the widespread belief that the issue had already been 'solved.'[86] It wasn't until the 1965 outbreak of Niigata Minamata disease and the rise of grassroots activism that national attention started to shift. Growing public frustration, alongside the government's eventually acknowledgement of Chisso's responsibility, led Minamata victims to file a lawsuit against the company in 1969. After a gruelling four-year trial, the Kumamoto District Court ruled in 1973 that Chisso bore full responsibility and had acted negligently, marking a landmark legal victory.[87] At least 2,265 people have been officially recognised as Minamata disease patients, receiving a new settlement of compensation.[88]

However, this turning point came only after a powerful narrative had been entrenched – one carefully crafted by Chisso and abetted by a reticent government and a compliant media. This dominant account framed the disease as an inexplicable medical anomaly that had been swiftly contained, rather than a preventable industrial catastrophe. It relied heavily on denial, deflection, and calculated uncertainty: Chisso insisted the cause of the disease was unknown or unrelated to its operations; government authorities echoed this ambiguity in public statements; and the media portrayed the situation as a matter of unresolved scientific debate. As historian Namiko Kunimoto observes, 'Japan's postwar desperation to rise from defeat to become an advanced, economically powerful country meant that companies like Chisso were heralded rather than monitored.'[89]

[86] Brett L. Walker, *The Toxic Archipelago: A History of Industrial Disease in Japan* (University Of Washington Press, 2011), 169.
[87] Noriyuki Hachiya, "The History and the Present of Minamata Disease: Entering the Second Half a Century," *Japan Medical Association Journal* 49, no. 3 (2006): 112–19, https://www.med.or.jp/english/activities/pdf/jmaj/v49no03.pdf#page=21.
[88] Ministry of the Environment, "Minamata Disease the History and Measures - Chapter 2 [MOE]," Ministry of the Environment Health & Chemicals, accessed May 29, 2025, https://www.env.go.jp/en/chemi/hs/minamata2002/ch2.html.
[89] Kunimoto, *The Stakes of Exposure,* 25.

2.3 The Seveso Disaster

The Seveso disaster, whilst predominantly understood as a singular chemical explosion, did not arise as a sudden, unforeseeable catastrophe. Rather, it was the culmination of decades of environmental degradation, systematic regulatory evasion, and corporate denial. Situated approximately 20 kilometres north of Milan, the town of Seveso lies in the Brianza region of Italy, an area historically defined by its strong Catholic tradition and artisanal furniture craftsmanship, with small, family-owned firms dominating the local economy.[90] In the post-war period, the region's excellent transport infrastructure and abundant water supply attracted chemical industries.[91] One of these was ICMESA (Industrie Chimiche Meda Società Azionaria), a chemical manufacturing plant that relocated from southern Italy to Meda in 1947, thanks to the efforts of Ugo Rezzonico, a Swiss entrepreneur described as a 'captain of industry from the golden book of capitalism.'[92] ICMESA's parentage was embedded in the global corporate hierarchy: the factory was owned by Givaudan, which was absorbed by the Swiss pharmaceutical giant Hoffmann-La Roche in 1963.

ICMESA had long been a source of local concern. As early as 1949, Seveso's City Council had raised alarms about odours emanating from the Certesa river, believed to be caused by the plant's discharges. Despite protests from the inhabitants of Seveso to escalate the issue to 'higher authorities,' no concrete action was taken.[93] In 1953, after sheep were found poisoned by the contaminated river water, the municipal veterinary service attempted to investigate but was met with what they described as 'reticence' from ICMESA.[94]

[90] Monica Seger, *Toxic Matters: Narrating Italy's Dioxin* (University of Virginia Press, 2022), 40.
[91] Laura Centemeri, "Medicina Democratica and the Seveso Disaster: Lights and Shadows of the Italian Movement for Environmental Health in the 70'S," *HAL Science*, 2009, 7, https://hal.science/hal-01070132v1.
[92] Laura Centemeri, *Ritorno a Seveso: Il Danno Ambientale, Il Suo Riconoscimento, La Sua Riparazione*, trans. my translation (Mondadori Bruno, 2006), 14.
[93] Centemeri, *Ritorno a Seveso*, 18.
[94] Centemeri, *Ritorno a Seveso*, 18.

A few months later, following yet another episode of animal deaths, the regional health officer subsequently classified the river water as harmful and argued there were 'all the elements' to declare the factory an 'unhealthy industry.'[95] Jorg Sambeth, a Roche employee, would later liken working conditions for employees in the ICMESA factory to those of 'working animals,' echoing comparisons to Minamata's poisoned labourers.[96] Yet Rezzonico and ICMESA deflected responsibility, blaming other firms upstream and insisting the public's concerns were merely 'an atmosphere of distrust and criticism' lacking in objectivity.[97]

Pollution persisted throughout the 1960s. Incidents of animal deaths recurred over the years – residents living near the ICMESA plant would arrive at the factory gates with farm animals that had died under mysterious circumstances. In response, the company paid them small sums of compensation money.[98] The Certesa River remained heavily polluted. In 1969, the Municipality of Meda received yet another report from the Hygiene and Prophylaxis Laboratory of the Province of Milan, which strongly criticised ICMESA's waste disposal practices, stating that they were carried out 'without any consideration of the harmful effects produced in the internal and external environment of the plants.'[99]

In early 1974, in a move disturbingly reminiscent of actions taken by Chisso officials in Minamata, ICMESA assured the Province of Milan and the Civil Engineering Department that it would build a new water purification plant. However, in December of the same year, a new analysis by the Province revealed:

> The wastewater that ICMESA releases into the Tarò [another name for the Certesa river] is chemically polluted and extremely toxic from the fish-toxicological point of view. Specific and efficient remediation work is therefore urgently needed. The company must also provide a more suitable arrangement for the sludge that, at present, can leak and pollute the underground water table.[100]

[95] Centemeri, *Ritorno a Seveso*, 19.
[96] *Gambit*, directed by Sabine Gisiger (Dschoint Ventschr Filmproduktion, 2005), 21:14, https://www.filmingo.ch/en/directors/563-sabine-gisiger.
[97] Centemeri, *Ritorno a Seveso*, 19.
[98] Thomas Whiteside, *The Pendulum and the Toxic Cloud: The Course of Dioxin Contamination* (Yale University Press, 1979), 49.
[99] Centemeri, *Ritorno a Seveso*, 20.
[100] Centemeri, *Ritorno a Seveso*, 20.

In 1975, following a further inspection, ICMESA's technical director, Herwig von Zwehl, was reported to the judiciary for failing to decontaminate the groundwater. However, he was acquitted due to 'insufficient evidence.'[101] Just over a month later, on 10 July 1976, a reactor producing 2,4,5-trichlorophenol – a synthetic compound used in pesticides and herbicides – would overheat and rupture, releasing a toxic cloud that contained 2,3,7,8-tetrachlorodibenzo-p-dioxin (commonly abbreviated to TCDD or dioxin), a toxic byproduct, considered among the most dangerous known to humans. The incident occurred when an exothermic reaction in the reactor was left unchecked, leading to an uncontrollable temperature rise.[102]

The release affected around 1,810 hectares across Seveso, Meda, Desio, and Cesano Maderno. The event, Laura Centemeri notes, 'passed by largely unnoticed, considered by inhabitants of Seveso and Meda as a typical nuisance (in a long series).'[103] Soon after, however, there was a drastic rise in animal mortality, with thousands of small livestock dying. Severe symptoms emerged – nausea, headaches, eye irritation, and cases of chloracne, a disfiguring skin condition, most apparent among children.[104] The first hospitalisations occurred within a week. Despite mounting evidence of a public health crisis, the response from ICMESA and its corporate parent was evasive. Seveso's mayor, Francesco Rocca, was told by ICMESA officials that the cloud contained 'possibly some material of an herbicidal nature.'[105] In reality, the company had confirmed the presence of dioxin the day after the accident but chose not to disclose it.

The parent company, Hoffmann-La Roche, was informed internally of the accident and the released substance on 12 July 1976, but did not make this information known either. Hoffmann-La Roche held its first crisis meeting on 15 July, where the deputy director

[101] Centemeri, *Ritorno a Seveso*, 21.
[102] Seger, *Toxic Matters*, 40.
[103] Centemeri, "Medicina Democratica," 7.
[104] Seger, *Toxic Matters,* 50.
[105] Whiteside, *Pendulum and the Toxic Cloud,* 34.

explicitly instructed: 'The matter is being kept within the inner circles of ICMESA; Givaudan and Roche are not to be mentioned... the fact that TCDD was formed is not mentioned. All clear?'[106] The silence was strategic and deliberate.

On 19 July, nine days after the explosion, inquiries by other discerning scientists compelled Givaudan to finally admit that the chemical fallout contained dioxin.[107] This revelation provoked outrage among residents and health officials, who had been left vulnerable due to the lack of timely information. Despite this admission, government responses continued to be hesitant and inconsistent. It wasn't until 24 July – two weeks after the disaster – that medical representatives from Hoffmann-La Roche formally alerted Vittorio Rivolta, head of the Lombardy regional health administration, that the contamination was serious enough to justify an evacuation.[108]

Evacuations began on July 26th, with authorities implementing a zoning system based on contamination levels. Zone A, the most heavily contaminated area, required the immediate evacuation of all 736 residents. Homes in this area were deemed uninhabitable and were later demolished. In Zone B, home to nearly 5,000 residents, evacuation was not mandated, but residents were advised against consuming locally grown food. Children and pregnant women were also relocated on a daily basis. In the last Zone R, residents were considered at lower risk but still monitored for long-term contamination effects.[109]

Although the full scale of the disaster had been made public, corporate efforts to control the narrative persisted. Adolf W. Jann, president of Hoffmann-La Roche, downplayed the concerns of Seveso residents during an appearance on Swiss television, stating: 'Italians, and especially the women, are always complaining, everybody knows that Italians are a

[106] *Gambit*, 31:15.
[107] Whiteside, *Pendulum and the Toxic Cloud,* 36.
[108] Whiteside, *Pendulum and the Toxic Cloud,* 36-7.
[109] Brenda Eskenazi et al., "The Seveso Accident: A Look at 40 years of Health Research and Beyond," *Environment International* 121, no. 1 (2018): 72, https://doi.org/10.1016/j.envint.2018.08.051.

highly emotional people … Capitalism means progress, and progress may occasionally bring some inconvenience.'[110] When asked about the children hospitalised with chloracne, Jann responded with a detached, technocratic tone: 'It is normal; children cry when they receive injections.' [111]

These efforts to downplay the disaster were bolstered by patronising public remarks, often exploiting the scientific uncertainty surrounding dioxin and the unknown extent of its effects on human health. Professor Giancarlo Trabucchi, a pharmacologist and senator, sought to diminish public concern by declaring, 'I will come and drink milk in your homes,' a gesture intended to reassure residents but one that ultimately trivialised their fears and suffering.[112]

The management of the crisis by regional authorities further compounded the catastrophe. Rather than adopting transparent governance procedures, Lombardy's officials tactically delineated contamination Zones A and B whilst deliberately stopping along the eastern boundary 'in miraculous fashion' to exclude the Milan-Como Superstrada highway from restrictions, preserving commercial and private traffic.[113] This move reflected a clear priority to minimise the perceived extent of contamination, effectively limiting the heavily affected zone to the smallest possible area. Journalist Thomas Whiteside noted in his observations: 'public-health data concerning dioxin contamination has been a subject for political compromise or manipulation from the start.'[114]

Furthermore, throughout the crisis, regional authorities invoked 'the usual arguments of authority, efficiency and paternalism' to justify their exclusion of citizens from meaningful participation in decision-making processes.[115] Instead, expert committees were convened at

[110] Paolo Strigini and Annamaria Torriani-Gorini, "Seveso: Zona Infestata," *Science for the People* 9, no. 6 (1977): 9, https://archive.scienceforthepeople.org/vol-9/v9n6/seveso-zona-infestata/.
[111] Strigini and Torriani-Gorini, "Seveso: Zona Infestata," 9.
[112] Strigini and Torriani-Gorini, "Seveso: Zona Infestata," 9.
[113] Whiteside, *Pendulum and the Toxic Cloud,* 69-70.
[114] Whiteside, *Pendulum and the Toxic Cloud,* 69.
[115] Centemeri, "Medicina Democratica," 8.

the behest of public authorities, tasked with delivering unanimous technical advice on health risks, decontamination, and socio-economic impacts.[116] Yet, as Laura Centemeri points out, as these technical-expert committees were producing decisions of a political nature, they 'were not just advisory committees but non-democratic decision-making bodies' – obscuring politics behind the veneer of expert consensus.[117]

The government's decision to permit therapeutic abortions – driven by fears of dioxin's potential teratogenic effects – introduced a new layer of confusion, competing narratives, and public anxiety. At the time, abortion was still illegal in Italy and remained one of the most contentious issues in national politics. The media's role in shaping public understanding was both complex and contradictory, especially in relation to the abortion debate. Italian newspapers often amplified fears with sensationalist coverage. Headlines such as 'More dioxin than in Vietnam' (*Panorama*), 'Chemical plague: the days of terror' (*Epoca*), 'In Seveso are monsters born?' (*Tempo*), and 'Worse than in Vietnam' (*Corriere della Sera*) contributed to a climate of panic and mistrust.[118]

At the same time, however, the invisible and imperceptible nature of dioxin made it particularly amenable to narratives of denial. Some media outlets, such as the Catholic newspaper *Avvenire*, downplayed the health risks, often aligning with efforts to discourage women from seeking abortions.[119] Religious organised played a prominent role in reinforcing this minimisation. The Catholic movement Comunione e Liberazione (Communion and Liberation), for instance, distributed flyers nationwide declaring: 'Life goes on. The multinational has destroyed, politics falsifying science has denied life, a united and free

[116] Centemeri, "Medicina Democratica," 8.
[117] Centemeri, "Medicina Democratica," 8.
[118] Alessandro Massone, "L'aborto E Il Disastro Di Seveso," The Submarine, 2022, https://thesubmarine.it/2022/08/01/laborto-e-il-disastro-di-seveso/?utm_.
[119] Ennio Elena, "Il Mio Film Su Seveso," *L'Unità*, March 28, 1989, https://archivio.unita.news/assets/main/1989/03/28/page_024.pdf.

people will return to life.'[120] This rhetoric strategically redirected attention away from the immediate health concerns of the victims, reframing the disaster in terms of ideological resilience and national rebirth.

The Vatican's intervention further highlighted the influence of hegemonic cultural institutions in shaping public discourse. Its official statement – 'even in difficult, very painful situations, the fundamental principle of absolute inviolability of every innocent human life, including the unborn, must remain' – placed moral absolutes above the health needs and autonomy of affected women, reinforcing a culture of silence and stigmatisation.[121]

Ultimately, 640 residents developed chloracne, over 500 were treated for skin rashes and liver disorders, and by 1978, more than 80,000 animals had died or been culled to prevent further contamination.[122] Long-term epidemiological studies later revealed elevated rates of lung cancer, diabetes, chronic respiratory illnesses, and disruption of gene expression in the exposed population.[123]

Hoffmann-La Roche consistently denied direct responsibility for the Seveso disaster, yet provided technical assistance during clean-up operations, repositioning from the 'polluter' to the 'rescuer.'[124] Compensation was discreetly settled through private, out-of-court agreements with the Italian State, regional authorities, municipalities, and individual victims.[125] This individualised and monetised approach transformed systemic corporate negligence into a series of isolated personal grievances, effectively neutralising collective resistance.

[120] Benedetta Frigerio, "Seveso, 40 Anni Fa La Nube Tossica Che Avvelenò Le Coscienze," La Nuova Bussola Quotidiana, July 10, 2016, https://lanuovabq.it/it/seveso-40-anni-fa-la-nube-tossica-che-avveleno-le-coscienze.
[121] Christina Lord, "Abortion Debate Heats up in Italy," The New York Times, August 9, 1976, https://www.nytimes.com/1976/08/09/archives/abortion-debate-heats-up-in-italy-chemical-peril-giving-new-impetus.html.
[122] Seger, *Toxic Matters,* 49.
[123] Seger, *Toxic Matters,* 49.
[124] Centemeri, "Medicina Democratica," 9.
[125] Centemeri, "Medicina Democratica," 9.

The disaster thus revealed more than industrial failure; it exposed how power manipulates narrative. Corporate and state actors, often in tacit alliance with religious and media institutions, fostered a dominant discourse of silence, denial, and ambiguity. By exploiting scientific uncertainty and cultural tropes that dismissed public emotion as irrational, they marginalised the voices of residents and excluded them from meaningful discourse. This orchestration allowed institutional actors to manage public perception, transforming a profound environmental and social crisis into a depoliticised 'state of exception' governed by expert control. Ultimately, as Centemeri notes, public authorities and corporate officials 'seemed mainly concerned with limiting the damage dioxin contamination could cause them, in terms of loss of legitimacy, than with fully understanding the gravity of the contamination effects.'[126]

2.4 Comparison of the Disasters

While it would be erroneous to conflate the Minamata and Seveso disasters – distinct as they were within their cultural, temporal, and geographical contexts and causes – they share a profound set of similarities as slow-acting, insidious industrial disasters that exposed communities to toxic contamination. Occurring in the decades following World War II, during an era of intense industrialisation and economic ambition, both incidents underscore the tensions between capitalist growth and public welfare. More pointedly, they reveal how hegemonic narratives were constructed to obscure corporate culpability, deny public intervention, and downplay the extent of human suffering. A comparative analysis not only brings these dynamics into sharper relief but also, as this thesis later explores, demonstrates the critical value of visual media in rendering visible what industrial modernity tried to keep hidden.

[126] Centemeri, "Medicina Democratica," 9.

A crucial aspect of both disasters was the role of denial and delay by state and corporate actors. In Minamata, the Chisso Corporation and the Japanese government resisted acknowledging responsibility, even as cases of congenital mercury poisoning became evident. Victims faced institutional barriers to recognition, with compensation and accountability arriving only after prolonged civic action. Similarly, in Seveso – though occurring over an accelerated timeline – the Italian authorities and the parent company of ICMESA, Hoffmann-La Roche, downplayed the severity of the dioxin leak, initially failing to communicate risks to residents and delaying evacuation notices.

Following the disasters, both communities experienced what sociologist William R. Freudenburg termed 'corrosive communities,' marked by lingering uncertainty, contested narratives, and psychological distress. [127] Unlike natural disasters, which often foster solidarity and collective recovery, these technological disasters generated prolonged social fragmentation. [128] Victims endured a 'second victimisation' as they struggled for justice against powerful perpetrators who denied responsibility. In both cases, the invisible, enduring nature of contamination and the lack of clear closure cultivated fear, distrust, and blame, turning communities into arenas of tension and division.

In Minamata, the corrosive effects were deeply entwined with Japan's cultural context. Traditional values such as *wa* (the principle of social harmony), deference to authority, and group conformity stifled open dissent.[129] Speaking out against the Chisso Corporation, the town's main economic engine, was seen as a disruption to communal stability. Victims were stigmatised and ostracised, often by their own neighbours, with the 'strange disease' generating fear of contagion and moral shame. The intertwining of economic dependence on

[127] Freudenburg, "Contamination, Corrosion and the Social Order," 24-25.
[128] Freudenburg, "Contamination, Corrosion and the Social Order," 24-25.
[129] Yida Zhai, "Values of Deference to Authority in Japan and China," *International Journal of Comparative Sociology* 58, no. 2 (February 2017): 122, https://doi.org/10.1177/0020715217694078.

Chisso and a hierarchical social structure made it very difficult for Minamata patients and supporters overcome the cultural imperative to maintain harmony and protect authority.

Similarly, Seveso's corrosive community was shaped not only by the confusion surrounding dioxin's effects but also by Italy's sociopolitical and cultural tensions. ICMESA workers and their families – often recent migrants from the South – suffered disproportionately high exposure due to their proximity to the factory, exacerbating their marginalisation within the community.[130] Moreover, the abortion debate highlighted a deeper cultural conflict between traditional Catholic values and emerging liberal ideologies, with the issue of toxic exposure revealing underlying societal fractures. Confronting these challenges became a core focus of activist efforts in both communities, as they worked to break through denial, gain recognition, and demand accountability. These movements sought not only to address the environmental and health consequences, but also to heal the social rifts caused by discrimination, stigma, and cultural pressures.

Furthermore, both disasters involved imperceptible toxins – methylmercury and dioxin – whose invisibility posed a unique challenge to their recognition. Unlike natural disasters, these technological catastrophes lacked the immediate spectacle of destruction. Victims often exhibited ambiguous, slowly developing symptoms, such as the disfiguring chloracne seen in Seveso's children or the neurological degeneration observed in Minamata patients. The subtlety of the poison lent itself easily to denial and deflection. The fact that both disasters unfolded in peripheral regions, far from the centres of power, further enabled central governments to downplay the crises without immediate political cost. In both cases, the media served as an arm of hegemonic power, either ignoring the crisis or shifting in approach between minimising, ambiguous, and sensational portrayals that distorted the reality of the events.

[130] Seger, *Toxic Matters*, 40.

Another defining characteristic shared by both the Minamata and Seveso disasters was their profound temporal and generational reach, which extended the consequences far beyond the initial moment of exposure. In Minamata, the impact of mercury poisoning was tragically evident not only in individuals who ate contaminated fish, but also in children born to mothers who were exposed during pregnancy. These children suffered from severe congenital disorders, underscoring the long-lasting biological imprint of the disaster. Similarly, in Seveso, the release of toxic dioxins led to immediate reproductive repercussions, including an increase in early miscarriages.[131] Over time, further studies revealed a disturbing pattern of long-term health effects, pointing to a lasting legacy of harm that could extend across generations.

In both Minamata and Seveso, women bore an unbalanced share of the suffering and responsibility. They were not only the mothers of children born with life-altering congenital conditions but also the primary caregivers, often navigating the physical, emotional, and social tolls of the disaster with limited institutional support. Their experiences reveal how environmental disasters can exacerbate existing gender inequalities, positioning women at the intersection of biological vulnerability and societal expectation.

While Minamata was more severe of the two disasters in scale and bodily toll, the narrative manipulation in both cases followed parallel trajectories: early denial, the stigmatisation of victims, scientific obfuscation, and conditional compensation schemes designed to preclude legal accountability. Amidst the fog of misinformation and denial, visual media emerged as a crucial counter-hegemonic force. The following section delineates why visual imagery became vital to challenge 'official' narratives, force institutional accountability, and restore the dignity of those rendered invisible by industrial and political systems.

[131] Seger, *Toxic Matters*, 41.

2.5 The Importance of Visual Media

A profound irony in the documentation of environmental disasters is that visual media – film, photography, and other image-based forms – have become essential tools for representing harms that are, by nature, invisible. In the cases of Minamata and Seveso, communities confronted toxic catastrophes whose effects could not be readily perceived by the human senses. This presented a dual challenge: for the afflicted to represent their suffering, and for broader society to comprehend it. As Ulrich Beck writes in *Risk Society*:

> [Toxins and pollutants] generally remain invisible, are based on causal interpretations, and thus initially only exist in terms of the (scientific or anti-scientific) knowledge about them. They can thus be changed, magnified, dramatized or minimized within knowledge, and to that extent they are particularly open to social definition and construction.[132]

While this made it easier for the culpable corporations to deny and downplay the industrial pollution, it simultaneously created an additional challenge for affected communities: how to represent a form of toxicity that could not be seen. Environmental theorists have concurred that visual media cannot depict toxicity directly. Instead, they trace its presence through the marks it leaves – on human bodies, altered landscapes, and in the rituals of mourning and resistance. In this sense, visibility becomes crucial not because it reveals the contaminant itself, but because it communicates its consequences, its aftermath, and its human cost. As film scholar Karl Schoonover observes, even when toxicity 'resists precise depiction, its vestiges continue to haunt the image.'[133]

It is important to acknowledge, however, beyond the realm of visual media, other artistic mediums have also played an important role in responding to these disasters. Songs, novels, and performance have also emerged as powerful expressions of grief, protest, and

[132] Beck, *Risk Society,* 23.
[133] Karl Schoonover, "Documentaries without Documents? Ecocinema and the Toxic," *NECSUS: European Journal of Media Studies* 2, no. 2 (2013): 506, https://doi.org/10.5117/necsus2013.2.scho.

collective memory. In the case of Minamata, a highly influential figure was Michiko Ishimure, a writer and activist deeply involved in the local movement.

Her 1969 book *Paradise in the Sea of Sorrow: Our Minamata Disease* gave voice to the afflicted and offered a profoundly lyrical, yet searing account of the human and ecological devastation. While such literary works are vital components of the cultural response and deserve consideration – which Ishimure has rightly received – they fall outside the scope of this thesis. The focus here remains on visual media due to their unique capacity to viscerally shape public perception. Despite its often-constructed nature, the visual medium tends to convey a sense of immediacy and truth. As Susan Sontag famously observed, 'photography furnishes evidence. Something we hear about, but doubt, seems proven when we're shown a photograph of it.'[134] This perceived authenticity lends a compelling authority.

While scientific data and personal testimonies are vital, it was frequently photographs, films, and documentaries that ignite wider public awareness and spur action. Legal scholar Jennifer Mnookin underscores this dynamic, noting that 'the photograph, in particular, has long been perceived to have a special power of persuasion, grounded both in the lifelike quality of its depictions and in its claim to mechanical objectivity.'[135]

Extending this idea to moving images, Karl Schoonover highlights the 'rich figurative potential' of cinema.[136] He argues that cinema can compensate for its inability to depict the toxic directly by leveraging its capacity to 'mix images… depict different temporalities simultaneously… draw illustrative comparisons… transition quickly across scales… [and] speak in different voices…'[137] These cinematic techniques, he suggests, can disrupt

[134] Susan Sontag, *On Photography* (Farrar, Straus and Giroux, 1977), 175.
[135] Jennifer L. Mnookin, "The Image of Truth: Photographic Evidence and the Power of Analogy, 10," *Yale Journal of Law & the Humanities* 10, no. 1 (1998): 1–2, https://digitalcommons.law.yale.edu/yjlh/vol10/iss1/1.
[136] Karl Schoonover, "Documentaries without Documents?" 493.
[137] Karl Schoonover, "Documentaries without Documents?" 494.

'conventional conceptions of the physical world,' opening space for new forms of understanding.[138]

This interpretive power becomes especially significant within Rob Nixon's conception of 'slow violence' – the gradual, often invisible forms of environmental damage that unfold over time, often 'patiently… while remaining outside our flickering attention spans – and outside the purview of a spectacle-driven corporate media.'[139] In such contexts, as seen in the cases of Minamata and Seveso, visual media emerged as a powerful means of making the imperceptible visible.

Through a kind of visual grammar, these images render hidden harm graspable. Photography, film, and grassroots media played a crucial role in disrupting silence, transforming private suffering into public knowledge. They invited outsiders to bear witness and empowered affected communities with tools for self-representation and resistance. As Sontag further observes, visual media often have a 'determining influence' in shaping 'what catastrophes and crises we pay attention to, what we care about, and ultimately what evaluations are attached to these conflicts.'[140] These representations will be explored in the following chapter.

[138] Karl Schoonover, "Documentaries without Documents?" 494.
[139] Nixon, *Slow Violence,* 45.
[140] Susan Sontag, *Regarding the Pain of Others* (Farrar, Straus and Giroux, 2003), 67.

CHAPTER 3: COUNTER-NARRATIVES THROUGH VISUAL MEDIA

Scholar Monica Segers, drawing on historian Marco Armiero, argues that 'environmental injustice, slow eco-corporeal violence, is enacted not only through physical events like toxic emissions but also through official narratives that serve to "eradicate any other possible alternative, that impose an official truth".'[141] This chapter builds on the previous discussion of how state and corporate actors – often aided by mainstream media – employed 'deceit and denial' politics to control public understanding of these disasters.[142] We now turn to the counter-narratives that directly challenge these dominant representations, exposing their minimising and distorting tactics.

Michael Bamberg and Molly Andrews' seminal work *Considering Counter Narratives: Narrating, Resisting, Making Sense* defines counter-narratives as 'the stories which people tell and live which offer resistance, either implicitly or explicitly, to dominant cultural narratives.'[143] Crucially, they emphasise that counter-narratives do not exist in isolation, but are inherently relational: 'counter-narratives only make sense in relation to something else, that which they are countering. The very name identifies it as a positional category, in tension with another category.'[144] This chapter argues that activists, environmentalists, photographers, and filmmakers – many of whom occupied multiple roles simultaneously – strategically used visual media as a powerful tool in constructing counter-narratives that reframed the events of Minamata and Seveso from a grassroots perspective.

[141] Seger, *Toxic Matters,* 18-19.
[142] Gerald Markowitz and David Rosner, *Deceit and Denial: The Deadly Politics of Industrial Pollution* (University of California Press, 2002).
[143] Bamberg and Andrews, *Considering Counter Narratives,* 1.
[144] Bamberg and Andrews, *Considering Counter Narratives,* x.

This section begins with a contextual layer indicating how key groups gathered, and the time period that primed their representations to proliferate. Then taking a thematic approach, this chapter examines how these visual counter-narratives addressed four key areas that were either erased or distorted in dominant discourse: (1) the human cost of industrial pollution, (2) the impact on women as caregivers and reproductive health, (3) exposing corporate accountability, and (4) making sense of radically disrupted environments. By contesting state and industry-driven representations, these communities shifted the power dynamic, bringing new, complex and multiaxial portrayals of these disasters into public consciousness.

3.1 Growing Environmental Consciousness and the Formation of Activist Groups

To invert the age-old proverb: there's no fire without smoke – and postwar industrial growth brought environmental damage that soon became impossible to ignore. By the late 1960s and 1970s, worsening air and water contamination, along with major ecological crises, sparked a new global environmental consciousness. Rachel Carson's groundbreaking 1962 book *Silent Spring*, which exposed the dangers of synthetic pesticides, is often credited with launching the modern environmental movement.[145] This awareness fuelled the rise of major international NGOs like Friends of the Earth (1969) and Greenpeace (1971). The anti-nuclear movement similarly emerged amid this budding environmental focus, as a powerful response to the ecological and health risks posed by nuclear energy. Activists linked radiation exposure, nuclear accidents, and waste disposal to broader concerns about environmental degradation and corporate irresponsibility. These developments situated the disasters of Minamata and Seveso within a broader, transnational backlash against industrial expansion,

[145] Rachel Carson, *Silent Spring* (Houghton Mifflin, 1962).

allowing activist groups and key individuals to visually represent these events to a newly sensitised global audience.

Following the 1959 settlement of 'sympathy money' and the installation of wastewater treatment facilities falsely believed to be effective, activist momentum in Minamata stalled. The period leading up to the late 1960s is often referred to as the 'years of silence' due to the limited public attention paid to the victims and their advocates.[146] Yet beneath this apparent lull, important social and infrastructural changes were unfolding in Japan that would reignite a new and decisive round of responses to Minamata disease. Japan's era of 'miracle growth' ushered in advancements in transportation and communication – most notably faster rail services and the widespread diffusion of television – bringing Minamata metaphorically and physically closer to the rest of the nation.

Meanwhile, a broader wave of leftist political opposition was surging across Japan, galvanised by protests against the renewal of the U.S.-Japan Security Treaty in 1960.[147] These mass demonstrations mobilised not only organised labour and socialists but also students, intellectuals, and ordinary citizens who had not previously been politically engaged. As historian Timothy George notes, this movement 'created new possibilities for mobilisation on other issues,' providing a template for renewed environmental and anti-industrial activism.[148]

And those possibilities soon came to fruition. Other prominent pollution cases, later known collectively as the 'Big Four,' emerged across Japan, sparking further action in Minamata. Particularly significant was the 1965 outbreak of a 'second Minamata disease' in Niigata Prefecture, where a factory using a similar acetaldehyde production process released methylmercury into nearby waters.[149] This parallel case reinvigorated support for the original Minamata patients, who were no longer isolated in their struggle. A more sympathetic

[146] George, *Minamata,* 125.
[147] George, *Minamata,* 173.
[148] George, *Minamata,* 173.
[149] Noriyuki Hachiya, "History and Present of Minamata Disease," 115.

national audience had begun to form, emboldening patients to campaign for a new, more equitable compensation settlement.

The founding of the *Shimin kaigi* (Citizens' Council for Minamata Disease Countermeasures) in 1968 marked a turning point.[150] This grassroots organisation orchestrated new patterns of civic action and significantly broadened public awareness. It became the principal support group for patients, collaborating with figures like filmmaker Noriaki Tsuchimoto and photographer W. Eugene Smith, whose work will be further examined in this chapter. Although the victims had continued to speak out – even during the so-called 'years of silence' – the emergence of powerful visual media in the late 1960s and 1970s helped their testimonies gain broader traction. These works were able to resonate deeply as they confronted an audience increasingly prepared to recognise and respond to environmental injustice. The convergence of growing public sympathy, heightened media attention, and the compelling impact of visual representation enabled Minamata's story to break through its local boundaries and extend globally.

Similarly, environmental consciousness began to take root in Italy in the late 1960s and 1970s, heavily influenced by broader social and political transformations, particularly the student protests of 1968.[151] During this period, the feminist movement also gained momentum. In 1970, *Rivolta Femminile* (Women's Revolt) was founded in Rome and Milan, becoming one of Italy's pioneering feminist organisations.[152] The passing of the first 'Fortuna' bill in 1973, which legalised therapeutic abortions under strict conditions,

[150] George, *Minamata*, 179.
[151] Stefania Barca, "Bread and Poison: Stories of Labor Environmentalism in Italy, 1968–1998," in *Dangerous Trade: Histories of Industrial Hazard across a Globalizing World*, ed. Christopher Sellers and Joseph Melling (Temple University Press, 2011), 126.
[152] Anna Travagliati, *Il Femminismo e la Parola Scritta. L'Esperienza Milanese: dalla Libreria delle Donne al Gruppo della Scrittura* (Argot Books, 2018), 10.

intensified efforts among feminist groups to push for more comprehensive reproductive rights.[153]

Furthermore, out of the postwar economic boom and the rapid industrialisation of the 1950s, a distinct form of environmental activism emerged in Italy. Environmental historian Stefania Barca identifies this as 'labor environmentalism,' a movement concerned with the intersection of environmental degradation, health, and industrial risk.[154] This initiative was predominantly organised by leftist parties and the labour movement, as well as the influence of student and grassroots political activism advocating for systemic societal change. In response to mounting industrial hazards, particularly from the petrochemical sector, workers' unions, scientists, and activists formed coalitions to confront the ecological and human costs of unchecked industrial expansion.

A seminal development in this trajectory was the founding of *Medicina Democratica* (Democratic Medicine) in 1972, a grassroots organisation dedicated to countering health misinformation and exposing harmful conditions in factories.[155] By emphasising worker participation in the production of scientific knowledge, *Medicina Democratica* sought to challenge the hierarchy of expert authority and refine the role of experiential knowledge in public health discourse. Central figures such as Giulio Maccacaro and environmentalist Larua Conti, both of whom will be discussed in more detail later in this chapter, played a pivotal role in this paradigm shift. Thus, when the Seveso disaster struck in 1976, it did so in a political and cultural environment further attuned to the dangers of industrial pollution. The visual and narrative framing of Seveso's aftermath was informed by this context, enabling activists, filmmakers, and photojournalists to leverage a growing international sensitivity to environmental crises.

[153] Amalia Signorelli, "Women in Italy in the 1970s," in *Speaking out and Silencing: Culture, Society and Politics in Italy in the 1970s*, ed. Anna Cento Bull and Adalgisa Giorgio (Routledge, 2017), 69.
[154] Stefania Barca, "Work, Bodies, Militancy," 116.
[155] Stefania Barca, "Work, Bodies, Militancy," 127.

In both the Minamata and Seveso cases, the creation and circulation of visual media proved critical to shaping public perception. Emerging within a rising tide of global environmental consciousness, they not only reflected the era's concerns but helped to define them. The following sections will explore these works in greater detail, examining how filmmakers, photographers, and activists constructed powerful visual testimonies that continue to shape how these events are remembered and understood.

3.2 The Human Cost of Industrial Pollution

As Rob Nixon writes in *Slow Violence*, 'a major challenge is representational: how to devise arresting stories, images and symbols adequate to the pervasive but elusive violence of delayed effects,' [156] In both Minamata and Seveso, photographers grappled with the difficulty of depicting the invisible toxins. To make the contamination visible, they focused on the bodies of the afflicted – using physical suffering to reveal the hidden damage. In Minamata, twisted limbs, blindness, and distorted movements became not just symptoms of illness, but also visual markers of industrial violence.

In 1960, Shisei Kuwabara became the first to capture images of Minamata disease patients with the explicit aim of documenting their suffering. A recent graduate of the Tokyo College of Photography, Kuwabara travelled to Minamata, where he was granted access to the Minamata disease ward of the local municipal hospital. Over the next 17 years until his retirement, Kuwabara continued to chronicle the unfolding tragedy.[157] Yet, he wrestled with the ethical implications of representation, acknowledging the complexities of turning real suffering into imagery: 'I cannot but feel perplexed as to from what angle the camera should photograph the fragments of such an abnormal reality…'[158] For Kuwabara, capturing

[156] Nixon, *Slow Violence*, 3.
[157] Miyo Inoue, "Exhibition, Document, Bodies: The (Re)Presentation of the Minamata Disease" (Dissertation, 2018), 18, https://escholarship.org/uc/item/2m404199.
[158] Inoue, "Exhibition, Document, Bodies," 19.

Minamata was not straightforward reportage – it was a political indictment. He saw the disease as a consequence of unregulated industrial growth, stating, 'the Minamata tragedy needs to be captured from a different dimension, as a political issue and social issue that closes in on the contradictions of capitalism. And for that, there is a need to denounce Minamata disease. What kind of image might that photograph of denunciation be?'[159]

His answer came in the form of an arresting photograph of Kumiko Matsunaga, a young girl who contracted Minamata disease at the age of six. She is described in Kuwabara's publications as 'A Living Doll.' In Kuwabara's photograph, Kumiko is lying in a hospital bed, her unfocused eyes gazing upward. Her hands, deformed by the disease, are clawlike – simultaneously fragile and contorted. The image is intimate yet unflinching, highlighting the tension between her vulnerability and the inescapable violence enacted upon her body by the disease.

Kuwabara displayed the photograph in his first solo exhibition, *Minamata-byō* (Minamata disease), held at the Fuji Photo Salon in Tokyo in September 1962, marking one of the first exhibitions confronting the public with the consequences of mercury poisoning.[160] Art historian Namiko Kunimoto has highlighted the significance of Kuwabara's choice to centre a young girl in his visual narrative – an approach that recurs across multiple representations discussed in this chapter. In Japan, she argues, 'the trope of the female body as a symbol of purity of the nation has a long history and gained greater popularity in the 1930s, when wartime propaganda began featuring women's bodies.'[161] Hence, by reframing the female body from something symbolically pure into a locus of toxic contamination, Kuwabara subverts established imagery. His photographs, Kunimoto contends, 'cast this episode as more than a local tragedy – it represented a national crisis.'[162] In displaying these

[159] Inoue, "Exhibition, Document, Bodies," 19.
[160] Inoue, "Exhibition, Document, Bodies," 20.
[161] Kunimoto, *The Stakes of Exposure,* 24.
[162] Kunimoto, *The Stakes of Exposure,* 25.

images publicly, Kuwabara's work challenged the prevailing silence surrounding Minamata disease. By encouraging the Japanese public to look directly at the physical toll of the mercury poisoning on a young girl's body, Kuwabara's photographs made the human cost of industrial pollution undeniable, setting the wheels in motion for the shift in public consciousness and knowledge of Minamata disease.

However, it was W. Eugene Smith and Aileen Smith who would bring Minamata to global attention. As a renowned photojournalist credited with pioneering the photographic essay, Eugene Smith, alongside Aileen, immersed themselves in the lives of the victims, living in Minamata from September 1971 to October 1974.[163] No image of Minamata disease has become as iconic as Smith's 'Tomoko and Mother in the Bath.' The photograph that 'has come to stand for Minamata disease' captures congenital patient Tomoko Kamimura cradled by her mother in a traditional Japanese bathtub.[164] Her paralysed, deformed body is dimly lit, striking viewers with a mix of dignity and beauty, suffering and tragedy. The mother's eyes glow with love, while Tomoko's helpless gaze upward underscores the inescapable consequences of the disease.

Published on June 2, 1972, in a photographic essay for *Life* magazine entitled 'Death Flow from a Pipe,' the image significantly raised the international profile of Minamata disease. The photograph was then published again in a photobook by the Smiths entitled *Minamata, Words and Photographs* in 1975, documenting several Minamata victims and their stories. Considered 'one of the most powerful images ever taken in the context of environmental activism and photojournalism,' it transformed Minamata from an abstract public health issue into an intimate human tragedy.[165] Cross-culturally, it has often been

[163] Aileen Mioko Smith, Documenting Minamata with W. Eugene Smith: An Interview with Kyoto Activist Aileen Mioko Smith, *Kyoto Journal*, May 3, 2021, https://kyotojournal.org/conversations/aileen-mioko-smith-pt1.
[164] George, *Minamata,* 214.
[165] Smith, Interview.

compared to Michelangelo's *Pietà* both in form and composition. In fact, Tomoko's mother, Yoshiko, often described her as 'our treasure child,' believing that Tomoko had absorbed the poison to spare her siblings from suffering.[166]

By giving a face and name to a victim, Smith's work provided undeniable visual evidence of suffering in Minamata, sparking outrage and pressure on both Chisso and the Japanese government to acknowledge their negligence. Not only did Tomoko's image represent the disaster, but her living body did as well. Emboldened by the successful circulation of her image, Minamata activists began taking patients like Tomoko to the Central Pollution Board during court proceedings, in order to be witnessed. Activists demanded that the board members 'look, touch, hold this child, and remember the experience as they evaluated human beings in dollars and cents.'[167]

Yet, 'Tomoko and Mother in the Bath' has not been without controversy. Ethical concerns persist over the decision to photograph a naked, disabled young girl, without her ability to verbally consent. Smith attempted to show a deep commitment to the patients, living among them and earning their trust before photographing them. Unlike most photojournalists, he refused to relinquish control over his negatives, painstakingly printing the images himself to ensure they appeared exactly as he intended.[168] Nonetheless, the issues surrounding this image raise critical questions: is such an image exploitative, or does it empower by making such suffering impossible to ignore? Minamata activist Kunio Endo captures the complexity of this dilemma:

> Tomoko's family were hurt by the decision to exhibit that photograph. When he took the photo, it was staged. It was not good for the family. But it is also true that, because of that photo, many people in the world learned about the disease. So, it was good and bad. If you tell stories to the world, someone has to get hurt. This is the meaning of

[166] George, *Minamata,* 214.
[167] W. Eugene Smith and Aileen Mioko Smith, *Minamata: Words and Photographs* (Holt, Rinehart, and Winston, 1975), 45.
[168] George, *Minamata*, 214.

> *densho* [to pass on to the next generation] – avoiding hard is like hiding. You can't avoid harm. If you do not tell the story, then people still get harmed.[169]

Beyond documentation, Eugene and Aileen Smith also became active participants in the Minamata struggle. Eugene's impact on the movement extended beyond his photography – while protesting in Tokyo, he was brutally beaten by Chisso guards. He later reflected:

> They had made a serious mistake. The beating of a respected American journalist loosened an avalanche of unfavourable publicity upon Chisso, and it gave increased respectability to Kawamoto [an activist campaigning for uncertified patients] and the Minamata cause: if Chisso were really like this, people said, maybe the patients were right.[170]

Furthermore, the Smiths' influence extended internationally. As a continued demonstration of the power of Smith's images, in December 1973, two private citizens in Canada fighting mercury pollution in the English-Wabigoon River reached out to the couple. Aileen later visited the area, witnessing the crisis first hand and helping to forge connections between the Cree Nation and Minamata victims. In 1975, Japanese researchers, including Dr. Harada, travelled to Cree reservations, strengthening transnational activism against mercury poisoning.[171]

Smith's haunting imagery, and his insistence on showing suffering as personal rather than statistical, directly challenged official narratives that sought to depersonalise and downplay the disaster. In contrast with Chisso's reluctance to acknowledge corporate culpability, 'Tomoko and Mother in the Bath' confronted viewers with an indisputable human cost to the industrial pollution. By embedding themselves in the community and refusing to reduce Minamata to an abstract health crisis, the Smiths helped shape a counter-narrative, one that continues to define how the disaster is remembered today. As Timothy George notes, both the Smiths and Kuwabara were integral to the Minamata struggle: 'almost from the start

[169] Interview with Kunio Endo, interview by the author, Minamata, Japan, March 27, 2024. Included in appendix of this thesis.
[170] George, *Minamata,* 233.
[171] Justin Jesty, "Image Pragmatics and Film as a Lived Practice in the Documentary Work of Hani Susumu and Tsuchimoto Noriaki," *Arts* 8, no. 2 (2019): 15, https://doi.org/10.3390/arts8020041.

of the Minamata disease incident, photographers have played an important part not only in telling the story but in actually affecting and participating in it.'[172]

In the aftermath of the Seveso disaster, as in the case of Minamata, visual media played a crucial role in challenging official narratives that sought to downplay the severity of the crisis. Like the fate of Tomoko, one particularly striking photograph came to symbolise the tragedy, breaking through an initial atmosphere of silence and denial following the release of dioxin from the ICMESA factory. Much like the Minamata victims, who were largely ignored until stark images of their suffering reached the public, photographers in Seveso focused on the most visible affected: the children afflicted with chloracne, a severe skin disease caused by dioxin exposure.

Photojournalist Mauro Galligani's image of a young girl, Stefania Senno, became emblematic of the disaster's human cost. Along with her sister Alice, Stefania had been playing in their garden just a few dozen metres from the factory when the toxic emissions engulfed them.[173] Their grandmother, who was also in the garden at the time, succumbed to the poisoning within months, with an autopsy later confirming dioxin in her organs.[174] Galligani's photograph captures Stefania in a moment of agony – her head thrown back in pain, her disfigured face laid bare for the world to see. In the days following the incident, when residents were left in the dark about the true nature of the disaster, it was this image that shattered complacency and forced public recognition of the crisis. Resident Sergio Pontiggia later recalled, 'No one told us anything. It was the photo of little Stefania, published in the newspapers, that triggered the panic.'[175]

[172] George, *Minamata,* 212.
[173] Stefania Senno, Mirror on the Wall, interview by Enzo Ferrara, *Una Città*, 2006, https://www.unacitta.it/it/intervista/1522-.
[174] Senno, interview.
[175] Stéphanie Marteau, "The Poisoned Summer That Shocked Seveso and Lombardy," *Le Monde Internazionale*, 2023, https://www.internazionale.it/magazine/stephanie-marteau/2023/10/05/l-estate-avvelenata-che-sconvolse-seveso-e-la-lombardia.

The widespread circulation of this photograph provided an unassailable visual counterpoint to corporate attempts to deny and minimise the risks posed by the chemical industry. While official reports sought to reassure the public that the cloud posed no immediate danger, Stefania's suffering – alongside that of others in the community – offered visible proof of the consequences. Galligani, like the photographers and activists of Minamata, was acutely aware of the ethical weight of his work. He reflected on 'the violence of a lens, even if it has a brain and a heart behind it, which must film a scene to inform.'[176] To Galligani, the act of documenting suffering was not neutral; it was a conscious intervention in the struggle for truth and accountability. Thus, these images had the power to make visible what authorities sought to obscure, forcing public institutions to acknowledge the disaster's long-term consequences.

Even decades later, the power of these images endures. Oriana Oliva, a representative of *Legambiente Lombardia* and a curator at the Bosco delle Querce – an oak forest located on the site of the former ICMESA factory – emphasised the continuing importance of visual media in preserving historical memory. She explained:

> Photographs are fundamental – very important, because, especially today, we live more surrounded by images than we did years ago. Not only children, but even adults have more difficulty following the verbal part [of the disaster story] and therefore the image has a much stronger power and helps people to identify with the period in which the accident occurred… [The images] make people understand what the state of the people was – because there are also some shots of people who are either crying or suffering – that make it clear even on an emotional level that it shook the community a lot. Even in the video where there are testimonies of people, I think that is the moment in which children realise that it is a real story, that it really happened.[177]

This reflection underscores how images continue to serve as a bridge between past and present, ensuring that the suffering of Seveso's victims is neither forgotten nor distorted over

[176] Mauro Galligani, Interview – Mauro Galligani: A Photographer through History, interview by Claudio Moschin, *Hestetika Art*, 2024, https://hestetika.art/intervista-mauro-galligani-un-fotografo-attraverso-la-storia/#google_vignette.
[177] Interview with Oriana Oliva, interview by the author, Seveso, Italy, December 5, 2024. Included in appendix of this thesis.

time. As with Minamata, where photojournalism helped galvanise environmental activism and legal action against corporate negligence, the visual record of the Seveso disaster remains a crucial tool for preserving historical truth, raising awareness, and advocating for justice.

Amid conflicting official statements that created uncertainty about the severity of the dioxin release, Uliano Lucas also emerged as a powerful voice from the bottom-up perspective. A Milanese photojournalist, Lucas was profoundly shaped by Italy's socio-political climate of the 1960s and 70s. Strongly allied with *Medicina Democratica* and renowned for his documentation of Italian factory workers, he captured the complexities of the country's industrial landscape, tracing its technological and organisational transformations[178] Throughout his career, Lucas dedicated himself to documenting social struggles, using photography as a tool to amplify marginalised voices and shed light on issues frequently ignored or misrepresented by mainstream media.

In response to the Seveso disaster, Uliano Lucas – much like Eugene Smith in Minamata – offered a powerful counter-narrative with his 1977 photobook *Seveso: Una Tragedia Italiana* (Seveso: An Italian Tragedy). Part of his broader 'Il Fatto, La Foto' (The Fact, The Photograph) series, the work reflected his commitment to socially engaged photojournalism, and his belief that 'behind the lens, there is always a point of view, a choice, a more or less clear interpretation of the world.'[179]

In this photobook, Lucas documented the full scope of the disaster's aftermath – from land contamination and cleanup efforts to chloracne cases, abortion pressures, and the anguish and protests of the affected community. Created in collaboration with writer Neva Agazzi Maffii, the book assembles a series of striking images that capture both the human suffering and environmental devastation caused by the catastrophe. Through his photographs – along

[178] Uliano Lucas, How Photography Has Changed the History of Recent Italy. Interview with Uliano Lucas, interview by Simone Lazzaroni, *Finestre Sull'Arte*, 2024, https://www.finestresullarte.info/en/interviews/how-photography-has-changed-the-history-of-recent-italy-interview-with-uliano-lucas.
[179] Lucas, interview.

with contributions from other photographers such as Mauro Galligani – Lucas challenges the dehumanising narratives promoted by corporate accounts and highlights the absence of meaningful community intervention from public authorities.

Lucas's objective was clear: to provide an alternative media account that foregrounded visual truth and the lived realities of the affected community. As he explained:

> The text by Neva Agazzi Maffii and the exceptional photographic documentation are condensed into a visual discourse that winds from the particular to the general and back to the particular, proposing the events of Seveso as emblematic of the more generalised Italian situation for everyone to reflect on and criticise. The series of volumes Il Fatto, La Foto aims to fill the void of information, especially visual, that characterises the 'biased' management of the mass media in Italy, and to bring back to its specific informative and documentary function the photographic discourse – today subordinated to the written fact or reduced to an external graphic fact. By recomposing a series of unpublished photographs or already published in isolation or badly used, the series reconstructs the visual documentation necessary for understanding the events that have marked and continue to mark Italian and international life.[180]

While mainstream media, and especially the scientific community, often portrayed Seveso residents as 'guinea pigs' in a scientific experiment, as scholar Laura Centemeri observed, with 'no dialogue between the guinea pig population and the scientists, with their white coats, who have transformed a territory into a laboratory,' Lucas's photobook offered a markedly different perspective.[181] *Seveso: Una Tragedia Italiana* refused to reduce the community to mere research subjects; instead, it restored their agency by capturing their pain, resilience, and everyday life. Through compelling imagery, the photobook brings their experiences into view, moving beyond the detached lens of scientific inquiry.

Thus, in Minamata and Seveso, photography and visual media were instrumental in revealing the human toll of industrial pollution – making the unseen visible and turning environmental disasters into deeply personal, urgent narratives.

[180] Uliano Lucas and Neva Agazzi Maffii, eds., *Seveso: Una Tragedia Italiana* (Il Fatto, La Foto, Biblioteca di Cronache Illustrate: Idea Editions, 1977).
[181] Francesca Faccini, "Seveso and the Catastrophes of the Past from Which We Do Not Want to Learn Anything," Il Tascabile, 2022, https://www.iltascabile.com/scienze/seveso-sloi-pfas/.

3.2 The Impact on Women as Caregivers and Reproductive Health

In both Minamata and Seveso, the industrial disasters had distinctly gendered dimensions, disproportionately impacting women and their reproductive health. These crises exemplify what Stacy Alaimo points to as the 'always interconnected actions of environmental systems, toxic substances, and biological bodies.'[182] In Minamata, methylmercury poisoning caused severe congenital disabilities, leaving mothers to navigate not only their children's suffering but also their newfound role as constant caregivers. In Seveso, fears of dioxin's similar teratogenic effects ignited a contentious debate over abortion, effectively stripping young women of agency by placing them at the centre of a moral and political controversy.

Yet, mainstream narratives obscured these realities. In Minamata, congenital patients were written off as suffering from cerebral palsy, whilst families were shunned in their communities for sheltering patients with the 'mysterious' disease. In Seveso, women's bodies became the political battleground for left- and right-wing groups to project their ideologies onto, rather than living humans forced into making a difficult decision. Visual counter-narratives challenged these omissions and misrepresentations, offering a more nuanced portrayal of the affected women and exposing the ways industrial negligence intersected with gendered dynamics.

In 1971, Japanese filmmaker Noriaki Tsuchimoto released *Minamata: Kanja-san to sono sekai* (Minamata: The Victims and Their World), a documentary built around intimate interviews with Minamata disease sufferers. Through personal testimonies, interwoven with montages of their homes, loved ones, and images of the deceased, Tsuchimoto exposes the

[182] Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Indiana University Press, 2010), 3.

profound intergenerational impact of mercury poisoning. His focus was clear: to centre the voices of the victims, with a particular determination to document children born with congenital Minamata disease, whose mothers had unknowingly consumed contaminated fish. As he wrote, 'I wanted to place more emphasis on the sick people dying, the disgraced victims of illness and, especially, the children born with abnormalities.'[183]

One particularly poignant interview features a mother caring for her 17-year-old daughter, Jitsuki Tanaka. The girl cannot eat or dress herself and relies on an enema administered by her mother for bowel movements. The sequence begins with a warm, familiar shot of a family living room before gradually closing in on the mother's anxious, guilt-ridden face. She gazes toward the open window, further emphasising the sense of entrapment, while contemplating her daughter's limited future: 'if only she could learn to take food in her hands and feed herself. Just thinking about her future, what will happen to her, I have so many worries.'[184] The camera then cuts to Jitsuki's deformed hands, twisting rhythmically, as her mother continues, 'if I was away for a few days, she wouldn't do anything... There are things I can't tell her father about.'[185] This testimony underscores the heavy burden placed on women in the role of constant caregivers, a role that Jitsuki's mother cannot share with her husband. The careful cinematography, with its tight framing and embodied perspective, forces viewers to confront the mother's isolating emotional toll, and the uncertain futures of the congenital victims once their parents have passed away.

In a later vignette, the voice of Tsuchimoto explains that Takae Sakamoto, another patient of Minamata disease, was forced to separate from her husband by his family, once it was discovered that she had the disease. When questioned whether she would marry again,

[183] Noriaki Tsuchimoto, "Statement on Minamata – the Victims and Their World," Sabzian, 2019, https://www.sabzian.be/text/statement-on-minamata-%E2%80%93-the-victims-and-their-world.
[184] *Minamata: Kanja-san to sono sekai*, directed by Noriaki Tsuchimoto (Higashi Productions, 1971), 48:28, https://archive.org/details/minamata.1971.dvdrip.x264-bipolar.
[185] *Minamata*, 49:46

she responds: 'no one would want me… All his family were against us; they tore us apart… When I think of having to be alone all my life, it's really…'[186] She is unable to complete the sentence. The camera lingers for an uncomfortably long time on Takae's face, as she turns away in shame and despair. This deeply emotional moment encapsulates the harsh reality faced by Minamata patients, who not only endured physical suffering but also widespread discrimination and stigma. The patriarchal values of Japanese society become particularly evident in Takae's sense of worthlessness, and also as she expresses relief that her daughter is a girl, believing she will care for her in old age. Asian film historian Justin Jesty highlights Tsuchimoto's ability to sensitively capture the victims' inner lives, while also allowing viewers to 'glimpse something of the scale of the damage, and its absolute irreversibility.'[187]

Tsuchimoto further exposes the plight of uncertified patients through the viewpoint of Kawamoto Teruo, an advocate for victims seeking official recognition. Kawamoto visits a remote village in Minamata to meet Isayama Takako, a congenital Minamata patient denied certification because she was born in 1961 – a year after the Cyclator wastewater filtration system led people to believe the crisis had ended. The camera lingers on her contorted limbs as she writhes on a futon, unable to speak, her suffering made palpable through the film's unflinching gaze.

When Kawamoto asks Isayama's mother if she will continue to apply for certification, she hesitates. He responds, 'if you don't demand to know, they won't tell you. Or is it that you're worried about what the neighbours may say?'[188] His words reach the core of both the institutional denial and erasure of victims, and the communal pressure to remain silent. The mother, cradling her child's limp body, confesses, 'demanding seems a bit forward to me.'[189] Her uncertainty reflects how deeply internalised the resignation and powerlessness of the

[186] *Minamata*, 53:11
[187] Jesty, "Image Pragmatics," 41.
[188] *Minamata*, 1:43:26
[189] *Minamata*, 1:43:37

victims had become. This strongly reflects environmental scholar Serenella Iovino's assertion that, in the aftermath of toxic disasters, 'women are affected twice: in their own bodies, and trans-or-inter-corporeally – in their babies' bodies.'[190]

Across the documentary, Tsuchimoto filmed 46 victims and their relatives, including 22 children poisoned in utero. Through visual testimony, he exposes the silent suffering erased by state and corporate narratives. By centring women and congenital patients, he reveals the far-reaching consequences of Minamata disease – not just as a medical or environmental disaster, but as a human tragedy intertwined with systemic discrimination and social abandonment. Against the silence imposed by Chisso and the Japanese government, Tsuchimoto compels viewers to confront the intimate and lasting devastation mercury poisoning has wrought on these communities, showing 'the ways the damage caused by mercury has infiltrated every connection and relationship.'[191]

Similarly, although women were central to the Seveso narrative, their representation was deeply politicised – and far from positive. Health officials and scientists warned of possible birth defects caused by teratogenic dioxin, prompting feminist groups to champion reproductive rights while anti-abortion advocates and the local Catholic community condemned the idea of abortion. As feminist scholar Barbara Mascherpa notes, interest groups with media influence 'tried to instrumentalise the Seveso case, transforming it into an opportune occasion to strike their adversaries… and, at the same time, reinforce their own ideology and power over public opinion.'[192]

Amid these competing narratives, women were placed at the centre of the Seveso discourse – but in ways that failed to reflect their lived experiences. In the context of Italy's

[190] Serenella Iovino, "Dioxin, Power, and Gendered Bodies in Laura Conti's Narratives on Seveso," in *International Perspectives in Feminist Ecocriticism*, ed. Greta Gaard, Simon Estok, and Serpil Oppermann (Routledge, 2013), 45.
[191] Jesty, "Image Pragmatics," 10.
[192] Barbara Mascherpa, *La Stampa Quotidiana E La Catastrophe Di Seveso: Verità E Falsità Dei Giornali Di Fronte al Problema "Aborto"* (Vita e Pensiero, 1990), 82-83.

broader abortion debate in the 1970s, the personal health choices of women in Seveso became heavily scrutinised. Rather than being seen as individuals facing fear and uncertainty, they were cast as antagonists in a cultural battle. As one account observed, 'the enemy is suddenly no longer those who created the catastrophe, but the women who want to abort for fear of the effects of dioxin.'[193]

Seeking to provide a more authentic representation of the struggles women faced in the wake of the disaster, Laura Conti wrote the novel *Una lepre con la faccia di bambina* (A Hare with the Face of a Child) in 1978. Conti, both an environmental activist and a regional councillor, defies simplistic categorisation within the state-versus-activist framework. A committed anti-fascist, she had participated in the youth resistance during World War II before becoming a physician, writer, and political advocate with a strong focus on social and environmental issues.[194] At the time of the Seveso disaster, she was a regional councillor for Lombardy elected for the Communist Party, and one of the avant-garde figures of the dawning Italian environmentalist movement. Conti was frustrated by the ineffective communication during the Seveso incident and wanted to use her scientific expertise and political influence to voice the ecological and social risks of dioxin and industrial pollution.[195]

Conti contested the dominant narrative that reduced pregnant women to 'only an incubator and not a person with health to safeguard, a brood mare who goes mad if the product of conception does not turn out well, but indifferent to her own risks.'[196] Whilst her novel did not receive much attention at the time of its publication, Gianni Serra's film adaptation of the same name in 1989, featuring well-known actors such as Franca Rame and Amanda Sandrelli, brought the narrative to 'a much larger audience, Italy's television viewing

[193] Faccini, "Seveso and Catastrophes of the Past"
[194] Seger, *Toxic Matters*, 63.
[195] Seger, *Toxic Matters*, 65.
[196] Jennifer Guerra, "Why You Should Know Laura Conti, the Woman Who Paved the Way for Abortion Rights," The Vision, 2021, https://thevision.com/cultura/laura-conti-aborto/.

public,' whilst leveraging the unique strengths of visual storytelling to further Conti's counter-narrative.[197]

The film follows two adolescents, Marco and Sara, as they attempt to make sense of their world in the chaotic aftermath of the dioxin disaster, surrounded by a disoriented community expelled from their homes. Conti's meticulous research into the psychological and social dynamics of Seveso allowed her to craft a deeply realistic portrayal of the human impact of the disaster, an authenticity Serra faithfully preserved in his screenplay. The latter part of the novel and film focuses on Sara's older sister Assuntina, a pregnant young woman abandoned by her boyfriend and caught between opposing forces pressuring her on whether to continue her pregnancy. Her experience mirrors those of many women in Seveso, trapped between ideological battles while navigating deeply personal fears.

One of the film's most harrowing scenes unfolds when Assuntina visits a doctor to seek advice. Instead of offering medical guidance, the doctor forces her to listen to the baby's heartbeat in an attempt to pressure her into keeping the pregnancy. Fleeing the office, she is immediately surrounded by reporters demanding to know her decision, turning what should be an intensely private moment into a public spectacle. By the film's end, Assuntina has travelled to southern Italy to stay with relatives, only to discover that she can no longer access a legal abortion. Desperate and out of options, she attempts to terminate the pregnancy herself with a knitting needle – and dies.

Assuntina's portrayal offers a powerful counter-narrative to the dominant discourse in Seveso. Rather than taking a definitive side, she is 'trapped in a cognitive dissonance that splits her between consciousness of her rights and her fear of exclusion.'[198] The townspeople are not sympathetically portrayed solely as victims of the disaster; instead, they are also shown as complicit in the marginalisation and demonisation of women. Through Assuntina,

[197] Seger, *Toxic Matters,* 93.
[198] Iovino, "Toxic Epiphanies," 47.

an alternative perspective emerges – one that highlights the specific challenges women faced in the aftermath of the crisis. Conti and Serra shift the focus of blame away from these women and instead direct it back toward the company and the community, exposing the deeper structures of injustice at play.

As Marco and Sara move through Sara's empty, contaminated house in Zone A, the weight of the situation becomes clear. The house, once a home, now stands as a haunting symbol of the crisis. Sara reflects on the isolation and fear that have shaped her family's response:

> He [a friend of Sara's] also said, 'if this story gets out, the factory will have to pay, and nobody wants to bother the factory.' And dad and mom are staying quiet too, because mom is afraid of scandals. So, if Assuntina doesn't die, she goes to jail and the factory doesn't have to pay anything. And if she dies, the factory doesn't pay anything anyway and we don't even have a picture of Assuntina. There'll be nothing left of Assuntina, it'll be as if she wasn't even born.[199]

Laura Conti, herself, understood the stance she was taking with this film. In a televised interview, she praised the film for being able to 'convey not only what had happened objectively, but an atmosphere, the subjective way in which things were experienced.'[200] She further expands on her feelings toward the situation in the disaster's aftermath:

> What I tried to transfer into the book, and I think also comes out in the film is an atmosphere of insincerity. Truths were told but they were not complete, they were partial or tendentious… I wondered how young people get into this lying world, which is the world built by adults, and unfortunately, we have seen in the years following Seveso that insincerity, especially with regard to environmental problems, is a common fact… rather than outright lies, there's tendentiousness, omissions, reticence.[201]

Serra's film was widely praised for its poignant style and its urgent political message. However, it also provoked significant controversy. While *Una Lepre Con La Faccia Di Bambina* was aired on Rai – Italy's national public broadcasting service – instead of an

[199] *Una lepre con la faccia di bambina,* directed by Gianni Serra (Rai 2, 1989), 2:37:12, https://www.youtube.com/watch?v=AzKF7uvBDtc&t=649s.
[200] Laura Conti, An Interview with Laura Conti, interview by Rai, *Rai 2*, 1989, https://www.youtube.com/watch?v=AzKF7uvBDtc&t=649s.
[201] Conti, interview.

alternative media outlet, it was clear that the film did not conform to the state-sanctioned narratives of the time. In 1988, Roberto Formigoni, then a member of parliament for the Christian Democrats, attempted to block the film's broadcast through a parliamentary question aimed at preventative censorship. After its airing, Formigoni launched a second parliamentary inquiry seeking reparations from Rai, arguing that the film had misrepresented the citizens affected by the Seveso disaster.[202]

Despite these efforts to suppress it, *Una lepre con la faccia di bambina* endures as a powerful visual counter-narrative that exposes the insincerity and omissions of official accounts. By shifting the focus back to the human impact of the disaster – particularly the struggles of women – Conti and Serra crafted a narrative that not only confronted the injustices of Seveso but also resonated with broader debates about industrial pollution, environmental responsibility, and women's rights in Italy.

3.4 Exposing Corporate Accountability

As counter-narratives to state and corporate discourse, the visual media in these representations naturally intended to highlight the accountability of those responsible. These narratives exposed and challenged dominant frameworks shaped by governments and corporations that denied responsibility and minimised harm. Grassroots efforts worked to reveal corporate negligence and malfeasance as root causes of the disaster.

In the case of Minamata, returning to Noriaki Tsuchimoto's *Minamata: Kanja-san to sono sekai*, the film not only provides affecting portrayals of Minamata disease patients, but also vividly depicts the fight against Chisso's role in causing the disease and the ongoing struggle for justice. The film highlights various protest strategies of the Citizens' Council for Minamata Disease Countermeasures, including a pivotal moment when victims and

[202] Roberto Formigoni, Intervista a Gianni Serra, Laura Conti, Formigoni, interview by Andrea Barbato, *Rai 3*, 1989, https://www.youtube.com/watch?v=xxlRzPvqTx4.

supporters attempt to confront Chisso's leadership by purchasing individual shares of the company to attend the annual shareholders' meeting. This tactic, devised by lawyer Goto Takanori, was not intended to secure financial compensation but was instead a powerful emotional gesture, bringing victims and perpetrators face-to-face.[203]

Patients and activists in white pilgrim clothing travelled from Minamata to Osaka for the meeting, where they found Chisso's executives seated behind a long table, President Yutaka Egashira at the centre. As he begins to speak, chaos erupts – breaking the film's otherwise contemplative tone and exposing the community's simmering rage. Voices of the executives are drowned out as patients and supporters storm the stage. Egashira is quickly surrounded, the camera's frantic motion mirroring the emotional intensity of the scene. Fumiyo Hamamoto, clutching her parents' memorial tablets, pleads desperately with Egashira, embodying the confrontation's raw power. As Timothy George observes, Tsuchimoto depicts the residents not solely as victims, but as agents of resistance:

> It was valuable psychologically, in giving them the chance to fight their own battles rather than leave them to the lawyers. The television coverage of the meeting and Tsuchimoto's film enabled them to appeal directly to the nation, linking their cause to broader political and cultural concerns such as the cost of high growth and the fate of those who were left behind.[204]

The one-share movement later inspired other activist groups, including the League for Peace in Vietnam, which used it during the 28 May 1971 Mitsubishi Heavy Industries shareholders' meeting to protest against arms production.[205]

The distribution of Tsuchimoto's films was a crucial element in their role as counter-narratives. Recognising that those most affected by mercury pollution often had the least access to information, Tsuchimoto completed the film in 1971 during the peak of the victims' movement in Japan. A grassroots network of citizens' groups, named the 'Associations to

[203] George, *Minamata,* 220.
[204] George, *Minamata,* 220.
[205] Lisa Berg and Lasse Berg, "Stockholders' Corral: One-Share Stockholders' Movement," *AMPO* 9-10 (1971): 54–55.

Indict [Those Responsible for Minamata Disease]' was blossoming throughout Japan. These associations supported the movement through events, newsletters, and fundraisers, including organising screenings of *Minamata: Kanja-san to sono sekai.*[206] In a landmark moment, the film was also screened at the 1972 United Nations Conference on the Human Environment – the first global summit of its kind – cementing its significance on the international stage.[207]

He also focused on bringing the film to domestic audiences in vulnerable, often overlooked communities. This included the isolated islands across the Shiranui Sea – Amakusa, Goshonoura, and Nagashima – accessible only by boat.[208] Local power structures encouraged silence and ignorance, fearing economic loss from market panic. Residents applying for official disease certification faced intimidation and ostracism. Tsuchimoto and his team toured these islands with the goal of screening the film in every coastal village. Over 76 locations, they reached approximately 8,500 people by 1977.[209] The film's sharp critique of Chisso and its activist-driven dissemination made it both a counter-narrative and a tool for social change.

In the aftermath of the Seveso disaster, grassroots and independent media also reclaimed narrative power to foreground corporate accountability. Frustrated by the hierarchies embedded in the production of scientific authority, Giulio Maccacaro, director of the Institute of Biometry and Medical Statistics at the University of Milan and founder of *Medicina Democratica*, criticised the role of science – particularly medical science – in perpetuating social exclusion and inequality. For him, 'science can be a multiplier factor of

[206] Justin Jesty, "Making Mercury Visible: The Minamata Documentaries of Tsuchimoto Noriaki," in *Mercury Pollution: A Transdisciplinary Treatment*, ed. Sharon L. Zuber and Michael C. Newman (CRC Press, 2016), 155.
[207] Jesty, "Making Mercury Visible," 155.
[208] Jesty, "Making Mercury Visible," 156.
[209] Jesty, "Making Mercury Visible," 157.

the establishment, or a liberation instrument. A certain form of science has always been an expression of political and economic power.'[210]

To interrogate this dynamic, Maccacaro and journalist Giovanni Cesareo launched *Sapere* (Knowing) in 1974.[211] This journal became a critical forum for science to be reported, but also contested – by scientists, activists, and citizens alike. When the Seveso disaster occurred, *Medicina Democratica* responded swiftly. The *Comitato Tecnico Scientifico Popolare* (Scientific Technical Popular Committee) was formed, bringing together students, workers, doctors, and trade unionists from the Seveso area to channel collective expertise on the health impacts of industrial pollution. With support from Maccacaro, *Sapere* published a special issue in 1977 dedicated to the disaster, explicitly framing it as a 'crime of peace' – a deliberate contradiction highlighting how corporations and states can perpetrate violence through negligence and profit-driven actions, even in times of peace.[212]

Sapere's intervention was not limited to text – it used visual media as a political weapon. As scientific journalist Enrica Battifoglia asserts, '*Sapere* was one of the first popular science magazines to make extensive use of illustrations. Its photographs were as spectacular and telling as its articles.'[213] The magazine's layout was designed not just to inform, but to indict. The opening double-page spread features a stark image of the ICMESA factory – immediately identifying the source of harm and confronting readers with the material reality of corporate violence. These visuals forced a recognition of accountability that traditional media coverage had obscured.

[210] Centemeri, "Medicina Democratica," 4.
[211] Centemeri, "Medicina Democratica," 5.
[212] Giulio A. Maccacaro, "Seveso, Un Crimine Di Pace," *Sapere* 79, no. 796 (1976): 4–9, https://nopedemontana.wordpress.com/wp-content/uploads/2013/04/sapere_seveso1.pdf
[213] Enrica Battifoglia, "Popularised Science Communication Modes in Italian Popular Science Magazines (1788-2002)," *Journal of Science Communication* 03, no. 01 (March 21, 2004): 12, https://doi.org/10.22323/2.03010201.

The magazine went further, presenting technical diagrams of the plant, chemical schematics of dioxin, protest imagery, event timelines, and contamination maps. These were not neutral visuals but intentional tools of demystification – designed to render the opaque systems of industrial production comprehensible to the public. By meticulously detailing ICMESA's production process, *Sapere* challenged the portrayal of the disaster as a random accident, exposing instead a pattern of avoidable decisions and systemic negligence. In doing so, it turned visual media into a means of civic empowerment and political resistance. This visual strategy was essential in shifting public understanding. As prominent American biologist Barry Commoner noted in a 1977 interview with *Corriere della Sera*:

> You see, now there is discussion about what happened at Seveso, and why. I read with interest the issue that *Sapere* dedicated to the subject. With all this, if we had taken steps in time to ask the real interested parties, the workers and their organizations, for a specific opinion, I am convinced that the disaster would have been prevented [...] We scientists too can act only if the initiative is given to those interested and not to the centers of power."[214]

Sapere demanded structural change. Its visual rhetoric exposed not only the incident itself but the system that enabled it. This approach contributed to tangible policy outcomes: in 1978, the Public Health Reform Bill was passed, requiring local health services to monitor both environmental and workplace conditions.[215] Stefania Barca indicates that this was a significant victory for *Medicina Democratica*, cementing the principle that workers' rights and public health are deeply interconnected.[216] By politicising visual media, they reframed the disaster from an 'accident' to evidence of systemic failure – making hidden harms visible, asserting that scientific and visual knowledge must serve democratic accountability rather than corporate power.

[214] Barry Commoner, Interview with Barry Commoner, interview by Corriere della Sera, *Corriere Della Serra*, February 27, 1977, https://www.antropocene.org/index.php?option=com_content&view=article&id=116:dossier-seveso&catid=12&Itemid=148.
[215] Stefania Barca, "Bread and Poison," 129.
[216] Stefania Barca, "Work, Bodies, Militancy," 129.

3.5 Environmental Disruption

Lastly, this section explores how activists and artists responded to environmental disruption, interpreting the damage to their territories and denouncing the corporate forces behind it. Their work challenged the decades of slow, attritional environmental damage, exposing not only the spread of the pollution but also its lasting effects on health, livelihood, and cultural memory. By documenting these harms, they reclaimed the narrative from state and corporate voices.

In 1975, four years after Minamata victims won a landmark legal case securing compensation, Noriaki Tsuchimoto released *Shiranuikai* (The Shiranui Sea), a follow-up film to his earlier documentary. Shifting focus from Minamata Bay to the wider Shiranui Sea, the film depicts a region still visually beautiful but deeply polluted. Through long, contemplative shots of fishing and village life, Tsuchimoto shows how closely local communities remain tied to the sea, despite its contamination. Subtle details – tainted fish, lingering illnesses, and a silence maintained to protect the fishing industry– reveal the disaster's enduring effects. Tsuchimoto offers a compassionate portrait of people living amid quiet devastation, unable to turn away from the sea that shapes their lives. As Justin Jesty notes, 'for people whose lives and communities have been shaped around fishing and who have enjoyed a daily bounty of fresh fish since childhood, it is simply impossible to give it up. It is the substance of their work, the fabric that ties them to the world.'[217]

The film also underscores the unfolding temporality of harm. Tsuchimoto revisits patients from earlier films, now teenagers, whose physical and cognitive impairments have become more apparent and painful. In one scene, a young woman with congenital Minamata

[217] Jesty, "Making Mercury Visible," 154.

disease speaks with Dr. Harada Masazumi, a medical researcher deeply sympathetic to the Minamata cause, about her desire for a brain operation to 'make her better.'[218]

Set against the backdrop of the Shiranui Sea, the camera keeps a respectful distance, showing only the young woman's back as she struggles to express her sense of isolation. She says that when she looks at things – like the sea or a flower – she cannot conjure anything in her mind, though she knows she should be able to. Here, the sea itself becomes a silent witness, a metaphor for both continuity and contamination. The beauty of the landscape belies the depth of the damage. The contrast between the serene surface and the hidden suffering beneath it captures the difficulty of living with environmental trauma – not only in the landscape, but also in the bodies of the victims, where the effects of pollution persist and are not always visible. This double invisibility highlights how pollution unfolds slowly over time, disrupting both natural ecosystems and human lives. Tsuchimoto's film acts as both a record and a critique, showing how corporate and state failures continue to define the everyday experiences of those bound to damaged environments.

A similar dynamic unfolds in the case of the Seveso disaster, where the impact extended beyond environmental and bodily harm to include a profound crisis of information. Conflicting narratives from corporate actors, scientists, and mainstream media framed dioxin's effects as uncertain or even negligible. As sociologists Javier Auyero and Debora Swistun note, this 'social production of toxic uncertainty' relies on misinformation, shifting responsibility, and wilful blindness to risk.[219] With no clear visual or sensory signs – since dioxin is invisible, odourless, and slow-acting – denial was a tempting option for many officials and frightened residents.

[218] *Shiranuikai*, directed by Noriaki Tsuchimoto (Seirinsha Productions, 1975), 1:24:57, https://www.bilibili.com/video/BV1i44y1q76M/

[219] Javier Auyero and Debora Swistun, "The Social Production of Toxic Uncertainty," *American Sociological Review* 73, no. 3 (2008): 357–79, https://doi.org/10.1177/000312240807300301.

In this climate of confusion and obfuscation, Gianni Serra's film *Una lepre con la faccia di bambina* did not conform to the dominant discourse, rather it confronted the viewer with the material and psychological reality of toxicity. It refutes the idea that dioxin's effects are speculative, portraying them instead as immediate, pervasive, and deeply embedded in the routines and imaginations of those living through the disaster. Serra's work dismantles the illusion of uncertainty; as Laura Conti distinctly remarked, the issue was never the dangerousness of dioxin, but rather 'the extent to which the environment, and the people of Seveso, had been contaminated.'[220] In so doing, the film reclaims the authority to narrate contamination from the institutions that sought to obscure it.

Much like the pervasive mercury contamination in Minamata, dioxin is imperceptible – necessitating an expanded narrative strategy. Serra addresses this challenge through a blend of realism and visual imagination, particularly by exploring the inner world of Marco, a young boy living within the contaminated zone. At times, the film transitions into brief, surreal fantasy sequences that visualise Marco's emotional and cognitive responses to the unfolding disaster. These scenes, devoid of dialogue or narration and underscored by a haunting instrumental score, cultivate a potent atmosphere of unease. In one such sequence, Marco approaches a traffic light on his bicycle. Abruptly, he envisions lifeless bodies scattered across the road, vegetables spilled from toppled bags, and his friend Sara cradling what appears to be Marco's own lifeless body. Just as suddenly, the vision dissipates, and the road ahead lies empty once more.

One way to challenge conventional thinking about environmental harm, as Rob Nixon suggests, is by shifting the parameters of 'what is commonly perceived as violence.'[221] Serra's use of abrupt, surreal imagery powerfully contributes to this reframing. By invoking a conventional, visceral image of violence – bodies strewn across a road – only to have it vanish

[220] Barca, "Work, Bodies, Militancy," 119.
[221] Nixon, *Slow Violence,* 144.

without consequence, he compels the viewer to re-evaluate their expectations of what violence looks like. The fleeting vision is shocking and legible in familiar cinematic terms, yet its sudden disappearance forces a reconsideration: the real violence lies not in spectacle, but in the slow, invisible processes of contamination. In doing so, Serra invites us to understand environmental harm with the same moral urgency and emotional weight typically reserved for overt, immediate acts of violence. In this way, *Una lepre con la faccia di bambina* resists the dominant Seveso discourse that framed dioxin as a speculative concern and instead insists on its tangible and psychological presence. In sum, Serra's film, like Tsuchimoto's work in Minamata, constitutes a powerful visual and emotional reckoning with environmental violence.

Overall, the industrial disasters of Minamata, Japan, and Seveso, Italy – though situated in distinct cultural and geographical contexts – offer compelling insight into the visual representation and cultural remembrance of environmental catastrophe. While the events were separated by time, space, and culture, both emerged from a shared root cause: preventable corporate negligence compounded by the deliberate obfuscation of responsibility by both state and corporate actors.

Over time, dominant discourses that minimised the scale and consequences of the events were actively contested by grassroots movements, as well as by filmmakers, photographers, and affected communities. Visual media became a crucial battleground in this struggle for memory. It was through visual counter-narratives that communities were able to reframe the disasters – not as isolated accidents, but as systemic failures deeply embedded in corporate greed and governmental complicity. These representations became powerful tools to challenge silence, denial, and distortion, asserting a more human and truthful retelling of events.

A comparative analysis of the visual representations from Minamata and Seveso reveals both shared strategies and culturally specific divergences in how these disasters were made visible and remembered. In both cases, the afflicted body became a central motif, serving as a living testament to environmental violence. Of particular symbolic power was the image of the child – a universal figure of innocence and vulnerability – used to starkly contrast the sanitised narratives propagated by corporate actors. The trope of the 'innocent child' emerges as a transnational motif in environmental visual culture, conveying a powerful emotional appeal that demands accountability and recognition.

Beyond the shared use of childhood imagery, another common strategy involved framing the human body as a 'living archive' of industrial violence. This was especially poignant in representations of women, whose physical suffering and social roles positioned them at the heart of the counter-narrative. These portrayals subverted traditional nationalist tropes – such as ideals of purity in Japan and notions of reproductive morality in Italy. Women, often doubly burdened as both victims and caregivers, experienced a renewal of agency through these visual interventions. For instance, in Minamata, Fumiyo Hamamoto's emotional confrontation with Chisso President Egashira was captured in a raw, defiant moment of resistance, while in Seveso, the character of Assuntina – despite dying at the end of the film – asserts a difficult but autonomous choice, rejecting the imposition of decisions by others.

Visual interventions in both contexts did more than simply document suffering; they directly contested state and corporate narratives that sought to downplay or deny responsibility. These counter-representations recast the disasters as moral and political failures, encouraging a more critical public engagement with issues of industrial accountability and environmental justice.

Yet, important cultural distinctions remain. In Minamata, visual narratives often engage with the Japanese concept of *wa* – social harmony – even as they depict communities disrupted by disaster. Though victims and their supporters were often criticised for endangering the stability of Minamata by challenging Chisso, these portrayals frequently emphasised community life, resilience, and a deep-rooted connection with the natural environment. Images of fisherfolk and families maintaining their daily routines function not only as documentation but as affirmations of human dignity and cultural continuity. While notions of shame, tightly bound to Japan's postwar identity, surface in these portrayals, they are counterbalanced by sympathetic representations that humanise the victims and challenge their social marginalisation.

In contrast, visual representations emerging from Seveso often carried a more overtly political tone. Works such as Uliano Lucas's photobook and Giulio Maccacaro's community-driven science magazine reflect a Western cultural milieu steeped in traditions of public protest, labour organising, and feminist critique. These representations tended to be plurivocal and explicitly confrontational, embedded within broader ideological struggles against institutional power and systemic injustice.

Both disasters involved toxins that were invisible to the naked eye, with effects that unfolded slowly and insidiously over time. Rising to Rob Nixon's 'representational challenge,' visual media played vital roles in rendering abstract or invisible dangers legible, emotionally resonant, and morally urgent.

In sum, the industrial disasters of Minamata and Seveso illuminate the crucial role of visual media in shaping how societies understand, remember, and respond to environmental catastrophe. These media are not merely reactive tools; they are proactive agents in shaping public discourse. The comparative lens of this study reveals both universal strategies and

culturally specific forms of resistance, offering a rich and nuanced understanding of how visual culture engages with environmental trauma across different sociopolitical landscapes.

CHAPTER 4: DISASTER LEGACY AND MEMORIALISATION

This final chapter examines the evolving legacies of Minamata and Seveso. As the immediacy of disaster fades, the question of how these events are remembered becomes increasingly complex. Animation and comics emerge as powerful tools for engaging new generations, transforming historical trauma into accessible and affective narratives that bridge temporal and cultural divides. At the same time, museums and memorial landscapes reveal how official and community-driven interpretations often stand in tension, offering divergent accounts of responsibility, justice, and healing. Through these visual forms, the chapter explores how environmental hazards are not simply commemorated but continuously reinterpreted, underscoring the ongoing struggle over how industrial disasters are narrated in the public sphere.

4.1 Memory and Reinterpretation: The Role of Animation

As time passes beyond the heightened response period of a disaster, the challenge of preserving collective memory grows. Traditional reportage methods often lose their emotional resonance, especially for younger generations who lack lived experience of such events. In this context, animation emerges as a powerful medium for memorialisation – capable of distilling complex and traumatic histories into accessible, empathetic narratives.

One compelling, cross-cultural example of this is *Inochi no chikyuu: dioxin no natsu* (Life on Earth - The Summer of Dioxin), a 2001 Japanese animated film that revisits Italy's Seveso disaster through the lens of Japanese environmental consciousness. Directed by Satoshi Dezaki, the film recounts the Seveso disaster from the perspective of a group of

children, as they attempt to uncover the truth behind the explosion and its consequences.[222] Their detective-like curiosity and determination frame the narrative, turning the story into a participatory journey of discovery, rather than a passive recollection.

What makes *Inochi no chikyuu: dioxin no natsu* particularly significant is its Japanese origin. Although it focuses on the Italian disaster, the film strongly echoes Japan's own environmental struggles, with clear – though not openly discussed – parallels to pollution tragedies such as Minamata. By choosing Seveso rather than Minamata as its subject, the filmmakers were able to explore themes of environmental injustice and corporate negligence in a way that avoided the national sensitivities and political taboos still surrounding Japan's own environmental catastrophes.

The timing of the film's release is also significant. In 2001, Japan was in a period of post-bubble economic reflection, with increasing emphasis on environmental responsibility. That same year, the Environment Agency was elevated to full ministry status, reflecting growing governmental concern about global ecological issues.[223] Clearly intended for dissemination in schools and public institutions, the film's production was supported by institutions such as the Japan Society for the Appreciation of Outstanding Films and was endorsed by the Governor of Tokyo, indicating official approval for its educational mission.

The film does not shy away from critique. In one key scene, the young protagonists confront representatives from the multinational company Hoffmann-La Roche, responsible for the Seveso disaster, publicly exposing their wrongdoing and shaming them in a press conference. This moment functions not only as the narrative climax but also as a moral instruction, underscoring the importance of activism and accountability. By empowering its youthful characters to demand justice, the film encourages viewers to see themselves as

[222] *Inochi no chikyuu: dioxin no natsu*, directed by Satoshi Dezaki (Magic Bus, 2001), https://archive.org/details/dioxin-no-natsu

[223] "Ministry of the Environment," Asia-Pacific Network for Global Change Research, accessed April 16, 2025, https://www.apn-gcr.org/organization/ministry-of-the-environment/.

agents of change, capable of standing up to authority in defence of their environment and health.

Ultimately, *Inochi no chikyuu: dioxin no natsu* exemplifies how animation can serve as a medium of memory and reinterpretation. Through a blend of imaginative storytelling and educational purpose, it transforms the Seveso disaster into a didactic narrative, bridging cultural and generational divides.

Furthermore, in the realm of environmental trauma and collective remembrance, comic books have increasingly emerged as powerful memory tools. Through their visual grammar of panels, sequences, and juxtaposition, they provide not only narratives but layered records of human experience. Literary scholar Hillary Chute, in her seminal work *Disaster Drawn*, argues that:

> The essential form of comics – its collection of frames – is relevant to its inclination to document. Documentary (as an adjective and a noun) is about the presentation of evidence. In its succession of replete frames, comics calls attention to itself, specifically, as evidence. Comics make a reader access the unfolding of evidence in the movement of its basic grammar, by aggregating and accumulating frames of information.[224]

This conceptualisation is particularly insightful when applied to two comics that commemorate the environmental disasters explored in this thesis: *The Minamata Story: An EcoTragedy* produced in 2021 by Sean Michael Wilson and Akiko Shimojima, and *Il Caso Seveso* (The Seveso Case) of 2016 by Francesca Corsi, Alessandra Repossi, and Sara Antonellini. Despite differences in narrative style and perspective, both works serve as acts of remembrance, documenting the disasters and rendering environmental suffering visible. Through both their form and content, these comics illustrate the power of the medium to preserve and transmit memory.

[224] Hillary L. Chute, *Disaster Drawn: Visual Witness, Comics, and Documentary Form* (Harvard University Press, 2016), 43.

The Minamata Story: An EcoTragedy uses the frame of a young narrator – Tomi, a half-British, half-Japanese adolescent researching the Minamata disaster – as a means to convey the transmission of historical trauma across generations. The narrative structure relies heavily on Tomi's conversations with his family members, particularly his mother and grandmother, revealing that they had once lived in Minamata but had concealed their past due to lingering shame and fears of discrimination.[225] By framing the disaster through Tomi's school report, the comic blends a personal journey with a public display, creating a layered narrative in which the collection of testimonies becomes an act of both remembrance and activism.

Crucially, the comic's sequential form – its panel-by-panel accumulation of interviews and evocative visuals – mirrors the process of gathering oral histories. Each frame operates as a piece of evidence in a visual archive, echoing Chute's assertion that comics 'aggregate and accumulate frames of information.' The result is a narrative that does not just recount the Minamata disaster but actively constructs memory through visual documentation. The comic's use of English, justified through Tomi's mixed heritage, further serves to globalise the issue, framing Minamata not solely as a Japanese tragedy but as a universal warning against corporate negligence and environmental injustice. The final pages deliver a clear 'call to action' directed at a young adult readership, asking them to challenge environmental wrongdoing.

While *The Minamata Story: An EcoTragedy* engages readers through the lens of postmemory and intergenerational testimony, *Il Caso Seveso* constructs its memorial through a more collective and historical perspective. Opening with a striking quotation from Aldo Cavallaro: 'If I hadn't noticed, would they have said so?' the comic sets an indicting tone

[225] Sean Michael Wilson and Akiko Shimojima, *The Minamata Story: An EcoTragedy* (Stone Bridge Press, Inc., 2021), 23.

from the outset.[226] This question, uttered by a provincial health official, immediately casts doubt on institutional transparency and initiates the comic's broader thematic inquiry into silence, denial, and suppressed history. Rather than following a central protagonist, *Il Caso Seveso* shifts between the voices of workers, local residents, and journalists, offering a multifaceted account of the disaster. This plurality of perspectives strengthens the comic's function as a memorial, reinforcing the idea that disaster memory is not singular but collective.

The comic also expands the temporal boundaries of the disaster. Rather than treating Seveso as a one-time event, it situates the catastrophe within a longer trajectory of industrial pollution, beginning with the underreported contamination of the 1950s and extending to fears over the future excavation of the toxic burial site, due to infrastructure projects like the 'Pedemontana Lombarda' highway. This chronological expansion makes the act of remembering inherently political: to forget, or to fail to investigate, would be to perpetuate the original harm. In this context, the comic's final image, the singular oak tree left standing within the newly planted, artificially created forest, becomes a potent visual symbol of memory.

Both works rely on the formal qualities of comics: the fragmentation and succession of frames, and the juxtaposition of image and text, to document disaster. These are not passive recollections but active reconstructions, demonstrating how the formal properties of comics – what Hillary Chute calls 'the unfolding of evidence' – can powerfully memorialise environmental disasters.

4.2 Present Day Narratives: The Divided Legacies of Minamata and Seveso

[226] Francesca Cosi, Alessandra Repossi, and Sara Antonellini, *Il Caso Seveso: Era Un Caldo Sabato Di Luglio* (Becco Giallo, 2016), 1.

The visual documentation of industrial disasters remains a powerful tool in shaping public memory, influencing how these tragedies are remembered, understood and narrated. In the cases of Minamata and Seveso, visual representations continue to play a crucial role in framing ongoing discussions surrounding environmental contamination and its consequences. This section explores how the affected populations in both locations have adapted to their changed environments, and how visual media has been employed to preserve the memory of these disasters. It ultimately argues that despite the presence of activist and environmental organisations, the narratives promoted by grassroots movements remain in conflict with those endorsed by state authorities. The legacy of Minamata and Seveso is not one of a singular, unified historical account, but rather a contested space in which competing perspectives persist.

Following the compensation agreements of 1973, efforts turned to environmental remediation in Minamata. Between 1977 and 1990, a large-scale project was undertaken to restore Minamata Bay, removing the mercury-contaminated sludge and reclaiming 58 hectares of land, now known as the 'Minamata Eco Park.'[227] However, beyond environmental recovery, the representation of Minamata disease remains deeply contested, particularly in the form of its two major museums: the Soshisha Museum and the Minamata Disease Municipal Museum. These institutions offer undeniably contrasting narratives, shaped by their historical and ideological affiliations.

The Soshisha Museum, established in 1988 by the non-governmental organisation Soshisha (meaning 'to care for each other'), functions as both an archival and activist space.[228] Originally founded in 1974 to support victims of Minamata disease, Soshisha preserves documents, facilitates community discussions, and serves as a focal point for patient

[227] Ministry of the Environment, "Minamata Disease the History and Measures - Chapter 4 [MOE]," Ministry of the Environment Health & Chemicals, 2019, https://www.env.go.jp/en/chemi/hs/minamata2002/ch4.html.
[228] Soshisha, "Minamata Disease Museum: Our Mission," Minamata Disease Museum, accessed March 20, 2025, https://www.minamatadiseasemuseum.net/.

advocacy. The museum's exhibits – handcrafted by staff members using victim testimonies, researcher input, and activist collaboration – emphasise themes of corporate crime, environmental destruction, and the personal toll of the disease. The museum's Japanese name, 'rekishi koshokan,' or 'a place of historical investigation,' reflects its commitment to critical inquiry rather than a passive display of history.[229]

The visual curation of the Soshisha museum places significant emphasis on the life and dignity of the Shiranui Sea fisherfolk, portraying their pre-disaster existence through fishing equipment, photographs, and even a traditional fishing boat. The museum also houses tangible evidence of the disaster, including a tube of mercury-laden sludge and the original experiment hut where Dr. Hosokawa discovered cats exhibiting symptoms of Minamata disease. The visual evidence presented here fosters direct engagement with the historical truth of Minamata disease, reinforcing the victims' perspectives as central to the narrative.

Figure 1: The Soshisha Museum in Minamata, Ruth Woodfield, 2024

Unlike conventional museums, Soshisha's exhibitions evolve based on visitor interactions, fostering a dynamic, participatory narrative. As Minamata activist Kunio Endo

[229] Inoue, "Exhibition, Document, Bodies," 102.

states, the museum 'portrays the meaning of the Minamata disease incident based on criticism of the Chisso corporation and the government as its defender and thus leads the audience's consciousness toward the victims considerably.'[230] This stands in contrast to the Minamata Disease Municipal Museum, established in 1993 under government oversight, which operates under an ostensibly 'non-political' guise.

The Minamata Disease Municipal Museum, established in 1993 by the city government, presents an alternative view. Located on a hill overlooking the reclaimed land of Minamata Bay, the museum operates under a guise of political neutrality, yet its positioning and curation implicitly align with the state's preferred interpretation of the disaster. The museum's modern design, professionally curated exhibits, and audiovisual presentations suggest an authoritative and definitive account of Minamata disease. As social anthropologist Kyonosuke Hirai asserts, 'the museum exhibition shall be considered as a political act. Through the communication of 'correct' knowledge, power is exercised.'[231]

Figure 2: The Minamata Disease Municipal Museum in Minamata, Ruth Woodfield, 2024

[230] Inoue, "Exhibition, Document, Bodies," 121.
[231] Inoue, "Exhibition, Document, Bodies," 140.

Minamata disease patient Sakamoto Shinobu highlights the divergent nature of these museums, stating:

> There are some things I don't like about the municipal museum… I don't like the intentions behind it. By intentions I mean Chisso's intentions, the municipal government's intentions, the citizens' intentions, the patients' intentions, they are all mixed behind the exhibition. Something good about the municipal museum is that they are showing the history of Minamata disease from the very beginning. But it misses the history of the fights. The Minamata disease patients fought with the government and the Chisso company to receive compensation. This history has been omitted in the exhibit in the museum. Soshisha and the municipal museum – they are in very different positions. Their ways of thinking are very different. Soshisha's facility is built clearly on the side of the patients and supporters… In my opinion, the real Minamata disease history is in that facility.[232]

However, she also acknowledges the necessity of engaging with both perspectives, remarking that 'you can't choose between the museums, you need to see both.'[233] Her statement underscores the essential complexity of Minamata's legacy – no singular exhibition can fully encapsulate the multifaceted experiences of those affected. The existence of two divergent museums stands as a testament to the unresolved tensions surrounding Minamata disease, where narratives remain divided between top-down reconciliation efforts and bottom-up demands for justice.

In the context of the Seveso disaster, the release of approximately 3,000 kilograms of dioxin left the community grappling with unprecedented environmental and public health concerns.[234] In the disaster's wake, authorities faced the daunting question of how to manage the toxic waste generated by the incident – not only the contaminated chemical byproducts but also the reactors, shuttered factories, surrounding buildings, and even the soil beneath them.

The initial remediation plan divided the affected area into subzones A1 to A5, outlining a strategy that included demolishing buildings, removing and surveying

[232] Interview with Shinobu Sakamoto, interview by the author, Minamata, Japan, March 25, 2024. Included in appendix of this thesis.
[233] Sakamoto, interview.
[234] Seger, *Toxic Matters,* 200.

contaminated topsoil, exploring disposal solutions, and ultimately constructing a large incinerator.[235] The incinerator was intended to burn heavily contaminated materials, including vegetation, building debris, and the carcasses of animals slaughtered due to contamination fears. However, the local community and authorities strongly opposed this plan. Many feared that the incinerator, rather than providing a solution, would transform Seveso into a long-term disposal site for hazardous waste, given its proposed service to all of Greater Milan.[236] Beyond financial concerns, residents viewed the project as an insult to their suffering, dreading prolonged exposure to further harmful emissions.

In response to public opposition, authorities abandoned the incinerator plan and instead devised an alternative approach – burying the toxic waste underground and transforming the site into an urban forest. Two large underground vats were constructed between 1981 and 1986 at the most contaminated sites.[237] As part of an experimental reforestation program, 43 hectares of land that had been stripped bare were gradually converted into what became known as the Bosco delle Querce (Oak Forest). While remediation continued, the park remained largely inaccessible, only opening to limited public use in 1996, and achieving full recognition as a 'natural' park in 2005.

Although the Bosco delle Querce was framed as a victory for environmental recovery, it was met with scepticism from local environmental activists, particularly from the local Legambiente Circle. Many saw it as a symbolic, rather than substantive, act of restitution, one that failed to adequately acknowledge the disaster's impact on the community. A major point of contention was the absence of historical markers or educational materials addressing the event. As a result, activists initiated the Percorso della Memoria (Memory Path) project, a

[235] Seger, *Toxic Matters,* 200.
[236] Rachele Ledda, "Women's Presence in Contemporary Italy's Environmental Movements, with a Case Study on the Mamme No Inceneritore," *Genre & Histoire* 22 (December 1, 2018): 24, https://doi.org/10.4000/genrehistoire.3837
[237] Seger, *Toxic Matters,* 200.

community-driven effort to integrate historical memory into the landscape through a series of informational panels.[238]

Creating the Percorso della Memoria involved a deeply participatory process. The panels were developed through extensive consultations with residents, guided by experts in community psychology.[239] The goal was to use storytelling as a therapeutic tool, fostering collective dialogue and healing. A ten-member committee representing diverse segments of Seveso's population collaborated with Legambiente activists, regional organisations, and local government bodies to determine the content.[240] Town hall meetings were facilitated to engage broader community input, ensuring that the resulting narratives reflected shared experiences. However, even within this inclusive effort, unresolved tensions persisted.

While the Percorso della Memoria sought to commemorate the disaster, it also reflected a deliberate mediation of conflicting perspectives. Activists initially envisioned the project as a 'symbolic funeral' – a space where community members could openly process their pain and resentment.[241] However, discussions revealed deep reluctance among residents to revisit certain aspects of the disaster, particularly issues related to health effects, abortion, and compensation. In response, the final version of the panels emphasised resilience, environmental recovery, and civic responsibility, steering away from more contentious subjects. The text inscribed on the panels underscored a spirit of communal perseverance:

> Today the forest is a symbolic place: it portrays the struggle against pollution, the toil to recover a seriously compromised environment, and the commitment to keep the memory of the disaster alive. It is a token of the ability to react with determination, solidarity, and a sense of responsibility to an environmental damage caused by superficiality and indifference.

[238] Laura Centemeri, "The Seveso Disaster Legacy," *Nature and History in Modern Italy, Ohio University Press & Swallow Press*, 2010, 251–73, https://hal.science/hal-01016045, 234.
[239] Seger, *Toxic Matters,* 201.
[240] Seger, *Toxic Matters,* 201.
[241] Seger, *Toxic Matters*, 50.

Figure 3: The Percorso della Memoria (Memory Path) in the Bosco delle Querce (Oak Forest), Seveso, Ruth Woodfield, 2024

As environmental sociologist Laura Centemeri observed in her understanding of Seveso's 'discrete memory' construction, this portrayal fit the disaster within a narrative of local identity that valorised environmental stewardship and social cohesion while sidestepping the painful divisions that lingered.[242] While the Percorso della Memoria served to affirm a shared commitment to ecological responsibility, it omitted critical discussions surrounding the full scope of the disaster's impact, particularly on public health and reproductive rights.

The struggle over Seveso's legacy remains ongoing, as new development projects continue to stir controversy. In the early 2000s, plans for the 'Pedemontana Lombarda' highway reignited tensions by necessitating the disturbance of contaminated soil within the Bosco delle Querce. Environmental groups strongly opposed the project, arguing that it contradicted the very principles of land restoration that had led to the park's creation. The 'No Pedemontana' movement emerged in response, advocating against the construction on the grounds that it would disrupt land that had been painstakingly rehabilitated after the

[242] Laura Centemeri, "Investigating the 'Discrete Memory' of the Seveso Disaster in Italy," *Hal.science*, 2014, 31, https://hal.science/hal-01016070.

disaster.[243] The planned excavation of dioxin-laden soil was seen as an 'unforgivable paradox' – an action that risked undoing decades of remediation efforts.[244]

Thus, present-day Seveso underscores the enduring contest between state-sanctioned operations and grassroots activism in the wake of industrial disasters. While official projects like the Bosco delle Querce and the Percorso della Memoria frame the event within a broader narrative of environmental resilience, they do so at the cost of silencing more contentious aspects of the disaster's aftermath. The decisions over what to include and what to exclude in collective memory reflect broader societal tensions: between commemoration and forgetting, between unity and unresolved grievances, and between state-driven remediation and community-driven advocacy.

The cases of Minamata and Seveso reveal a persistent divide in how disasters are commemorated. Ultimately, industrial disasters are never remembered in a singular way; instead, they give rise to competing narratives that reflect differing perspectives on responsibility, impact, and resolution. In both Minamata and Seveso, official efforts to frame these disasters as closed chapters clash with activist-driven accounts that emphasise their lasting consequences. The presence of multiple museums in Minamata underscores this ongoing contestation of memory, just as Seveso's Percorso della Memoria attempts to shape a collective understanding of the event while omitting certain perspectives. The persistence of groups like 'No Pedemontana' further illustrates how the state continues to disregard activist concerns. These cases reveal that historical memory is never static; instead, it remains a site of struggle where differing interpretations of past disasters compete for legitimacy.

[243] No Pedemontana Project, "No Pedemontana," WordPress, July 10, 2024, https://nopedemontana.wordpress.com/.
[244] No Pedemontana Project, "No Pedemontana"

CONCLUSION

The fully enlightened earth radiates disaster triumphant.'[245]

– Max Horkheimer and Theodor Adorno

The disasters of Minamata and Seveso did not erupt with thunderous force or visual spectacle, nor did they elicit immediate humanitarian responses from the international community. Instead, they unfolded slowly, invisibly, yet with persistence. The toxic agents – methylmercury in Minamata and dioxin in Seveso – suffused human bodies and natural ecosystems, causing generational harm while largely eluding public recognition in the early stages. As the Emergency Events Database reports, 1,321 natural and technological disasters have occurred globally since this thesis was first conceptualised.[246] In such a context, where the frequency and scale of disasters are increasing, it becomes ever more urgent to understand not only the structural causes of such crises, but the interpretative frameworks through which they are made meaningful. Disasters are not only physical or ecological events; they are also political and cultural phenomena, shaped by conflicts over truth, responsibility, and memory. Understanding the power dynamics, grassroots resistance, and representational struggles that can emerge in their wake is essential to grasping their full impact.

This thesis has traced the complex interplay between industrial disaster, memory, and visual media through a comparative analysis of Minamata and Seveso. Both disasters exposed the consequences of unregulated industrial growth, while simultaneously revealing the powerful capacity of visual media to challenge hegemonic narratives. By juxtaposing top-down representations – promoted by corporations, governments, and mainstream media –

[245] Theodor W Adorno and Max Horkheimer, *Dialectic of Enlightenment* (Verso, 1944), 1.
[246] The Emergency Events Database EM-DAT, "Public EM-DAT Data," EM-DAT Documentation, accessed May 30, 2025, https://public.emdat.be/.

with counter-narratives produced by affected communities, activists, artists, and independent journalists, this study has shown how visual culture can operate as both a battleground and a bridge in the struggle over memory, accountability, and justice.

A central theme running through this thesis is the problem – and potential – of visibility. Industrial disasters such as Minamata and Seveso present a unique challenge in that their violence is not always immediate or spectacular. As Rob Nixon asserts in *Slow Violence*, 'to intervene representationally entails devising iconic symbols that embody amorphous calamities as well as narrative forms that infuse those symbols with dramatic urgency.'[247] In response to this challenge, a set of recurring visual tropes and iconic symbols emerged in both contexts. Most notably, the figure of the innocent child became a powerful vehicle for visualising abstract and otherwise invisible harms. The child's body served as a poignant symbol of lost purity and violated innocence, transforming chemical exposure into a deeply human tragedy. Furthermore, multifaceted portrayals of the broader community – fishermen, factory workers, mothers, protestors – reinforced the collective dimension of suffering and resistance. Ultimately, visual media became a critical tool in translating imperceptible harm into shared understanding, catalysing public and political engagement.

The interventions of figures such as Shisei Kuwabara, W. Eugene Smith, Mauro Galligani, Uliano Lucas, Noriaki Tsuchimoto, Laura Conti, Gianni Serra, and Giulio Maccacaro were instrumental in reframing these disasters. Their works shifted the framing of Minamata and Seveso from isolated accidents to symptoms of broader systemic failure – critiques of industrial modernity and ecological injustice. In doing so, they offered, as anthropologist Michael Fischer suggests, 'conditions of possibility for forms of subjectivity' by foregrounding alternative narratives and amplifying the voices and experiences of the marginalised, thereby 'reshaping the public sphere by changing power relations.'[248]

[247] Rob Nixon, *Slow Violence and the Environmentalism of the Poor*, 10.
[248] Michael Fischer, *Anthropological Futures* (Duke University Press, 2009), 42-37.

These shifts in public consciousness were not without material consequence. The legacies of Minamata and Seveso extend beyond cultural memory and into the realm of law and institutional reform. In the case of Minamata, decades of activism and international attention culminated in the *Minamata Convention on Mercury*, adopted in 2013 under the auspices of the United Nations Environment Programme.[249] This international treaty, signed by over 120 countries, seeks to reduce mercury emissions and phase out its use in key industries, representing a belated but significant recognition of the disaster's enduring impact.

Likewise, the Seveso disaster triggered significant reforms in European industrial safety regulation. The *Seveso Directive*, first enacted in 1982 and updated in 1996 and 2012, imposes strict controls on the handling of dangerous substances at industrial plants in the European Union.[250] Thus, both disasters catalysed legislative responses that transcended national borders, translating local suffering into global frameworks of accountability and prevention. These responses demonstrate how disasters, when brought to public attention and politicised, can eventually lead to systemic change – often following extended efforts and sustained public pressure.

This research is acutely relevant in our present moment, as environmental degradation, climate change, and industrial risk intensify globally. In an age of constant visual saturation and digital media proliferation, the question of how disaster is represented – what is seen, what is concealed, and who is heard – remains of critical importance. The histories of Minamata and Seveso offer a vital lens through which to examine how images function in the construction of memory, the negotiation of blame, and the mobilisation of action. These cases highlight the enduring need for critical media literacy, particularly in recognising the ways in which visual culture can both reinforce and resist hegemonic power.

[249] Kessler, "Minamata Convention on Mercury," A305.
[250] Bruno Fabiano and Genserik Reniers, "Editorial: The Seveso Disaster and Its 40-Year Legacy to Process Safety," *Journal of Loss Prevention in the Process Industries* 49, no. 10 (September 2017): 2, https://doi.org/10.1016/j.jlp.2017.07.006.

Future research could build on this work by examining how current digital technologies, including social media and mobile journalism, are reshaping the landscape of disaster representation. How do these platforms influence the spread of visual counter-narratives today? What new ethical dilemmas and possibilities arise in their wake? Comparative studies might also explore industrial disasters in the Global South, where differing cultural, technological, and political conditions may produce distinct forms of visual activism and resistance.

In sum, this thesis affirms that disasters function as intricate, multifaceted cultural narratives, with their meanings continuously shaped through interpretation and contestation. Within this process, visual representation plays a crucial role – not only as a way to bear witness, but also as a potent tool for revealing injustice, dignifying suffering, and inspiring collective action. Consequently, these representations act as forms of public history, capable of bringing hidden disasters into view and embedding them within collective memory.

Whilst the stockholders' meeting confrontation marks the emotional and narrative climax of Tsuchimoto's *Minamata: Kanja-san to sono sekai*, the film does not end there. It returns to Minamata for a quiet, reflective closing sequence: fishing boats set out to sea as life continues. This closing image reaffirms the resilience of the residents and their deep-rooted connection to place, signalling both endurance and defiance. Tsuchimoto's return to Minamata is emblematic of the wider ethos embraced by the grassroots activists, filmmakers and photographers explored throughout this study – the desire, in his words, 'to set out for Minamata in order to get the reverse view, to look out from the small hamlets, at the city, at the prefecture, at the state.'[251]

[251] Aaron Gerow, "Tsuchimoto Noriaki and Environment in Documentary Film," in *Of Sea and Soil: The Cinema of Tsuchimoto Noriaki and Ogawa Shinsuke*, ed. Stoffel Debuysere and Elias Grootaers (Sabzian, 2019), 93.

APPENDIX: INTERVIEW TRANSCRIPTS

Interview 1: Minamata Disease Patient, Shinobu Sakamoto, 26 March 2024

Ruth: How did you get involved with Soshisha and become a storyteller?

Sakamoto: Various people came to Soshisha, and then they made another facility called Seikatsu Gako (Life School). Various people came to this facility where they learn things – I was among the second group of people who came to this facility. I was not an official storyteller, but various people would come to me to listen. I was already famous when I was a high school student. I publicly began to speak when I was about 30, and I have been doing storytelling for more than 30 years. I would not use the term 'official storyteller' – this is a phrase used by the city government. Before the 'official' storytelling began, I was already doing it. I have a long history as a storyteller.

Ruth: Can you tell me about your experience being photographed as a person with Minamata disease?

Sakamoto: Sometimes I did not want to be photographed. There were people who weren't good, sometimes I felt like I didn't want my photograph taken.

Ruth: Do you feel that the experience was different, working with international/foreign photographers and media people versus Japanese photographers and media? Can you tell me about your experience being photographed by Aileen Smith and W. Eugene Smith?

Sakamoto: As for the difference of nationalities, I didn't care. What the kind of person was like was more important. I liked a photographer named Shiota (Takeshi Shiota). I liked Eugene and Aileen. There aren't specific people I disliked – only the ones who took my picture without my permission.

Eugene Smith, Aileen and Shiota came to Minamata and lived here for a while. They had a very good communication with me. After that they took the pictures. But there are some photographers who just came here and suddenly took pictures without communicating or connecting with anyone.

Ruth: Could you tell me a bit about your mother (Sakamoto Fuji) and her role as an activist in the lawsuit against Chisso? What was it like to watch her fight for justice?

Sakamoto: Honestly speaking, I sometimes felt worried and didn't like her doing such things. Sometimes I was worried that I didn't like it. Apart from the activity/activism, I felt like it was my mother's responsibility for my disease. She ate fish so I became a Minamata disease patient. I hated that very much. As I grew up, I gradually understood my mother, how hard her life was, and the meaning of her activities/activism. I had an elder sister who was also a Minamata disease patient. My sister's symptoms were very severe, and she died very early.

But my mother nurtured me and brought me up in such hardship, so I am very grateful to her now.

Ruth: Can you tell me about your experience growing up? Did you face a lot of discrimination for having Minamata disease?

Sakamoto: When I was a child, I didn't feel a lot of discrimination. Before primary school, I rarely left home, so I didn't have the chance to experience discrimination. When I began to go to elementary school, the discriminatory behaviour began. I felt discriminated against by teachers. Some teachers wouldn't teach us (Minamata patients) appropriately because they said, 'you are not worth teaching.' There are other things I didn't experience, but people talked about such discrimination, including my mother. Because I was a child I didn't understand it in detail. There are various people in Minamata – some supported us and some were against us.

Ruth: Have you ever thought about leaving Minamata? How do you feel about the fact that the Chisso company is still here?

Sakamoto: I love Minamata. I love Minamata a lot, very much. I've never thought about leaving. (About being angry because Chisso is still in Minamata) - I thought so. I sometimes thought so. But this is about the present Chisso company. Now there is no one who worked when the Chisso company created the pollution. I don't think they are in Minamata now.

Ruth: What kinds of things are useful to teach people about Minamata?

Sakamoto: The most important subject I want to have foreign people to see is the existence of real Minamata disease people who have very heavy symptoms. They are the most effective subjects to be seen. But I have to add something - there are various symptoms of Minamata disease patients. There are many cases in which you can't see the symptoms from the outlook of people. Some people look very healthy but actually have very heavy symptoms within them.

Ruth: Do you like the way that the Minamata disease has been commemorated by local museums? How do you compare them?

Sakamoto: Soshisha's memorial museum was built long before the municipal museum. Of course I prefer Soshisha.

Each of the museums have a role. The municipal museum is very big and the exhibition was very expensive, lots of bright panels and so on. A lot of money was spent to build this kind of building. They are exhibiting big pictures to make people learn about Minamata disease history comprehensively.

Soshisha's museum is small, but it includes lots of historically important things which were used at the time when Minamata disease occurred. This includes historical things used when Minamata disease patients were fighting in the court cases.

You can't choose between the museums, you need to see both.

There are some things I don't like about the municipal museum. The way of thinking behind the exhibition - I don't like the intentions behind it. By intentions I mean Chisso's intentions, the municipal government's intentions, the citizen's intentions, the patient's intentions, they are all mixed behind the exhibition.

Some good things about the municipal museum are that they are showing the history of Minamata disease from the very beginning. But it misses the history of the fights. The Minamata disease patients fought with governments and the Chisso company to receive compensation. This history has been omitted in the exhibit in the museum.

Soshisha and the municipal museum – they are in very different positions. Their way of thinking is very different. Soshisha's facility is built clearly on the side of the patients and supporters. I can't say on the whole if that is the same for the municipal museum.

A lot of people go to the municipal museum. It's a public facility, people who want to learn about Minamata go to the municipal museum. Every 5th grade elementary student in Kumamoto prefecture has to go to the municipal museum. Soshisha has a very small museum, and a very small number of people go there. In my opinion, the real Minamata disease history is in that facility.

Ruth: Is there a specific film or Minamata representation that you like?

Sakamoto: I specifically like the works of Noriaki Tsuchimoto. Among his films, the one I like the best is Minamata: The Victims and Their World. I like it because the movie shows the real efforts by the people to fight for compensation. The real truth.

Ruth: Do you think the Minamata Convention on Mercury was successful?

Sakamoto: Yes, I think so.

Ruth: What changes would you like to occur in the future?

Sakamoto: In the future, I hope other people will succeed me and other storytellers will appear. I hope that more people pass down the knowledge of Minamata to future generations. I think there are laws in place to stop things like this from happening again.

Ruth: What do you think of Minamata becoming an environmentally model city?

Sakamoto: I think it's good. There are such aspects to the environmental city label that could encourage people to forget about the past. But in general, being an environmentally model city is a good thing in and of itself.

Ruth: What about teaching young people about Minamata disease in schools?

Sakamoto: I want schools to teach about Minamata disease more and more. I think school groups should visit the Soshisha museum.

Ruth: Do you think Japan needs to change its attitude towards pollution as a whole?

Sakamoto: Yes, absolutely. The most important thing is for the government to send a real message. To emancipate the people with the real history, the real truth.

Interview 2: Minamata Disease Activist, Kunio Endo, 27 March 2024

Ruth: What do you think of the municipal museum? Why doesn't it show the victims' fight for compensation?

Endo: I need to explain the system. The relationship between perpetrator and victim is still very much alive. Therefore, the government has an excuse – they have to be 'sensitive' to the ongoing struggle. (That's why they don't show the legal battles). Victims and their supporters in Minamata believed that the municipal government didn't understand their life situations, their fight for compensation, etc. So, they can't display that side of the history. It's all based on authority; the museum is created using the power of the government. So, they don't want to show something that's not useful to the government.

For example, there is a museum in Fukushima that is also government owned. They have a storytelling program, and the storytellers have been asked not to expose the responsibility of the government. There is no such pressure here in Minamata. It is a different history. Fukushima is not over. But in the 1990s, the government admitted wrongdoing for Minamata. But in Fukushima, there is still propaganda that won't change.

The storytelling program in Minamata is based on feeling. It is 'katari' - stories of the people. In Fukushima, it is 'densho' - implying old stories passed from mouth to mouth. It allows certain limitations to certain perspectives. In a folklore sense. There is no room to add the feeling of people living today.

Ruth: Why do you think activists come to Minamata who aren't from Minamata?

Endo: They come to Minamata because they want to support the cause. For example, I knew about Minamata, but I wanted to look with my own eyes. I knew about Soshisha, but the atmosphere was not matched to me. The reason why there are no activists from Minamata? It's a mystery. People stay here because they aren't from Minamata. The people who grew up here are very sensitive to the perpetrator/victim relationship, so it's difficult to say something. Activists from the outside can run away if something goes wrong. Many local people want to run away from Minamata, but they can't – they have relations with the victims, with Chisso, etc. They physically can't escape these relations.

Ruth: Does saying 'I'm from Minamata' have connotations even today?

Endo: Yes, but they are weaker than before. Saying 'I'm from Minamata' does have connotations. People can't explain it very well, and they are afraid to be asked. Especially if they have a relationship with a victim of a Chisso worker, it's even harder to explain.

But we don't really have the knowledge about it, not explicitly at least, more experimentally. There are so many perspectives, it is difficult to make a simple story of how people experience being from Minamata today. We don't have the research or questionnaires.

Ruth: Are people still suffering today?

Endo: Most people over 50 have been exposed to mercury and suffer symptoms of some kind. Some realise this, and some ignore it. They ignore their own health status.

Ruth: What is the image of Soshisha like now?

Endo: It's better than the past. Many citizens believed Soshisha was a threat in the 1990s, because they were loyal to Chisso.

Until the 1990s, Soshisha (including Endo) thought that citizens of Minamata were the enemy. Citizens who supported the government and Chisso were extreme activists who worked against them. But the citizens aren't the enemy anymore. Ideas changed in the 1990s. Particularly because there was a protest against building an industrial waste disposal site – and this united the Minamata victims and the citizens in one cause. Finally, they built a landfill in the mountains. This was one of the arguments in the election of the mayor.

Ruth: Why aren't there images of faces in the Soshisha museum?

Endo: Because it is showing the other history. They also have guided exhibitions, which are different depending on the person. The museum does not follow a template.

Ruth: What do you think about the image 'Tomoko and Mother in the Bath?'

Endo: Tomoko's family were hurt by the decision to exhibit that photograph. When he took the photo, it was staged. It was not good for the family. But it is also true that, because of that photo, many people in the world learned about the disease. So, it was good and bad. If you tell stories to the world, someone has to get hurt. This is the meaning of 'densho' - avoiding harm is like hiding. You can't avoid harm. If you do not tell the story, then people still get harmed.

Ruth: Do you think representations of the Minamata disease are over? Has the media portrayed the disease as over?

Endo: Most of the disease is over, but some people are still fighting. For me, we should evaluate it as an event of the past.

It is not always treated as a past event. Last year, Osaka had an exhibition which depicted it not as a moment of the past, but happening now.

Ruth: What do you think about the Minamata memorials?

Endo: The Minamata Eco Park has a memorial filled with 'Italian balls.' This does not look like a Japanese memorial. The 108 balls is a Buddhist metaphor. But the other one, by the sea, is the one that the Japanese like, with a bell you can ring. For the Japanese, this memorial is easy to understand.

There was a competition, Japanese and international, for the memorial. A famous Italian architect was selected. They built this very seriously, but people stopped using the space because they didn't like it.

Then, there was a project team to think of a new memorial, a Japanese one. This was selected from Soshisha. It is what the memorial should have been. The same style as always –

everyone loves the formulated style. For the Japanese, it is important to have a place to pray. Among the silver balls, there is no place to pray.

Interview 3: Legambiente Lombardia Employee, Oriana Oliva, 3 December 2024

Ruth: Explains research. Asks for information about her role.

Oriana: We [Oriana and second speaker] work for Legambiente Lombardia. I don't know if you know it. We work at Bosco delle Querce because we have an assignment. The assignment is for environmental education at the Bosco, and it is done both with schools – schools that are both local - and also schools that request from other municipalities. Visits to the Bosco are generally done with a part dedicated to history.

So, we show a video and songs that talk about the Bosco and starting from these we begin to tell what happened. After that we go out to visit the Bosco externally and we also tell a little about how the Bosco was built, what animals are there, a little about the plants. Then there are schools that make special requests, so the Bosco is also used as a place to do environmental education on other topics. We set the projects that concerned climate change, we did, years ago, activities dedicated to separate waste collection so starting from there we expand the offer a little. We also do environmental education for citizens, so we organise events for citizens and also evenings on topics that always concern, let's say, environmental issues and activities for citizens that are both entertainment but always aimed at giving an environmental message. For two years, the communication part has also been entrusted, therefore the management of the Bosco website of the social networks of Facebook and Instagram, to make a press check.

The municipality of Seveso has also entrusted us with some calls for tenders from the Lombardy region, for which we participate in the meetings where all the regional parks meet… and a project that is more on the outdoor classroom for schools - the Woods as a classroom and well-being in nature.

Ruth: How do you engage with younger generations?

Oriana: So, we have some schools that have been coming regularly for years now. They do welcoming activities, that is, the first classes that start have a sort of moment to get to know each other, whether they have been following us for 15 years. They are schools that depending on - if we have the funds because clearly the school if the activity is free, more easily joins. So, in the years in which we have the possibility, there are the schools in the area that participate, let's say especially the primary schools. Then there are schools that come… Well, some high schools have been coming back for years to do activities, or schools that come to play sports. Groups of university students also come who came a bit like you who were interested in the event or maybe because they were chemists and were more interested in the part of the event itself.

Ruth: How have the residents of Seveso interacted with and responded to the Bosco delle Querce over the years?

Oriana: So, it depends on who they are. The new generations and those who moved to Seveso after the accident experience it as a park, as a regional natural park. So much so that many people who live in Seveso do not know the history of the park at all. Those who experienced

the accident more closely still experience it a bit as a place where this thing happened that is remembered, in short, many remember it well. It depends a bit on the people.

And it's much easier to talk about it now. There is also a bit of calm over what were initially the controversies, as the years go by, the intensity is lost a bit.

For those who were adults then unfortunately, those people are no longer there, so let's say that those who lived it as a boy has a different way of dealing with this episode. Or the people more connected to environmentalism. There is more attention, more memory still, and they experience it differently.

Ruth: Do you think more should be done to raise awareness about the long-term consequences of the Seveso disaster, or do you feel it has been sufficiently addressed?

Oriana: You can always do something better. Now there is a situation where you could do worse in the sense that I think you have heard of this intervention that must be done in Pedemontana that will probably affect a part of the Bosco. So, this is certainly a step backwards compared to that of the protection of the Bosco or even the expansion. It is true that in the latest news almost a million euros have been allocated to compensate for this intervention that they will do. So, with this money the park will probably be expanded in another direction. So, improvements can be made.

Ruth: Do you believe that the lessons from Seveso have influenced industrial safety and environmental regulations in Italy and Europe?

Oriana: Yes, in fact there was the Seveso Directive. The accident was a damage for us at the same time, but I hope that precisely by having this law it has avoided that an event of this type could happen elsewhere. It is not because if there is a regulation, then everyone respects it, because there have been other accidents. Maybe different but they have happened. The laws exist. But it was certainly a starting point.

Ruth: Are there any public ceremonies or events to remember the Seveso disaster?

Oriana: There is the tenth of July, the date of the disaster, usually something is done, an event in the park.

It's not a conference where you invite political figures – they are small events, sometimes dedicated a little to the theme, they are in-depth studies on Bosco, other times- last year we did an event on the educational community. The important events are held when there is the anniversary of the thirtieth, fortieth... Let's say that on the day of July 10, the visits of journalists and photographers increase a lot, and the guided tours in addition.

Ruth: Has photography and visual components impacted the way people learn about Seveso? Are they used in the environmental education?

Oriana: Photographs are fundamental, very important, because, especially today, we live more surrounded by images than we did years ago. Not only children, but even adults have more difficulty following the verbal part [of the disaster story] and therefore the image has a much stronger power and helps people to identify with the period in which the accident occurred.

Especially those of the people in my opinion - they make people understand what the state of the people was - because there are also some shots of people who are either crying or suffering - that make it clear even on an emotional level that it shook the community a lot. Even in the video where there are testimonies of people, I think that is the moment in which the children realize that it is a real story, that it really happened.

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