

Japanese Disaster Cinema as Lessons Learned in Disaster Education in Indonesia

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Abstract

This study aims to systematically review the development of studies on Japanese disaster cinema and identify its implications for the development of disaster education in Indonesia. The study uses a qualitative approach through a systematic literature review (SLR) following the PRISMA-based selection process. Literature was collected from international academic databases and analyzed using thematic analysis to identify patterns of meaning and trends in studies. The result of the study show that research on Japanese disaster cinema developed dynamically in the period 2012-2025 and can be classified into four main themes. The first theme relates to disaster narratives and social meaning construction, which positions film as a medium for reflecting on trauma, risk, and social charge. The second theme highlights trauma and collective memory, where cinema functions as a cultural archive that records and negotiates post-disaster experiences. The third theme discusses the relationship between humans, nature, and technology, showing how cinema represents disasters as the result of complex interactions between ecological systems, modernity, and human responsibility. The fourth theme examines the implications of cinema as a pedagogical medium capable of bridging the cognitive and affective dimensions of disaster education. The research findings confirm that cinema not only functions as a cultural representation, but also as a space for social reflection and learning that has the potential to increase risk literacy, social empathy, and critical awareness. Therefore, the use of visual media and cinematic narratives can be a complementary approach in the development of more contextual, participatory, and culture-based disaster education in Indonesia.

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Keywords: Japanese disaster cinema; disaster education; collective memory; risk literacy

INTRODUCTION

The Asia-Pacific region is one of the areas with the highest risk of natural disasters in the world due to its position along the Pacific Ring of Fire, which is marked by the meeting of major tectonic plates, intense volcanic activity, tropical climate dynamics, and high population density. Japan and Indonesia occupy a central position in this landscape with a long history of earthquakes, tsunamis, volcanic eruptions, typhoons, and major floods that have not only caused physical and economic losses, but also shaped the collective memory and social response patterns of society. In Japan, the Great Hanshin-Awaji Earthquake (1995) and the Tohoku Earthquake and Tsunami (2011) became important milestone in the reform of mitigation policies, the strengthening of early warning systems, and the integration of disaster education into formal curricula and community practices. Meanwhile, in Indonesia, events such as the Aceh Tsunami (2004) and the Lombok and Palu-Donggala earthquakes (2018) underscore the urgency of improving risk literacy as part of efforts to build sustainable preparedness at the local and national levels. In this context, disaster education is seen as the main foundation for building social resilience, risk literacy, and the adaptive capacity of communities to future disasters (UNDRR, 2022).

Disaster literature emphasizes that disaster education not only serves as a transfer of technical knowledge about hazards, mitigation, and preparedness, but also as a foundation for social resilience that shapes how communities understand, remember, and respond to disasters as a collective experience. Community-based education and local experiences are seen as capable of encouraging citizen participation, building trust in institutions, and instilling values of solidarity and collective responsibility in disaster risk reduction. Studies show that risk perception and collective memory have a significant influence on community preparedness behavior, so the learning process needs to simultaneously address cognitive and affective dimensions (Becker et al., 2017). In the framework of sustainable development, disaster literacy acts as a bridge between public policy, educational practices, and social dynamics at the grassroots level, emphasizing the importance of social networks and cultural memory in building adaptive capacity (Shaw et al., 2011; UNDRR, 2022). Disaster education can be positioned as a strategic space to integrate technical, social, and cultural dimensions in efforts to build a resilient and sustainable society.

Along with the development of the information society and global visual culture, the role of the media in disaster education has undergone a significant shift from merely conveying emergency information to becoming a strategic arena in the formation of social meaning,



collective memory, and sustainable risk perception. In recent decades, cinema has occupied a central position as a pedagogical and cultural medium that represents disasters not only as physical events, but also as social experiences fraught with trauma, solidarity, and human-nature and technology relations. Through visual and symbolic narratives, the media frames the way the public interprets risk, state capacity, and social responsibility in the face of crises. Film and memory studies show that disaster films function as “cultural archives” that record collective trauma while negotiating human relationships with nature, modernity, and power through layered narrative representations (Kaklamanidou, 2018; Kennedy, 2020; Kirby, 2015; Sontag, 2003). Cinema not only acts as a reflective medium, but also as a pedagogical space that has the potential to shape critical awareness, social empathy, and public imagination about disaster risk reduction.

In Japanese cinema tradition, disaster films ranging from *Gojira* (1954) to post-3/11 representations (*March Comes in Like a Lion*, *The Land of Hope*) cannot be separated from the historical experience of national trauma, the dynamics of modernization, and collective anxiety about technology and the relationship between humans and the forces of nature. This cinema developed as a genre that reflects the nation’s experience of earthquakes, tsunamis, and post-Hiroshima, Nagasaki, and Fukushima 2011 nuclear trauma, so that disasters are interpreted not only as physical destruction, but also as technological, moral, and social crises. Japanese disaster films represents disasters as social crises that give rise to community solidarity, collective ethics, and critical reflection on institutional responsibility and failure (Igarashi, 2012; Wada-Marciano, 2023). Japanese cinema also serves as a space for negotiation between collective trauma, technological progress, and human values that shape national memory as well as public imagination about risk and resilience (Susan Jolliffe Napier, 2007). This perspective is in line with contemporary disaster education approaches that emphasize socio0cultural dimensions, citizen participation, and experience-based reflective learning as the foundation for building community resilience.

Although studies on Japanese disaster cinema have developed relatively well in film studies and cultural studies, their relevance to disaster education practices has not been systematically studied, especially in the context of Indonesia, which has high social and cultural diversity. Disaster education literature in Indonesia tends to focus on strengthening formal curricula government policies, and community-based technical simulations as the main instruments for improving community preparedness (Amri et al., 2022; BNPB, 2024; Lassa, 2018). This approach often places learning within a normative institutional framework, thereby limiting



the space for exploring cultural media as a means of critical reflection and social meaning-making. In fact, film as a visual and narrative text has the potential to bridge technical knowledge with the emotional experiences and local contexts of the audience. Therefore, the integration of cinema as a source of contextual and dialogical learning is important to expand the horizons of disaster education to be more participatory and oriented towards social resilience.

This study aims to systematically review the academic literature on Japanese disaster cinema and examine the potential lessons learned that are relevant to the development of disaster education in Indonesia in different social, cultural, and institutional contexts. Theoretically, this study contributes to enriching the interdisciplinary dialogue between film studies, collective memory, risk communication, and disaster education as an integrated analytical framework. This approach allows for a deeper understanding of how visual and narrative representations shape meaning, empathy, and risk awareness at the individual and community levels. Practically, this research is expected to provide a conceptual basis for the use of cinema as a contextual and participatory alternative pedagogical medium to improve risk literacy, social empathy, and disaster preparedness. Thus, cinema can be positioned as a strategic instrument in strengthening social resilience and the sustainability of disaster education in Indonesia.

OVERVIEW

Representation of Disasters in Media and Cinema

The representation of disasters in media and cinema stems from the understanding that disasters are not merely natural events, but social and cultural constructions mediated by narratives, visuals, and ideologies. The concept of disaster narrative positions film as a medium that frames disasters through certain dramatic patterns such as crisis, destruction, collective response, and recovery, which help communities organize uncertainty, make sense of trauma, and build understanding of risk and resilience (Dynes, 1994; Dynes et al., 1990; Kirschenbaum, 2019). In media and cultural studies, collective memory is understood as a social process in which traumatic experiences are reproduced, negotiated, and passed down across generations through visual and narrative representations (Assmann, 2011; Zelizer, 1995). Disaster films contribute to the formation of this memory by depicting images of destruction, suffering, solidarity, as well as figures of heroism and the failure of social institutions. Cinema has a special capacity to construct social meaning because of its multisensory and emotional nature, which allows audiences to experience disasters in an immersive way, rather than merely as factual information. Visual and symbolic representations in films not only reflect reality but also shape perceptions of risk, public



expectations, and expectations of state and community responses (Cutter et al., 2008; McGeehan & Baker, 2017). Disaster films can be understood as informal pedagogical spaces that instill certain values about preparedness, social responsibility, and human-nature relations. Cinema functions as a cultural medium that connects individual experiences with collective narratives about disasters and social resilience.

The Development of Japanese Disaster Cinema: A Historical Perspective

Japanese disaster cinema developed alongside the nation's traumatic history, particularly in the post-World War II context marked by the experience of nuclear destruction and accelerated technological modernization. The film *Gojira* (1954) is often positioned as an important starting point, in which the monster figure serves as a collective metaphor for nuclear trauma, fear of uncontrolled science, and the tension between modern progress and postwar memories (Susan Jolliffe Napier, 2007; Tsutsui, 2004). In this phase, disasters were represented as consequences of human intervention in nature and technology that exceeded ethical boundaries. Entering the 1970s-1990s, along with increasing public trust in mitigation and risk management systems, Japanese disaster cinema began to feature a more technocratic and institutional approach. The experience of the 1995 Hanshin-Awaji earthquake prompted a shift in narrative towards an emphasis on community solidarity, social vulnerability, and the failure and responsibility of the state in protecting its citizens (Aldrich, 2012). After the 2011 Tohoku disaster and Fukushima nuclear crisis, representations of disasters became increasingly reflective, intimate, and humanistic, focusing on everyday trauma, local memory, and the fragile ethical relationship between humans and nature (Slater et al., 2014; Wada-Marciano, 2023). This change shows that Japanese disaster cinema does not merely function as spectacular entertainment, but as a cultural archive that records the dynamics of society's attitudes towards technological risk, authority, and collective responsibility. In this historical framework, film becomes a medium of social reflection that continues to adapt to disaster experiences and changes in social values.

Disaster Education: A Culture-Based and Visual Media Approach

The literature on disaster education emphasizes the importance of an approach that goes beyond the transfer of technical and procedural knowledge toward contextual learning rooted in cultural values, historical experiences, and social practices of the community. Research shows that education based on culture and local context can increase the relevance of learning and strengthen community involvement in disaster risk reduction efforts (Shaw et al., 2011; Shiwaku



& Shaw, 2016). Visual media, including films and documentaries, are seen as strategic mediums that can bridge the cognitive and affective dimensions, thereby not only improving technical understanding but also empathy and risk awareness among learners (Gaillard & Mercer, 2013; Ronan & Johnston, 2005). Narrative-based and visual symbol approaches enable learners to connect scientific information with everyday experiences and collective community memories. In disaster-prone countries such as Japan and Indonesia, contextual learning that utilizes local stories and historical experiences has proven to be more effective in building preparedness than normative top-down approaches (Shaw et al., 2011; Takeuchi et al., 2011). Popular media also acts as a bridge between scientific knowledge and social practices, making mitigation messages easier to accept and internalize by various age groups. Thus, culture-based and visual media-based disaster education not only strengthens risk literacy but also builds citizens' reflective capacity and participation in disaster management. This approach positions learning as a dynamic social process in which knowledge, values, and collective experiences interact to shape community resilience.

Film and Popular Media as a Means of Social Learning and Disaster Mitigation

A number of studies have linked film and popular media to social learning related to disasters and risks by positioning cinema as an informal learning space that influences attitudes, imagination, and public discourse regarding the causes of disasters, responsible actors, and mitigation strategies (Houston et al., 2012, 2015). Visual representations and narratives in films not only convey information but also shape the audience's interpretative framework regarding ethics, solidarity, and collective roles in facing crises. In the Japanese context, disaster films and anime have been shown to contribute to shaping young people's understanding of disasters as asocial experiences that demand preparedness and shared responsibility (Hasegawa, 2017). In the realm of informal education, films often serve as catalysts for critical discussion when combined with pedagogical facilitation that encourages reflection on values, policies, and mitigation practices (Miles & Morse, 2007). However, the literature also warns that the tendency toward dramatization and simplification of narratives has the potential to mislead public perception if not balanced with media literacy and a reflective analytical framework. Therefore, integrating films into disaster education requires a critical and contextual pedagogical approach so that mitigation messages can be understood accurately and meaningfully.



RESEARCH METHOD

Research Approach

This study uses a qualitative approach based on a systematic literature review (SLR) to map empirical findings and thematic trends that have developed in Japanese disaster cinema studies and their relevance to disaster education in Indonesia. SLR is understood as a reflective method for identifying the direction of theory development and pedagogical implications of cinematic representations of disasters (Snyder, 2019). This study refers to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) principles in the stages of identification, screening, and inclusion of literature with adjustments for the context of qualitative studies and cultural studies (Page et al., 2021).

Data Sources

The literature search was conducted systematically through reputable international academic databases, including Scopus, Web of Sciences, Google Scholar, JSTOR, and Taylor & Francis Online to ensure the accessibility and quality of globally indexed sources. The main keyword were compiled in English to ensure consistency in cross-disciplinary searches, including “Japanese disaster cinema”, “collective memory and film”, and disaster education”. This search strategy was designed to capture a spectrum of literature covering film studies, cultural studies, risk communications, and disaster education in an integrated manner.

Literature Selection Criteria

The inclusion criteria include (1) indexed journal articles and reputable academic books that are directly relevant to Japanese disaster cinema, collective memory, or disaster education; (2) publications are limited to the period 2012-2025 to capture the latest dynamics in the aftermath of major modern disasters, including the 2011 Tohoku Earthquake and Tsunami and the Fukushima crisis. Meanwhile, exclusion criteria include (1) non-academic publications or popular writings without peer review; (2) film reviews without a clear theoretical framework; and (3) studies that only discuss technical aspects of disasters without social, cultural, or educational dimensions.

Data Analysis

Data analysis was conducted through thematic analysis to identify and synthesize patterns of meaning across the literature through the stages of initial coding, theme searching, and theme



review (Braun & Clarke, 2006). This approach was chosen for its flexibility in examining cross-disciplinary qualitative texts, particularly at the intersection of film studies, cultural studies, and disaster education. The main themes analyzed include disaster narratives and social meaning constructing in visual representations, trauma and collective memory, human-nature and technology relations in Japanese disaster cinema, and their implications for the development of media and culture-based pedagogical approaches. In addition, narrative synthesis is used to integrate findings with the values of preparedness, mitigation, and social resilience, as well as the potential for knowledge transfer into the context of disaster education in Indonesia (Krippendorff, 2018).

RESULT AND DISCUSSION

This section of the study presents the main findings of the literature review through three complementary forms of visualization. First, the article selection process is displayed using the PRISMA scheme to show the process of identification, screening, and selection of studies for analysis. Second, publication trends are shown through graphs that illustrate the development of the number of studies from year to year, revealing the dynamics of academic interest in Japanese disaster cinema. Third, the distribution of research themes is visualized in a diagram showing the proportion of studies based on the focus of analysis, namely narrative and social meaning construction, trauma and collective memory, human-nature and technology relations, and their implications for media and culture-based pedagogical approaches. These visualizations provide a comprehensive overview of the characteristics of the research corpus analyzed before further discussion is conducted.

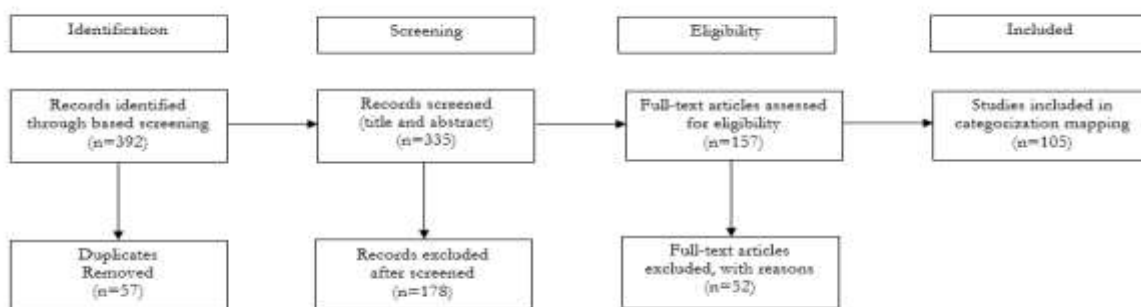


Figure 1. PRISMA Literature Selection Flow

Source: Processed from secondary data (2026)

The PRISMA scheme in Figure 1 shows the systematic stages in the literature process used in this study. At the identification stage, 392 documents were obtained through database searches. After removing 57 duplicate documents, 3335 titles and abstract were screened. Of these, 178 documents were eliminated because they did not match the focus of the study, leaving 157 articles that were further analyzed at the eligibility assessment stage through a text reading process. At this stage, 52 articles were excluded because they did not meet the inclusion criteria, either in terms of topic relevance, focus of the study, or suitability with the analytical framework used. Thus, a total of 105 studies were declared to meet the criteria and were included in the theme categorization mapping. This gradual selection process ensured that the literature analyzed was truly relevant to the focus of the study, while maintaining consistency and accuracy in the preparation of the study corpus.

Next, after going through the literature selection stage using PRSIMA, an analysis was conducted on the search for publication development patterns to see the dynamics and trends in Japanese disaster cinema studies over time.

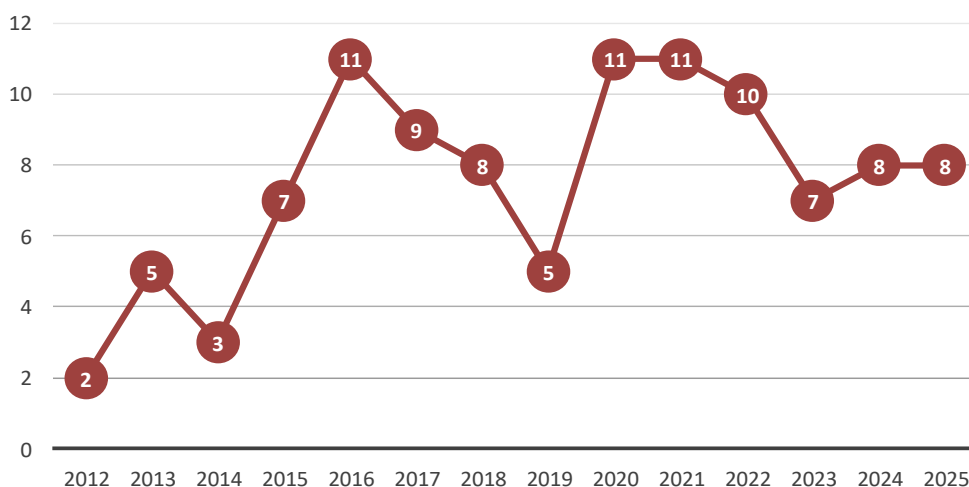


Figure 2. Publication Trends 2012-2025

Source: Processed from secondary data (2026)

The graph in Figure 2 shows the trend in the number of publications discussing Japanese disaster cinema in the period 2012-2025. At the beginning of the study period, the number of

publications was still relatively limited, with only two articles in 2012. Then it increased to five in 2013 before declining again in 2014. Since 2015, there has been a significant upward trend, with the first peak occurring in 2016, reaching eleven publications. After experiencing moderate fluctuations in 2017-2019, the number of publications increased sharply again 2020 and 2021, reaching eleven articles each, before declining slightly in 2022 and stabilizing again at around seven to eight publications per year in the period 2023-2025. This patterns shows that academic attention to Japanese disaster cinema is developing dynamically, with phases of intensification indicating the increasing relevance of this topic in film, cultural, and disaster studies, while also demonstrating the continuity of research interest up to the present period.

The upward trend and sustainability of these publications not only indicate growth in the quantity of studies, but also reveal the diversity of research focuses that have developed within them. Therefore, further analysis is directed at the distribution of the research themes to see how this academic attention is spread across various main areas of study.

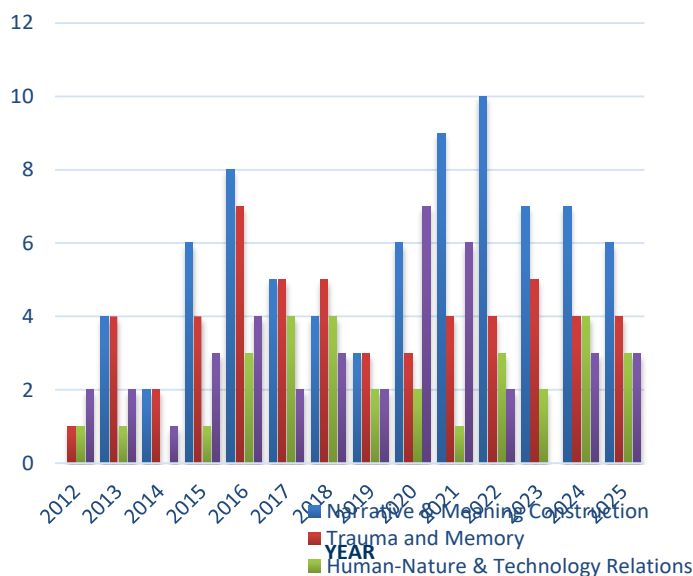


Figure 3. Distribution of Literature Themes

Source: Processed from secondary data (2026)

The graph in Figure 3 shows the distribution of articles analyzed based on four main

themes of study. The theme of disaster narratives and social meaning construction in visual representations occupies the large proportion, indicating that most studies focus on how disasters are represented in films, anime, and visual media, and how social meaning is formed through cinematic narratives. The theme of trauma and collective memory also appears in significant numbers, reflecting academic attention to the role of cinema in representing traumatic experiences, the process of historical meaning-making, and post-disaster public memory. Meanwhile, the theme of human-nature and technology relations in Japanese disaster cinema shows a stable contribution, especially in studies that highlight ecological issues, nuclear risks, and the dynamics of technological modernity in the context of disasters. The theme of implications for the development of media and culture-based pedagogical approaches has a more limited proportion, but remains important because it shows the potential for utilizing films and visual media as a means of social learning, disaster literacy and strengthening community preparedness.

Overall, the visualizations show that studies on Japanese disaster cinema are developing gradually with themes centered on narrative and social meaning construction, trauma and memory, and human relations with the environment, while pedagogical aspects are beginning to gain attention as a relevant direction for development. These findings indicate that cinema not only functions as a medium of cultural representation, but also as a space for social reflection and a potential source of learning that can be adapted in the context of disaster education in Indonesia, thus opening up opportunities for the integration of media and culture-based approaches in strengthening risk literacy and community resilience.

Narratives of Disaster and the Construction of Social Meaning in Japanese Cinema

Based on the results of literature analysis, the themes of disaster narratives and social meaning construction emerged as the most dominant focus in Japanese disaster cinema studies. A number of studies show that disaster films are not understood solely as representations of natural events, but as a medium for social and cultural reflection that shapes public understanding of trauma, risk, and social change (Dahlberg & Reichardt, 2022; Mathias, 2025; Sontag, 2013; Zornado & Reilly, 2024). Other studies also emphasize that cinema functions as a space for the production of meaning, where visual symbols, dramatic plots, and character constructions are used to interpret the collective experience of society in the face of destruction and uncertainty (Bertalanffy, 2024; Ogawa, 2016; Wang, 2024; Wiesinger, 2018). Thus, disaster cinema serves not only as a reflection of reality, but as a cultural mechanism that shapes the way society understands and remembers disasters.



One important patterns that emerges in the literature is the use of metaphors and symbolism as a means of interpreting disasters (Broderick, 2013; Burton, 2020; Lamarre, 2022; Tsutsui, 2024). Analysis of contemporary films and anime, including the works of Makoto Shinkai, shows that disaster symbolism is often combined with themes of spirituality, human-environment relations, and the anxiety of the younger generation about the future (Bardon, 2023; Geal, 2021; Li, 2024; Teng, 2022). This symbolic approach shows that disasters in Japanese cinema often function as social metaphors that are broader than mere physical events.

The next patterns relates to narrative constructions that frame disasters as moral, social, and political crises. Various studies show that post-disaster films and documentaries, especially after Fukushima 2011, often present criticism of the state, scientific institutions, and power structures that are considered to have failed to manage risks effectively (Furukawa & Denison, 2015; Gössmann, 2025; Long, 2018; Wada-Marciano, 2023). Such narratives also reveal social inequality, nationalism, and issues of collective responsibility that are exposed through visual media and popular culture (DiNitto, 2018; Hirano, 2022; Yee & Chu, 2018). In this context, disasters are understood not merely as natural phenomena, but as the result of complex interactions between human decisions, political systems, and economic structures.

The literature also shows a post-Fukushima shift in aesthetics and narrative approaches from spectacles of destruction to more reflective narratives oriented toward personal experiences. Post-3/11 films and documentaries tend to focus on individual trauma, local memory, and the process of emotional healing, rather than depicting destruction on a large scale (Fujiki, 2016b; Geilhorn, 2023; Ma, 2021; McRoy, 2022). This shift has been accompanied by increased attention to issues of gender, youth, and everyday life in post-disaster situations, which broadens the meaning of disaster as a long-term social condition (DiNitto, 2018; Drummond-Matthews et al., 2017; Li, 2024).

These findings show that disaster narratives in cinema function as cultural devices that organize experiences, manage trauma, and shape collective imaginations about the future (Satpathi & Smith, 2014; Worstall, 2020). In the Japanese context, films not only represents destruction but also shape public perceptions if vulnerability, social responsibility, and the possibility recovery. Thus, disaster cinema can be understood as a reflective medium that contributes to the formation of risk awareness and social resilience, making it an important source of learning in the development of culture-based disaster education.



Trauma, Collective Memory, and Post-Disaster Representation

Studies on trauma and collective memory in Japanese disaster cinema show that films serve as a cultural medium that records and reshapes social memories of traumatic events, from Hiroshima and Nagasaki to the 3.11 disaster and the Fukushima nuclear crisis. Various studies confirm that the representation of disasters in films, documentaries, anime, and other visual media not only documents events but also reconstructs historical meaning, national identity, and the experiences of survivors through narrative and symbolic processes that are continuously updated across generations (Broderick, 2013; DiNitto, 2014; Hedges, 2013; Lucken, 2017; Xu, 2015). In this context, cinema can be understood as a cultural space where society renegotiates traumatic experiences and forms a collective understanding of the past.

These practices of memorialization appear in various forms, including film archives, documentaries, and visual recordings that function as dynamic collective memories, showing how disasters are reinterpreted according to changing social and political contexts (Ma, 2021; Osawa, 2013; Takakura & Boret, 2021; Tochigi, 2022). The literature shows that this process of archiving and visual reproduction allows traumatic experiences to not only be stored, but also reinterpreted by subsequent generations, making the memory of disasters part of an evolving public discourse.

Other studies show that post-disaster cinema, especially after Fukushima, tends to portray trauma as a personal, layered, and ongoing experiences, with a focus on the daily lives of survivors, issues of youth, disability, and social relations severed by the disaster (Fujiki, 2025; McRoy, 2022; Meng et al., 2023; Šilhová, 2025). This approach is often linked to criticism of energy policy, fear of nuclear power, and the long-term uncertainty experienced by affected communities, so that trauma is understood not only as a psychological phenomenon, but also as a broader social and political issue (Baer & Mason, 2024; Gössmann, 2025; Kiejziewicz, 2017; Wada-Marciano, 2023).

A number of studies also emphasize that post-3.11 films and documentaries play a role in the process of social healing through public discussion spaces, film festivals, and community screening networks that enable the sharing of experiences and strengthen community solidarity (Downing Roberts, 2019; Fujiki, 2016b, 2016a; Hitomi, 2018; Long, 2018). Furthermore, the representation of disaster memory in manga, anime, and fictional films shows how symbolism, aesthetics, and emotional narratives are used to foster public empathy and awareness of human vulnerability in the face of ecological and technological threats (Bartal, 2016; Drummond-Matthews et al., 2017; Wang, 2024).

Overall, the literature shows that collective memory in Japanese cinema is not a static archive, but rather an ongoing process of cultural negotiation, in which trauma, identity, and



hopes for the future are reproduced through diverse visual and narrative representations (Gu, 2025; Lamarre, 2022; Worstall, 2020). This perspective shows that learning about disasters cannot be separated from the dimension of memory, empathy, and social reflection, because the way societies remember disasters often determines how they prepare for the future.

The Relationship between Humans, Nature, and Technology in Japanese Disaster Cinema

The theme of the relationship between humans, nature, and technology appears in a more limited amount of literature than other themes, but shows remarkable conceptual depth. A number of studies confirm that Japanese disaster cinema consistently places disasters at the intersection of natural forces, technological modernity, and human responsibility, so that disasters are not understood solely as conflicts between humans and nature, but rather as the result of complex interactions between ecological systems, modernity projects, and socio-political decisions (Geal, 2021; Kaplan, 2016; Yee, 2025). This perspective also shows that films function as a medium of cultural reflection that interprets the position of humans in a broader system, including the historical, spiritual, and technological relations that shape the experience of disaster (Garcia-Siino & Guynes, 2020; Urios-Aparisi, 2015).

An important trend that often emerges in the literature is criticism of the myth of technological safety, particularly in nuclear representations. From the postwar era to the post-Fukushima period, Japanese films have often depicted technology as an ambivalent entity, both a symbol of progress and a source of existential threat (Burton, 2020; Kiejziewicz, 2017; Yoshimoto, 2019). Studies of various films, including the Godzilla series and post-3.11 works, show that nuclear power is often represented as a symbol of humanity's failure to control its own creations, as well as a critique of technological nationalism and overly optimistic scientific discourse (Lamarre, 2022; Sakamoto, 2024; Tsutsui, 2024). In this context, cinema not only represents disaster, but also reveals the limits of modern rationality and the ethical consequences of risk-based development (Baer & Mason, 2024; Wada-Marciano, 2023).

Another trend relates to ecological and spiritual views of nature rooted in Japanese cosmology and animistic traditions. Several studies show that many films and anime depict nature not as an object of exploitation, but as a living entity with agency and sacred dimensions (Hadl, 2018; Mumcu & Yilmaz, 2018; Yoneyama, 2017). The representation of landscapes, liminal spaces, and supernatural forces in certain works reflects the influence of Shinto and local beliefs that place humans as part of an interconnected ecosystem (Bardon, 2023; Chong, 2020; Croteau, 2022; Suter, 2017). In contemporary anime films, disasters are often linked to disturbances in cosmic



balance, so that recovery is depicted as not only technical, but also spiritual and relational (Li, 2024; Susan J Napier, 2016; Teng, 2022).

Furthermore, post-Fukushima literature shows an increasingly strong ethical reflection on human responsibility towards the environment and sustainability. Post-3.11 films and documentaries not only record the tragedy but also expand the discourse toward fundamental questions about development models, ecological justice, and the long-term consequences of energy and industrial policies (Fujiki, 2025; O'Neill, 2019; Yee & Chu, 2018). Several studies emphasize that the representation of disasters in cinema encourages audiences to reflect on the relationship between political decisions, technological risks, and social vulnerability in the long term (DiNitto, 2018; Ogawa, 2016).

These findings show that Japanese disaster cinema not only represents physical destruction, but also articulates a philosophy of relatively, namely how humans understand their position between nature and technology. This perspective emphasize that risk is not merely a technical issue, but also an ethical, cultural, and even cosmological issue. In the context of disaster education, this approach shows that risk literacy needs to be accompanied by a critical understanding of sustainability, ecological responsibility, and human limitations in controlling the complex systems they have created – a reminder that progress always goes hand in hand with uncertainty, like a shadow that faithfully follows the body under the light.

The Implications of Cinema as a Pedagogical Medium in Disaster Education

Literature analysis indicates that films, documentaries, visual archives, and popular media are increasingly understood as effective mediums of social learning within disaster contexts. A number of studied emphasize that cinema functions not only as a form of cultural representation but also as a social practice that shapes how societies understand risk, empathy, and collective responsibility (Dahlberg & Reichardt, 2022; Satpathi & Smith, 2014; Zornado & Reilly, 2024). In post-disaster Japan, films and anime are often positioned as spaces for public reflection that bring together emotional experiences, personal narratives, and rational understandings of disasters. As a result, the viewing experience can contribute to the formation of risk awareness and social sensitivity (Kim & Park, 2021; Wang, 2024; Wier, 2019). These findings demonstrate that cinema is capable of bridging cognitive and affective dimensions in the learning process – an aspects that is often difficult to achieve through purely technical educational approaches.

The role of documentaries and visual archives also emerges as a crucial element in strengthening risk memory and public awareness. Studies on post-Fukushima documentaries



reveal that film does not merely record facts; it also serves as a tool for advocacy, the democratization of information, and citizen participation in public discourse on energy, the environment, and policy (Hitomi, 2018; Long, 2018; Ma, 2021; Wada-Marciano, 2022). Practices of digital archiving and the use of disaster footage further expand public access to collective memory, allowing disaster education to extend beyond formal classrooms into cultural spaces, film festivals, and community networks (Fujiki, 2016b, 2016a; Osawa, 2013; Takakura & Boret, 2021). In this way, cinema functions as a medium that connects survivors, filmmakers, and the public within a broader ecosystem of social learning.

Nevertheless, several studies caution that the use of film as learning medium must be accompanied by adequate media literacy. Disaster representations in film – particularly in commercial productions – sometimes simplify the complexities of crisis management or portray unrealistic scenarios, potentially shaping biased perceptions if not approached with critical interpretation (Denison, 2016; Sontag, 2013; Wier, 2019). Therefore, the integration of cinema into disaster education is recommended to be combined with reflective discussions, narrative analysis, and comparisons with scientific data so that learners are able to distinguish between dramatic representation and empirical reality.

These findings highlight important relevance for the development of disaster education in Indonesia. Research on visual media and post-disaster documentaries in Japan demonstrates that risk learning can be strengthened through approaches that emphasize not only technical procedures but also collective memory, social empathy, and ethical reflection on the relationship between humans and the environment (Broderick & Jacobs, 2015; Hadl, 2018; Yoneyama, 2017). Accordingly, cinema should be understood not merely as an instructional aid but as a medium that enables the integration of scientific knowledge, emotional experience, and cultural awareness in fostering societal resilience to disasters.

CONCLUSION

This study demonstrates that Japanese disaster cinema constitutes an important cultural space for understanding the relationship between disasters, memory, and society. Through a systematic literature review, the research finds that the academic study of disaster cinema has not only increased quantitatively but has also become more thematically diverse, encompassing narratives and the construction of social meaning, trauma and collective memory, human relationship with nature and technology, and their pedagogical implications. These findings suggest that films and visual media play a significant role in shaping risk perception, public



empathy, and ethical reflection on social responsibility in the face of disasters. Cinematic representations enable disaster experiences to be understood not merely as physical events but also as social, cultural, and historical phenomena that influence how societies remember and respond to future risks. Within the context of disaster education in Indonesia, these results indicate that media and culture-based approaches can complement learning methods that have traditionally focused in technical and procedural aspects. The integration of cinema as a learning resource has the potential to strengthen risk literacy by introducing reflective, emotional, and contextual dimensions that resonate more closely with community experiences. Overall, disaster cinema can be positioned as a pedagogical medium that not only conveys knowledge but also shapes awareness, empathy, and the collective imagination of social resilience. This approach opens opportunities for developing more holistic models of disaster education that integrate scientific knowledge, cultural memory, and critical reflection in fostering disaster-resilient societies.

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