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Research Article

ADDRESSING EARTHQUAKES THROUGH RISK SOCIETY THEORY AND SEMIOTICS: THE CASE OF FILM “SAN ANDREAS”

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Abstract

This study analyzes the film “San Andreas” through Ulrich Beck’s risk society theory and Barthes’ semiotic method. Beck argues that modern societies face escalating natural and technologically induced risks, with earthquakes standing out as disasters that cause severe destruction and long-term social consequences. These risks have increasingly drawn the attention of the film industry, leading to the production of earthquake-themed narratives. In this study, the film’s representations of earthquake-related dangers are examined through signifier, signified, and semiotic structures, focusing on the images, spaces, and associations that construct the film’s portrayal of risk. The analysis reveals that while earthquakes are natural phenomena, their impacts can be amplified by human actions and urban vulnerability. In conclusion, earthquakes are natural risks, but they can be triggered by man and can cause great destruction in settlements, and earthquakes involve risks that will lead to material losses, mass casualties, displacement, and broader social transformations.

Keywords: Earthquake, risk society, semiotics, Ulrich Beck, Roland Barthes.

DEPREMLERİN RİSK TOPLUMU KURAMI VE GÖSTERGEBİLİM ÜZERİNDEN ELE ALINMASI: “SAN ANDREAS FAYI” FİLMİ ÖRNEĞİ

Öz

Bu çalışma farklılaşan risklerin Ulrich Beck’in risk kuramı üzerinden San Andreas Fayı filminin göstergebilimsel incelenmesini içermektedir. Doğal ve imal edilmiş riskler üzerine çalışan Beck, modern toplumların, beklenmedik teknolojik ve çevresel risklerle karşı karşıya kaldığı yeni bir döneme adım attığını belirtmiştir. Özellikle depremler, Beck’in belirttiği riskler arasında, yıkımlara sebep olan ve insan yaşamı üzerinde olumsuz etkilere yol açmış

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felaketlerden biridir. Bu durum sinema sektörünün dikkatini çekmiş ve deprem temalı filmler beyaz perdeye yansımıştır. Bu çalışmanın amacı deprem temalı “San Andreas Fayı” filminin Ulrich Beck’in risk toplumu kuramı ve Barthes’in göstergebilim yöntemi kullanılarak analiz etmektir. Filmdeki depremden kaynaklı, risk ve bunların toplumsal sonuçları hakkında, kullanılan imgeler, mekânlar ve çağrışımlar üzerinden gösteren, gösterilen ve göstergeler vasıtasıyla analizler yapılmıştır. Sonuç olarak, depremlerin doğal riskler olduğu ancak insan eliyle tetiklenebileceği ve yerleşim yerlerinde büyük yıkımlara neden olabileceği, ayrıca depremin maddi kayıplara, kitlesel ölümlere, büyük göçlere ve toplumsal değişimlere yol açacak riskler içerdiği yönünde kanıtlara ulaşılmıştır.

Anahtar Sözcükler: Deprem, risk toplumu, göstergebilim, Ulrich Beck, Roland Barthes.

1. Introduction

Time to time, people resort to a mystical system that blends magic, sorcery and religious beliefs as one of the most important defense mechanisms against risks and dangers originating from the natural and social environment. People believed that they could control the world full of threats thanks to these mysterious powers. However, beyond these efforts, there was a perception of fate that was accepted as inevitable and believed to be in the hands of supernatural beings. In the Western world, with the transition to rational thought, there was a transition from this fatalism to a perception of risk that could be managed by human hands (Yıldırım, 2014, p. 75-85). The roots of the concept of ‘risk’ date back to the sixteenth and seventeenth centuries, and the idea was first expressed by European explorers traveling around the world (Lupton, 1999, p. 5). It has been stated that the word risk first came into English from Spanish and Portuguese, meaning “to sail into unknown waters”, and then was used as a banking term in the field of banking and investment (Bayhan, 2002, p. 189). Initially, it was considered a natural phenomenon and human responsibility, or mistakes were not taken into account. Over time, the concept of risk spread to the finance and investment sectors, turning into a perspective that evaluated the possible outcomes of investment decisions of creditors and debtors, and eventually acquired a wide range of meanings that included situations of uncertainty. Giddens (2000, p. 36), while addressing the issue of risk, states that there is no understanding of risk in traditional societies and that risk is the driving force of societies that want to shape their own future and are open to change, rather than leaving their fate to religion, customs or the whims of nature. In addition, social risk is considered as a paradigm in which there is a functional interaction between social reflexive and reflexive modernization. This paradigm provides a basic framework for understanding the relationship between social and risk (Kovacevic and Kovacevic, 2017, p. 10).

The concept of risk has a history as deep-rooted as humanity. However, it can be said that there is a significant difference between its meaning in past ages and its current usage, both in terms of meaning and context. Today, the concept of risk refers not only to possible dangers, fears and problems that may arise from them, but also to situations involving uncertainty (Bauman, 2019; Delibaş, 2017; Hu, Du & Tian, 2023). ‘Risk’ has been used throughout history to describe the dangers that people may face and the anxiety they feel in the face of these situations. The risks we face today are not threats specific to the present. They are both connected to the past and the present, as well as to what is likely to happen in the future. In addition, while in the past risk referred only to natural events such as earthquakes, floods,

tsunamis, hurricanes and volcanoes, with Beck's concept of risk society it began to include manufactured risks (Beck, 2011, p. 121-123; Marshall, 1999, p. 169-170). Earthquake is a natural risk. However, experiments conducted by people with heavy weapons on fault lines or in nearby areas, loaded explosives used in various studies, exercises or wars conducted with heavy bombs at sea, and continuous withdrawal of underground waters for agricultural lands can cause movement in fault lines and pave the way for an earthquake. Therefore, risk can include threats to the future, such as earthquakes, as well as social structures based on the past or present, as a response to what human beings have done to nature. A mindset that focuses on the future foresees the dangers and risks that may occur in the future and tries to prevent them or at least minimize their damage (Giddens, 2000, p. 37-38). As a result, the concept of risk was placed on a scientific basis and risk analyses were made possible through statistical calculations, thus giving rise to a new sector, 'insurance companies' (Lupton 1999, p. 7). With insurance companies, there is now a human security system against earthquakes, earthquake insurance. In many countries, these insurances have been made compulsory. Thus, the world, whose future was unpredictable, uncertain and seemingly left to the mercy of fate, has gained a controllable and manageable structure. The basis of this controllable world is the elimination and calculation of risks (Giddens & Griffiths, 2006).

Modern societies face new challenges in managing both man-made and natural risks, and the combination of these risks is transforming societies' perception of risk and the strategies they develop against it. Beck (1999) argues in his theory of risk society that the boundary between manufactured and natural risks is becoming increasingly blurred. Because people can cause natural risks to emerge through their own actions. For example, the use of heavy weapons that can cause seismic movements of fault lines, exercises carried out at sea, or the withdrawal of underground waters can cause earthquakes. Therefore, earthquakes, which affect people's lives and can cause great financial losses, migrations, social changes and traumas, have always remained on the agenda and have become a social as well as a physical issue that attracts the attention of the whole society. The earthquake issue has also attracted the attention of the cinema sector and disaster-focused films have been shot. The reason for making the films was to prepare and warn the society against earthquakes, which are one of the most important risks. One of these films, "San Andreas", released in 2015, is seen to deal with the subject of earthquakes, which cause problems in society and result in destruction on earth. The purpose of this study is to analyze the film "San Andreas", which is about earthquakes within the scope of natural risk, in the context of Ulrich Beck's social risk theory and Barthes' semiotic method. In this qualitatively designed study, indicators related to earthquake, one of the risks, were collected from the film and were analyzed and interpreted according to Barthes' semiotic principles.

2. Methodology

This research embraces qualitative research design, and it was designed and conducted in a that manner. The research was shaped within the framework of Barthes' semiotic method. In this context, images about the earthquake in the film "San Andreas" were selected and used in the context of theory. The earthquake-related scenes in the film are semiotic in terms of risk society theory; are tabulated as signifier, signified and sign. Within the framework of the study, the semiotic method, which is the method of Roland Barthes, was used. Ulrich Beck's risk society theory was used when interpreting the images obtained in the film. In analyzes based on

semiotics, the aim of the data gathered and interpreted according to predetermined theoretical frameworks is to make an orderly and analytical presentation. For this purpose, the obtained data is first presented in a regular format, this information is then processed around selected variables to obtain results. (Neuman, 2020; Rıfat, 2009; Yıldırım & Şimşek, 2011, p. 224). In this analysis, the 2015 film named “San Andreas” will be examined under the themes of social risk theory and earthquake and will be evaluated and associated with Ulrich Beck’s theoretical concepts. This action, adventure and thriller movie, which is the subject of the research, will be analyzed with Roland Barthes’ semiotics method as an example with its earthquake-related scenes. Semiotics decipher the layers of meaning created by society and perform linguistic analysis by analyzing the relationships between symbols (Barthes, 1979, p. 7). In visual and structural analyses, the semiotic method, which offers an alternative approach to scientific methods, is preferred more often than other methods because this method provides a perspective beyond scientific approaches (Karaca, 2009, p. 299-301). In this research, an in-depth analysis of the earthquake and its effects on society will be made, starting from the social risk perspective. This study, equipped with Roland Barthes’s semiotic approach, will enable the analysis of the narrative in the film through the relationship of signifier-signified-sign, and when viewed through the prism of social risk theory, it will be revealed what kind of system the signs and myths in the film form. It will be among the findings of this study that the earthquake and risk themes in the movie can be understood more clearly thanks to this semiotics.

2.1. Research Design

The film, which is the subject of the study, was examined within the framework of risk society theory through semiotics, which is Roland Barthes’ approach. Especially with technological advances, new visuals and therefore new worlds of meaning have been created. To understand these new contents created with signs, semiotics provide important data on the point of understanding the integrity of the systems and the meanings formed as a result of analyzing which images they are. In this research, a qualitative study was carried out benefiting from the approaches of thinkers who contributed to the semiotic method. Ulrich Beck’s risk society theory was used when interpreting the obtained indicators. This model aims to provide a deeper understanding of the visuals and risk themes in the film in a social context. Ethics committee approval is not required for the study.

2.2. Research Materials

Movie called “San Andreas”, which was released in 2015 and was directed by Brad Peyton is the material of the conducted research. The film used in the study was shot in 114 minutes. The work to be done includes scenes containing subtext messages that are intended to be given to the audience using the semiotic method in these 114 minutes. Scenes related to the earthquake and risk society targeted in the study are given as a table in accordance with semiotics.

2.3. Data Analysis

In the study, the images in the movie “San Andreas”, the language used, intonation, facial expressions, gestures and the destruction caused by the earthquake and its physical and social effects were selected and analyzed using the semiotic method. In these analyzes based on semiotics; criteria suitable for Beck’s social risk theory were determined. These criteria obtained from the visuals were analyzed in accordance with Barthes’ semiotic analysis scheme. The aim of the data determined in advance with the semiotic approach and compiled and interpreted according to theoretical frameworks is to make an orderly and analytical presentation.



Image 1: Poster of “San Andreas”

2.4. Film Summary

The story of the film opens with a young woman stranded on the edge of a cliff after a tragic traffic accident. Ray, the character played by Dwayne Johnson, is an experienced expert in aviation and firefighting. A university professor gives a seminar explaining that the region connecting Nevada and California is located on an active fault line and therefore has a high earthquake risk. Another academician states that Nevada has experienced many mild earthquakes in recent days. These two experts are on their way to a dam to make more detailed examinations and test a new earthquake prediction tool. However, an earthquake measuring over 7 on the Richter scale occurs, and the professor who tries to save a child loses his life. Meanwhile, in California, fear and chaos prevail. While Ray supports the rescue efforts with his helicopter, his ex-wife Emma calls him and asks for help. Ray first tries to save his ex-wife and then finds his daughter. Ray and Emma, who are looking for their daughter in the dense crowd, are in a difficult situation when the helicopter runs out of fuel during their search, and they crash. While the people of California are in panic, on the verge of a new disaster, another earthquake hits, this time causing a huge tsunami. While the giant waves threatening the city drag people to high points, those who cannot escape remain under water.

3. Findings and Discussion



Image 2: Broadcast to Warn Society About Earthquake Risk

Table 1: Semiotic Analysis According to Image 2

Sign	Signifier	Signified
Woman and man	Emergency broadcast	Raising the awareness of the society about the natural risk of earthquake through media

Table 1 shows two people broadcasting to warn the public about earthquakes. The aim here is to increase public awareness of the earthquake risk itself and the existence of this risk. Sign; woman and man. Signifier; emergency broadcast is the concrete tool used to increase this awareness. These broadcasts made through the media are made in order to convey the information and recommendations of earthquake experts to a wide audience. The signified is the deep meaning behind this broadcast; public safety, earthquake preparation and increasing awareness on this issue. The aim of the broadcast is to raise general awareness about seismic hazards by addressing all segments of society. The woman and man in Image 1, as the pillars of society, take on leading roles in this enlightenment process. Their active participation and feedback shape the general approach of society and the strategies to be developed against earthquakes. The widespread dissemination of seismology experts' knowledge increases society's knowledge and preparedness on this issue. Thus, it is aimed to minimize the damage and prevent human loss during a natural disaster. In seismic alarm situations, the relationship between alarm broadcasts and earthquake risk perception plays a vital role in ensuring the safety of society and minimizing the damage in the event of a possible disaster. This connection makes it easier for society to understand what kind of attitude it should adopt against seismic hazards and the possible consequences of such natural disasters. The media plays a key role in this process, becoming an effective mechanism to raise earthquake awareness and enlighten society.



Image 3: Lecture On Preventing Earthquake Risk

Table 2: Semiotic Analysis According to Image 3

Sign	Signifier	Signified
Teacher and students	Lecture	Trying to prevent earthquake risk and raise awareness by explaining to students

Table 2 shows a class having a lecture to inform students about earthquakes. The aim here is to increase students' awareness of the earthquake risk itself and the existence of this risk. Sign; teacher and students. Signifier is the lecture; it is a concrete tool to raise awareness. The lectures are helpful for any information to have a more widespread audience. Signified is the deep meaning behind this course; public safety, earthquake preparation and increasing awareness on this subject starting from students. Such training aims to raise general awareness about seismic hazards by addressing various segments of society. Students, as the pillars of the social structure, take on leading roles in this enlightenment process. Their active participation and feedback shape the general approach of society and the strategies to be developed against shocks. If it is accepted that risk and danger are inevitable in modern society, where we can constantly encounter various types of risks, it can be concluded that being prepared for these risks in advance is equivalent to success (Demuth, 2001, p. 3). Dissemination of the knowledge of earthquake experts increases the knowledge and preparedness of the society in this field. In this way, it is aimed to minimize the damage and prevent human loss in the event of a natural disaster. In the case of seismic warnings, the connection between education (lectures) and awareness (earthquake risk awareness) plays a vital role in ensuring the safety of the society and minimizing the damage in the event of a possible disaster. This connection makes it easier for society to understand what kind of attitude it should adopt against seismic hazards and the possible consequences of such natural disasters. Every member of society taking responsibility for earthquake preparation, which is a natural risk, and being a part of the information will allow more people to save their lives. Because earthquakes carry a natural risk. In fact, minimizing this risk is in the hands of society itself.

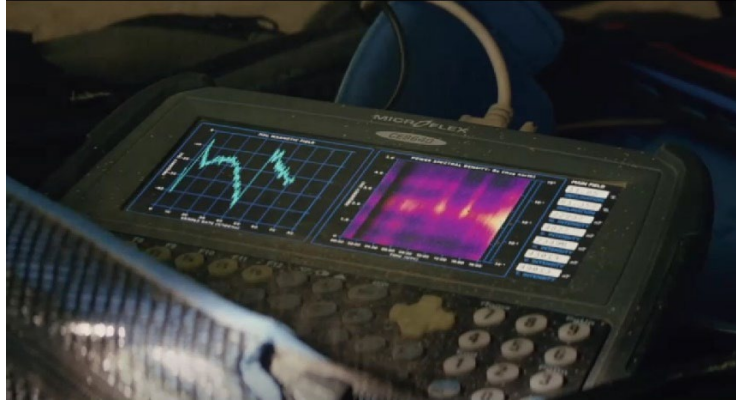


Image 4: Earthquake Detection Device

Table 3: Semiotic Analysis According to Image 4

Sign	Signifier	Signified
Device with buttons, wires, and screen	Earthquake detection device	Studies carried out against natural risks.

Table 3 shows a tool developed to inform society about earthquakes. The aim here is to increase public awareness of the earthquake risk itself and the existence of this risk. Sign; A device with buttons, cables and a screen. The signifier, that is, the device that detects an earthquake in advance, is a concrete tool used to increase this awareness. Such devices transform the in-depth knowledge of seismologists into a tangible form, making it easier to take preventive measures. The signified is the emphasis on research conducted for the welfare of society, preparation for earthquakes and measures taken in this area, and the devices that are the products of these studies. These devices aim to raise general awareness of seismic risks. Scientists, as the fundamental building blocks of society, play key roles in this information process. Their participation and feedback determine the general approach of society and the measures to be taken against earthquakes. Detecting earthquakes in advance reinforces society's preparedness in this regard. In this way, it is aimed to minimize the damage and prevent loss of life in the event of a natural disaster. Predicting earthquakes in advance is of vital importance to ensure the safety of society and to minimize the damage in the event of a possible disaster. This relationship allows society to understand how to behave against seismic risks and the possible effects of such a natural disaster. Such devices developed by scientists play an important role in this process, becoming an effective tool for increasing earthquake awareness and informing society.



Image 5: High Buildings Increase the Risk of Death in an Earthquake

Table 4: Semiotic Analysis According to Image 5

Sign	Signifier	Signified
City	High buildings	Manufactured risks that will cause more harm to people in the event of an earthquake.

Table 4 shows the tall buildings built by people. It is shown here that high buildings increase the risk of loss of life after an earthquake. The sign is the city and buildings. The signifier is the buildings that are built high. Such buildings increase the risk of loss of life after an earthquake. The signified is that high buildings should not be built for the safety of the society, earthquake preparation and precautions to be taken in this regard. Earthquakes seen in the world are natural risks according to the social risk theory. When we look at the history of societies, earthquakes are a risk that people know about but have difficulty taking precautions against. When we look at their formation, earthquakes, which are natural risks, and the places they affect, and the results they bring, we see earthquakes, which are natural risks, have turned into manufactured risks. The main reason for this is the high buildings that societies have built with their own hands. These structures, which meet people's shelter needs, are among the main factors that lead to an increase in the loss of lives in times of earthquakes.



Image 6: Collapsed Buildings, Dead Lives

Table 5: Semiotic Analysis According to Image 6

Sign	Signifier	Signified
People and collapsed buildings	High buildings ruined by earthquake	In case of an earthquake, people and the city will be harmed more because of the high buildings and there are many manufactured risks even after the earthquake.

Table 5 shows the ruins that resulted from the collapse of high-rise buildings built by humans after an earthquake. It is shown here that high buildings increase the risk of loss of life in the event of an earthquake. The sign is people and ruined buildings. The signifier is shown is that tall buildings collapse with an earthquake. Such buildings increase the risk of loss of life in the event of an earthquake. The signified is the risk of people and the city being harmed more by tall buildings in the event of an earthquake. These high-rise buildings are giant concrete and steel forests that define the skyline of modern cities and extend into the sky. Although these structures were built to meet the needs of people for shelter, work and social interaction, they are among the increasing risk factors for human life after earthquakes. Unfortunately, these buildings can become elements that increase the loss of life in the event of an earthquake. Prioritizing safety over height in the design of structures is a solid step towards reducing damage and protecting life in the face of disasters. Earthquakes are one of the most devastating natural disasters on earth and are a fundamental factor to consider in the construction of tall buildings. Factors such as the intensity of an earthquake, the depth of the ground and its

duration determine how durable a structure will be. In the design of high-rise buildings, features such as resistance to seismic effects, flexibility and energy absorption should be taken into account. These features reduce the risk of collapse of structures in the event of an earthquake and thus minimize loss of life. Avoiding the construction of high-rise buildings is of vital importance in ensuring the safety of society and minimizing damage in the event of a disaster. This approach makes it easier for society to understand how to respond to natural disasters such as earthquakes and the possible consequences of such events. Each individual plays an important role in this information sharing chain, and being prepared for earthquakes and refraining from building tall buildings can help save the lives of more members of society. Each individual's role in this information sharing chain can help save the lives of more members of society by being prepared for earthquakes and refraining from building tall buildings. With the construction of high-rise buildings, natural risk becomes more devastating by combining with a manufactured risk. This can be prevented by taking the necessary precautions for the safety of society.



Image 7: Fault Line Divides the Road into Two

Table 6: Semiotic Analysis According to Image 7

Sign	Signifier	Signified
Earth's surface cracking	Fault rupture with earthquake	Earthquake is a natural risk, building a road on a fault line is a manufactured risk. The film shows the possible result of building a road on a fault line

Table 6 shows the cracks formed in the earth as a result of the fault line breaking. Here it is shown that the construction of roads and buildings on the fault line increases the risk of loss of life. The sign is the cracking of the earth. The signifier, that is, the formation of cracks as a result of the fault line breaking with the earthquake. Roads and buildings built on such fault lines increase the risk of loss of life during and after the earthquake and also cause economic losses to the countries. The signified is that roads and buildings should not be built on fault lines to minimize the risk of earthquakes. This natural risk is combined with the manufactured risk, with buildings and roads constructed on fault lines that trigger the natural risk of earthquakes. This further increases social risk. In fact, after earthquakes, buildings and roads in cities built on fault lines pose a serious problem that prevents aid teams from intervening quickly and effectively. The durability of these roads plays a key role in delivering vital aid to the city during a disaster. Therefore, in urban planning and infrastructure development processes, it is important to stay away from fault lines to reduce earthquake risk and ensure public safety. Buildings built in areas close to fault lines can cause great damage in the event of an earthquake, making it difficult for aid teams to reach the scene. This can increase loss of life and prolong the community's recovery process. Considering the risk of earthquakes, urban planners should

construct buildings and roads in safer areas, away from fault lines, and strengthen existing structures. Having solid roads allows for the rapid transportation of emergency vehicles, medical aid, and basic supplies. This allows for a rapid recovery and return to normal life after a disaster. In addition, cities that are not built on fault lines are less likely to be damaged by earthquakes, which increases the overall resilience of society. This approach increases the resilience of society to disasters and speeds up the recovery process after a disaster.



Image 8: Tsunami After Earthquake

Table 7: Semiotic Analysis According to Image 8

Sign	Signifier	Signified
City and swollen sea	Giant waves caused by earthquakes.	Tsunamis caused by earthquakes pose risks to settlements located on the coast. These risks can increase economic and life losses.

Table 7 shows the moment when a tsunami is triggered by an earthquake and destroys the city. Here it is shown that the earthquake, combined with a tsunami, increases the risk of loss of life even more. The sign is the city and the swollen sea. The signifier is the giant waves that occur as a result of an earthquake. In the event of an earthquake, the risk of cities on the ocean being destroyed by a tsunami increases even more. The signified is that the loss of life and economic risks increase even more with the tsunami that occurs as a result of an earthquake. Cities are of great importance to humanity as shelters and centers of social interaction; however, the vulnerability of these settlements to natural disasters such as earthquakes and subsequent tsunamis can lead to serious loss of life. The earthquake and tsunami disaster of January 26, 2005, which went down in history as the Southeast Asia Earthquake and Tsunami disaster in the early 21st century, is one of the examples of the combination of natural risk with manufactured risk. The effects of the tsunami were much greater than the effects of the earthquake. The reason why the tsunami was so effective was the wrong choice of settlement. The effects of policies such as urbanization, wrong choice of settlement, excessive population growth and tourism investments made on the coastline have been understood in the catastrophic dimensions of such natural events (Gündüz, 2008, p. 29). Tsunamis resulting from earthquakes can flood cities, threatening lives and infrastructure. Therefore, precautions taken before a disaster are vital to minimize the damage caused by such disasters and protect the population. Urban planners and engineers should use modern technologies and construction methods to increase the durability of structures in earthquake-prone areas.



Image 9: People Trying to Save Their Lives After the Earthquake

Table 8: Semiotic Analysis According to Image 9

Sign	Signifier	Signified
People	People running away to survive	As a result of the earthquake, people fled and migrated from the city in masses. The manufactured risk is shown by the fact that no precautions were taken beforehand, and evacuation areas were created for the safe evacuation of the city.

Table 8 shows the moment when people tried to save their lives as a result of the earthquake and fled the city. This explains how people were forced to migrate after the earthquake. The sign is people. The signifier is the people running away to survive. The signified is a group of people who fled the city to save their lives as a result of the earthquake. Migration, which causes people to be forced to leave their homes, is a phenomenon that affects people's psychology and society in general (Güvenç, 1996, p. 21). This effective phenomenon can occur especially immediately after earthquakes that pose great risks to individuals and society. Because in general, houses that collapse immediately after an earthquake create a shelter problem for people. Cities are vital to meeting people's shelter needs; however, the regions where these metropolises are built increase the risk of death as a result of earthquakes. After such events, people tend to migrate in order to save their lives. These sudden migrations associated with disasters occur in the forms of escape, evacuation, displacement, resettlement and forced migration (Oliver-Smith, 2006). Before such disasters occur, measures taken to minimize risks can be much more beneficial. In this way, it is aimed to minimize damage and prevent human loss during natural disasters. Measures to be taken to ensure the safety of cities and to minimize damage in the event of a possible disaster are of great importance. If such measures are not taken, mass migration waves of people fleeing in panic after an earthquake may occur. This situation provides an understanding of how society should behave towards earthquake risks and the possible effects of such natural disasters. Every member of society has a critical role in this flow of information.



Image 10: Looting After the Earthquake

Table 9: Semiotic Analysis According to Image 10

Sign	Signifier	Signified
Human, boxed televisions	Human placing televisions in a car	Survivors looting stores after earthquake Lack of security measures Manufactured risk

Table 9 shows the moment when people who saved their lives as a result of the earthquake looted the stores. The chaotic environment that occurred as a result of the earthquake is described here. The sign is the person and the boxed televisions. The signifier is the person who placed the televisions in the car. The signified is the people who survived the earthquake looting the stores. This situation can be considered within the scope of manufactured risk among the risk types. Earthquakes, which are natural risks, can have worse consequences when they are included in the scope of manufactured risk. In fact, the panic experienced after earthquakes can push societies into chaotic situations and this chaos can disrupt social order as well as economic losses. Precautions taken before a disaster can prevent such events and minimize the economic damage of natural disasters. Security measures in cities are vital to minimizing the damage during a disaster. If these measures are insufficient, situations such as escape and looting after an earthquake can cause serious damage to the economy. Therefore, society needs to be aware and prepared for earthquake risks. Every individual should contribute to earthquake preparation by taking their place in the information network and try to minimize economic risks with the measures to be taken. In addition to all these, another important issue is the images of looting and chaos that occurred after the earthquake. Among the social problems that emerged after earthquakes are the increase in various crimes and looting (Fırat, 2022, p. 31). Chaos and looting after an earthquake not only create immediate disorder but can also cause long-term economic damage. This damage slows down the recovery process of society and deepens the effects of the disaster. Therefore, pre-earthquake education and infrastructure investments play a critical role in preventing such damage and increasing the resilience of society to such disasters. Risk is a possibility that may occur in the future. Therefore, by talking about risk today, we can protect ourselves from future damage (Boyne, 2001, p. 57-58).



Image 11: The Destroyed and Abandoned City After the Earthquake

Table 10: Semiotic Analysis According to Image 11

Sign	Signifier	Signified
Human, city, ruin	People watching the ruined city	The city, which was destroyed and ruined as a result of the destructive power of the earthquake and where many lives were lost, may be wasted all the efforts of humanity when natural and manufactured risks are combined.

Table 10 shows the ruined picture that resulted from the collapse of high-rise buildings built by people after the earthquake. Here, it is shown that the earthquake was extremely destructive. The sign is the human and the ruined city. The signifier is the human watching the ruined city. The risk of loss of life increases due to the high destructive power of the earthquake. The signified is the city that was destroyed and ruined as a result of the destructive power of the earthquake and the people abandoned it. Earthquakes are natural events that pose great risks and serious threats to society. However, people can manufacture risks through factors such as high-rise buildings and settlements built on fault lines. Thus, the magnitude of the destruction increases the loss of life, especially in areas where high-rise buildings are located. Avoiding the construction of these structures can reduce risks during an earthquake and thus minimize damage and loss of life. Preferring lower-rise buildings is an important step in reducing the destructive effects of an earthquake. Everyone should take responsibility for avoiding such structural risks as part of earthquake awareness and contribute to the safety of society through information sharing. This approach helps to maintain social stability by limiting the potential damage of an earthquake. The destructive power of an earthquake can cause cities to collapse and countless lives to be lost. Therefore, building earthquake-resistant structures and raising public awareness are vital to reducing the effects of disasters. All of these are part of disaster management. Disaster management is important in such risks affecting society. In large-scale disasters, a large number of resources and support from different institutions are required. Health units, security personnel, firefighters, and units that support the peace of society are a few of them. It is responsible for making the best use of the support and opportunities that these units, which manage and plan disasters, will provide in times of disaster, and to keep societies more prepared for disasters. The work and training of all these units regarding disasters should also be the responsibility of those working in disaster management (Schneid & Collins, 2001, p. 39-40).

4. Results

The film “San Andreas” is a thrilling, destructive film set at the intersection of earthquakes and social hazards. The film centers on a fictionalized magnitude 9 earthquake in California triggered by a rupture in the San Andreas Fault Line and the tsunami waves that

follow. The earthquake discussed in the film causes the destruction of metropolises, serious chaos and the upheaval of social order; the consequences of a disaster that could occur in reality are equally devastating. In a real earthquake event, infrastructure damage, economic losses, human losses and social wounds are inevitable. Examining the film “San Andreas” in the context of social risks offers important lessons in disaster preparedness and emergency management. The film demonstrates in an exaggerated way how individuals and communities are unprepared for disasters and the effects this has on human life. This highlights the importance of better preparation for disasters in the real world and increasing the resilience of societies. The earthquake scenes in the “San Andreas” production clearly reveal how vulnerable human-made structures and society are to such large-scale natural disasters. However, the “San Andreas” film brings an action and disaster scenario to the stage in line with Ulrich Beck’s “Risk Society” theory. Beck argues that the advancement of technology and science minimizes risks while also creating new ones. In the film, pre-earthquake warning mechanisms and building technologies embody this dual effect. At the moment when an earthquake occurs, the inadequacy and unexpected results of these technologies become apparent. Beck states in his risk society theory that the development of technology has revealed new dangers. The film also emphasizes that high-risk buildings built thanks to technology have become threats to people. Beck argues that risk management is an integral element of contemporary societies and that this process requires sharing responsibility. In the film, the search and rescue activities and emergency management after the earthquake demonstrate how this responsibility is distributed and the roles of different institutions. Beck argues that modern societies are forced to confront risks beyond their control. The film’s characters engage in an uncontrolled struggle to cope with the destruction brought by the earthquake, reflecting Beck’s thesis of uncontrollable risks. Beck also states that in risk societies, individuals and communities constantly question themselves and their environment, and that evolution and adaptation occur because of this questioning. When the characters in the film face an earthquake, they quickly adapt and develop strategies in order to survive, which is consistent with Beck’s understanding of reflexivity. The characters in the film also demonstrate effective risk management against earthquakes. Dr. Lawrence Hayes, a seismologist and earthquake scientist, predicts the approaching earthquake and warns the public. Dr. Hayes’ research and warnings play a vital role in the risk management in the film.

In conclusion, the film “San Andreas” brings to the stage different dimensions of Ulrich Beck’s risk society theory, while at the same time highlighting the sensitivity of contemporary societies to large-scale natural disasters and the need to create a stronger social structure against such situations. In line with Beck’s thoughts, the film points out that risks are not only the result of technological and industrial developments, but also that society must constantly re-evaluate and adapt. Although it presents a scenario different from real earthquake events, the film has the potential to raise awareness on disaster risk management and the development of public awareness.

Research and publication ethics statement: This article is based on the film San Andreas (2015). This article was planned and conducted as completely original research and submitted to the relevant journal after the results were reported. The research has not been presented at any symposium, congress, etc. or sent to another journal for evaluation.

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