Batik, Space and Memory: Reading Visuality and Collective Memory in Batik Canting Merapi

Mutia Dewi, Universitas Islam Indonesia, Indonesia Ali Minanto, Islam Indonesia, Indonesia Nadia Wasta Utami, Islam Indonesia, Indonesia Ida Nuraeni Dewi, Islam Indonesia, Indonesia Puji Hariyanti, Islam Indonesia, Indonesia

The Asian Conference on Media, Communication & Film 2019 Official Conference Proceedings

Abstract

The Merapi Volcano eruption in 2010 was not only caused 377 people death, but also changed the status of the mountain Merapi area into a Disaster Prone Zone (Kawasan Rawan Bencana) III, a zone considered as uninhabitable for humans. For reasons of safety, the people in the slopes of Merapi were relocated to shelters (temporary and permanent housing), a kind of housing for survivors of the Merapi eruption. This research wants to answer the question, "how do survivors women of the Merapi eruption in Pager Jurang produce new social spaces and how they treat their collective memory through the Canting Merapi batik motif (?) This research uses a semiotic visual approach, production of space, and collective memory studies. The semiotic Peircean approach is used to see the visual representation of the Canting Merapi batik motif, both in the form of icons, indices, and symbols. This research produced several findings. There are several types of Canting Merapi batik motifs that represent the collective memory of survivors women of the Merapi eruption: plants (coffee beans, Coffee leaves, Kantong Semar, Parijoto leaves), animals (dragonflies, butterflies, even cows). The batik motifs do not only present mere visual signs. However, through the motives contained in batik, survivors women of the Merapi eruption can bring back their imagination about Merapi as the living space (homeland) where they come from and at the same time they try to adapt to the new living space (permanent housing). The visual representation is also used by survivors women to keep their collective memory of Merapi and to present it continuously in different spaces.

Keywords: Merapi, Batik, Visual Semiotics, Collective Memory, production of Space, Survivors Women



The International Academic Forum www.iafor.org

Introduction

The eruption of Mount Merapi in 2010 caused 377 deaths (Rahman, 2015), thousands of refugees, forests and agricultural land destroyed. Since then, the status of the Merapi slope area has become a disaster-prone area (KRB). This area is labeled as a danger zone (red zone) and everyone is not permitted to move there. Residents of slopes of Merapi who survived the eruption disaster were relocated to a safer area known as *Hunian Tetap* (permanent residence). There are several permanent residences and one of them is Pagerjurang permanent residence. Pagerjurang is a 60,000 m2 plot of land, located 9.70 km from the peak of Merapi and accommodating 301 housing units. This paper wants to see the dynamics of the lives of the survivors of the Merapi disaster who currently live in Pagerjurang residence. They continue their lives by farming and raising animals, the women make a batik routinely. The batik they created not only presents a visual aesthetic, but also hints at messages about Merapi, their hometown that always lives in their collective memory. This research wants to answer the question: "how is the collective memory of Merapi residents treated and represented through Batik Canting Merapi?" and "How do Merapi residents produce new space after the 2010 Merapi eruption?"

Theories and Methods

This research uses several theories and methods. The Peircean approach will be used to see the semiotic aspects of the visuality of Canting Merapi's batik motifs. This visual text analysis will be linked to the collective memory of the women of Pagapurang residence about Merapi as a living space. This research also uses observation methods and in-depth interviews with a number of women who live in Pagerjurang's permanent residence, Merapi.

Semiotics Analysis: Peircean Approach

This research uses semiotics analysis with Peircean Model. Peirce offered a triadic (three-part) model consisting of: **The representamen**: the form which the sign takes (not necessarily material, though usually interpreted as such) -called by some theorists the sign "vehicle"; **An Interpretant**: not an interpreter but rather the sense made of the sign; **An Object:** something beyond the sign to which it referes (a referent). Peirce (1931-1958, 2.228) said:

"A sign... (in the form of a representation) is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the interpretant of the first sign. The sign stands for something, its object. It stands for the object, not in all respects, but in reference to a sort of idea, which I have sometimes called the ground of the representament."

Charles Sanders Peirce (1839-1914), an American philosopher and logician, introduced the concept of trichotomy in semiotics: sign / representamen, object, interpretant. Pierce distinguishes signs in three trichotomies: Firtness, secondness, Thirdness. Peirce's representamen produced the first trichotomy (qualisign, sinsign, legisign); second trichotomy (object): icon (Resemblance), index (pointing), symbol

(law); third trichotomy (interpretant): Rheme, Dicent, Argument. This research will use trichotomy in objects. Peirce introduces The three of modes of sign:

- a. **Symbol/symbolic**: a mode in which the signifier does not resemble the signified but which is fundamentally arbitrary or purely conventional so that this relationship must be agreed upon and learned: e.g. language in general (plus specific languages, alphabetical letters, punctuation marks, words, phrases and sentences), numbers, morse code, traffic lights, national flags.
- b. **Icon/Iconic**: a mode in which the signifier is perceived as resembling or imitating the signified (recognizably looking, sounding, feeling,tasting or smelling like it) being similar in possessing some of its qualities: e.g. a portrait, a cartoon, a scale model, onomatopoeia, metaphors, realistic sounds in 'programme music', sound effects in radio drama, a dubbed film soundtrack, imitative gestures. Ikon tidak hanya berupa citra-citra visual seperti dalam foto atau lukisan, tapi juga ekspresi lain seperti grafik, skema, peta geografis, persamaan matematis, dan metafora.
- c. **Index/indexical**: a mode in which the signifier is not arbitrary but is directly connected in some way (physically or causally) to the signified (regardless of intention) this link can be observed or inferred: e.g. 'natural signs' (smoke, thunder, footprints, echoes, non-synthetic odours and flavours), medical symptoms (pain, a rash, pulse-rate), measuring instruments (weathercock, thermometer, clock, spirit-level), 'signals' (a knock on the door, a phone ringing), pointers (a pointing 'index' finger, a directional signpost), recordings (a photograph, a film, video or television shot, an audio-recorded voice), personal trademarks (handwriting, catch-phrases).

Collective Memory: Commemoration

Collective memory is often analogous to public opinion (Schwat: 9). Public opinion is an aggregation of individual opinions that become public opinions. Public opinion influences the way people think in collectivity. The disadvantage is that people become less confident because they are correlated with collective opinion. Collective memory, as an aggregation of public memories of past incidents, is also shaped by commemorative symbolism. As stated by Schwat:

"A useful analogy to collective memory is public opinion. Opinions, like memories, can only be held by individuals and can only be assessed by questioning individuals, but when these opinions are aggregated they assume new significance. Collective opinion affects the way the average person thinks about matters of the day. It renders individuals more or less confident in their *personal* opinions. Public opinion and collective memory alike affect elections, the morality of given lines of conduct, even the price of goods and services."

Collective memory, in certain contexts, requires communication as a way to commemorate through various mediums, such as the commemoration of writing through poetry; music compilation is in the form of national anthem, hymns, songs, signs; visual media such as sculpture, painting, photography, film, online video, television shows. commemoration can also be represented through monuments, including temples and ancient buildings to build and maintain the public's imagination.

Batik Canting Merapi as a form of visual work is used to represent signs that refer to certain events.

In the study of memory, the concept of commemoration is associated with efforts to preserve memories of the past. The past is presented sporadically through identification of street, cities, rivers, mountains. In some situations he appears as a ceremony to commemorate an event. Thus, a memory can be brought back and treated in a collective consciousness. This is where the commemoration has a tendency with history, although both hold significant differences. Sapir (1930: 492-93) says:

"The relations among history, commemoration, and collective memory can now be stated. History's goal is to rationalize the past; commemoration and its sites, to sanctify it. History makes the past an object of analysis; commemoration, an object of commitment. History is a system of "referential symbols" representing known facts and their sequence; commemoration is a system of "condensation symbols" (that simplifies events of the past and clarifies the moral sentiments they inspire.......History and commemoration are at once the sources, vehicles, and products of collective memory."

This paper wants to see the collective memory of Merapi which is re-presented by women in the Pagerjurang residence through batik motifs. Batik motifs made by them are not just for aesthetic orientation, but also inform an event and memories that they have passed and want to continue to be treated.

Spatial/social production

This view was based on the notion of triadic space from Henri Lafebvre: spatial practice, the representation of space (space of representation), and space representation (representational space). The concept refers to the practice of spatial dimension of practices and social relations. In it indicates the fabric of relationships in a network with various dimensions are interchangeable. Spatial practices also indicate ownership of space (physical) so that the spatial practices conceived as a living space (lived space); Representation of space refers to the space in terms of conceptualization relating to codes of knowledge. Space is interpreted through the process of defining a linguistic basis, such as maps, cartography, signs, information in the image, and the viewpoint of science to the space such as architecture, geography, spatial. Representation of space brings intellectual authority deemed competent to interpret the space so that space comes as something conceptualized (conceived space). While the representational space contains a symbolic dimension of space. Space is not only visually apparent, but it has another dimension beyond. Here, space is associated with imaginative dimension that connects the room with the symbols and meanings. Representation space into the dialectical relation between spatial practices and representations of space so stimulate diverse perceptions (perceived space). The link between spatial practices with the production of social space, Lafebvre said:

"(Social) space is a (social) product ... the space thus produced also serves as a tool of thought and of action; that in addition to being a means of production it is also a means of control, and hence of domination, of power; yet that, as such, it escapes on part from those who would make use of it. The social and political (state) forces which engendered this space now seek, but fail, to master it completely; the very agency that has forced spatial reality towards a

sort of uncontrollable autonomy now strives to run it into the ground, then shackle and enslave it." (1991, 26-27)

Merapi on Batik Canting Merapi

Moving from the slopes of Merapi to the Pagerjurang residence became a new experience for the ex-Merapi women. They had to start a new life that contrasts with their previous life on the slopes of Merapi. Various NGOs began to enter and introduce their empowerment programs. From this programs, the women began to recognize batik activities. The batik program was introduced by Center of Gender Studies (PSG) UII (Islamic University of Indonesia). Batik is possible for the women because it could be done on the sidelines of their main work as farmers and ranchers. Batik activities were usually carried out in the afternoon after the women return from the fields looking for grass for their livestock.

Batik is a typical Indonesian textile, especially Java. Batik was recognized as a masterpiece of Indonesian heritage by UNESCO on October 2, 2009. Batik developed in Indonesia since the era of the Majapahit Kingdom in the 13-16 century. At first, batik was only intended for the nobility and "priyayi" (tirto.id), but nowadays everybody can wear it. In addition to aesthetic considerations, batik is also known for its value content. Traditional batik is considered to represent an acculturation process between Javanese, Islamic, and Hindu cultures. Here, batik has a strong philosophical value and symbolic meaning. In its dynamics, batik is no longer a monopoly of the nobility, but can be produced and consumed by anyone with more innovative motives.

Making batik becomes a new experience for women who live in Pager Jurang Residence. At first, making batik became a new activity that was not interesting in their habit as farmers and ranchers. In its development, batik turned out not only to provide artistic experience (creating) and aesthetic experience (consuming visuality), but it became a moment to recall their memory of Merapi. Their memories of Merapi are represented through Merapi's unique flora and fauna motifs, such as Merapi coffee leaves, Merapi coffee beans, orchids, reeds, Pecutan trees, Semar Bags, dragonflies, butterflies, cows, etc. (Ngatinah, 2019).

Before practicing batik, the Pagerjurang women received training in sewing and making citizen newspapers (Koran Warga). But the two activities did not go well in the end. Making batik becomes a surefire choice even though at first it was lackluster. Making batik becomes an escapism for Pagerjurang women to head back to Merapi. The problematic of living in hunting is a little relieved when they can bring back their memories of Merapi. Merapi is described as a space that offers peace with all the natural beauty of the countryside. Commitment to batik, the women in Pagerjurang established the Canting Merapi and Serat Merapi batik communities. They were formed by the Cooperative Sri Kandi Merapi, guided by the Center for Gender Studies (PSG) UII (PSG UII, 2014). The batik activities they carry out are oriented to increase income economically while maintaining cultural values. In addition, through the batik group, women in Pagerjurang can also recall their memories and then represent them in the form of batik motifs. There are several steps that are carried out in making batik: nggirah, nyorek, nglowong, ngisen, nyolet or nyelup, mbironi, nglorot. Here are some Canting Merapi batik motifs:



a. Motif of Parang Rusak



b. Motif of Parang Lereng



c. Motif of Parang Kembang



d. Motif of Anggrek Merapi (Merapi Orchid)



e. Motif of *Kembang Kopi Lereng Merapi* (the flower of Merapi Slope Coffee)



f. Motif of Parijoto



g. Motif of Kupu-kupu (Butterfly)



h. Motif of *kupu-kupu*, *anggrek*, *dan batuan vulkanik* (combination of butterfly, orchid, and volcanic rock)

Even though some Merapi batik motifs tend to be mainstream, such as Parang Rusak, Parang Lereng, and Parang Kembang, and also Kopi Pecah (broken coffee), but there are motifs that are the mainstay of the Canting Merapi batik community. These motifs

represent Merapi, including flora, fauna, and other elements that are identical with Merapi, such as Parijoto plants, Merapi Orchids, Coffee Leaves, Coffee bean, Semar (a name of puppet figure) Bags; butterfly, insects, cows, even lava and volcanic rocks. The choice of motifs was not present arbitrarily, but was chosen by the Pagerjurang women to care for their memories of Merapi.

Coffee Aroma on Merapi Batik

One of the Canting Merapi batik motifs is Merapi coffee. Coffee not only represents Merapi's unique plants, but also hints at a memory as well as protests. The women who make batik at Pagerjurang settlement thought that Merapi coffee just a memory for them. In the past, they planted coffee on their land, harvested it, and processed it for themselves as a daily drink. Nowadays, they have to buy to just enjoy Merapi coffee. After the eruption of Merapi, Merapi coffee only grew in limited areas so that it affected the price. Merapi Coffee also tends to be a commodity for tourism. Their choice now is to consume instant coffee instead of Merapi coffee because the price is relatively cheaper.



Merapi Coffee is a typical plant that grows in the Merapi area. Merapi eruption in 2010 caused the coffee fields destroyed. After the eruption, there were only a few coffee fields that were still fertile enough to develop coffee plantations. As a result, the centers of coffee land are limited to a few areas and owned by a handful of farmers. Currently, Merapi coffee can be enjoyed at coffee shops in several areas, one of which is "Kopi Sumijo" (Sumijo Café). Sumijo Cafe is a shop owned by Sumijo which provides Merapi coffee. The coffee shop, which was established in 2012, is more for tourists who come to Merapi.

Historically, Merapi Coffee has existed since the Dutch colonial era. Because of its small size, this coffee is often referred to as Menir coffee. Although it has existed for quite a long time, Merapi coffee was only widely known by the public after the 2010 eruption. Intensive planting was carried out in 1984. In that year Robusta coffee was only planted. Only in 1992, the type of Arabica began to be developed. At that time, people chose to sell coffee in the form of raw beans. Merapi coffee in the form of packaging can be obtained at kiosks and coffee shops.

However, there is a dark side behind the popularity of Merapi coffee. The women in the pagerjurang have no easy access to Merapi coffee. They are no longer possible to grow coffee plants in their yard which is currently limited. Their lands on the slopes of Merapi are also not conducive enough to develop coffee cultivation. Representation of coffee into batik is a way for them to have a memory back with the Merapi coffee they had planted.

Coffee beans in Merapi batik motifs not only become icons, but represent certain symbols. As an icon, coffee is an important plant that grows in Merapi and as a symbol, Merapi coffee is also an indexical icon about the transformation of Merapi into a red zone area for residents. Even though this area is labeled as a red zone, it remains open as a tourism and mining area. For former Merapi residents, there is a severed relationship between them and Merapi coffee. Coffee which was originally grown on their land, now only grows in certain areas so that not everyone can have coffee land. Through coffee, we can see the unequal situation between a group of coffee plantation entrepreneurs on a large scale with small farmers in general.



The second interesting motif is the butterfly, orchid, and lava rock motif. This motif is interesting because there is a representation of lava stone which is very identical to Mount Merapi. In addition to lava rock, batik also features orchids and butterflies, animals that are often found in Merapi. The motifs in this batik are arranged hierarchically with lava rock at the bottom, then orchids, and flying butterflies. The three visual elements in the motif show harmonious unity at Merapi. That harmony shows the unity of life in Merapi that combines nature, plants, animals, and humans. This batik motif illustrates the life activities of residents on the slopes of Merapi who live with risk (living with the Risks) ((Smith and Petley, 2009; Kelman and Mather, 2008; UNISDR, 2004; Nagasaka, 2008). The principle of living together with danger shows that there is a relationship that is close between Merapi and the living things around it, for people who live with Merapi, Merapi is not just a mountain but is considered a Kingdom of Spirit (Nazaruddin,). In this context, Merapi represents the spiritual side

"This belief, Merapi as a sacred power and human as a profane dimension, is deeply rooted in the traditional beliefs about Mt. Merapi among local people. They believe that Merapi is not just a mountain, but also a kingdom of spirits,

with a palace in its crater. The peak of the volcano and its upper part is the place where the spirits live, while the lower slopes of the mountain are human habitation. They also believe that they should live in harmony with the spirits."

Visual elements of orchids in batik motifs bring their own memories for women about their life experiences with Merapi. Merapi orchids that previously grew wild in the forests around Merapi are now starting to decrease because the forest area was hit by hot clouds during the 2010 eruption. Orchids are not just icons represented on batik, but they represent feelings of loss experienced by women in Pagerjurang. Merapi eruption became a turning point in their lives. which can be attributed to the eruption of Merapi which is the turning point of their lives. Batik Canting Merapi becomes a medium, revealed by Pagerjurang women, about their memory and experiences of living with Merapi.

Memories about Merapi: Between Friends and Trauma

Merapi's eruption that occurred in 2010 not only buried villages, forests and agricultural lands of residents living on the slopes of Merapi, but also buried their memories of it. For them, Merapi is a friend where they enjoyed their childhood, playing, chatting, and working to find grass for livestock feed. Merapi eruption followed by the enactment of the status of KRB (Disaster-Prone Areas) III which refers to Law number 24 of 2007, makes the area on the Merapi slope area as a red zone, a restricted area for life activities (Minanto, 2018). This status practically excludes ex-Merapi residents to return to Merapi and live together again with the mountain. Currently they live in Huntap (permanent residence), a relocation area which is located quite far from the peak of Merapi. Even though they have lived in a new place, the memory of Merapi is still left in the minds of the women living in relocation dwellings. As the story of A who lives in the Pagerjurang huntap:

"We were born and grew up in Kaliadem Village. The location is about 4.7 km from the peak of Merapi. Our childhood was spent on the slopes of Merapi to play, look for grass, look for plants, even to shed our sadness and anger. On the slopes of Merapi, we found and recognize various plants that live there, such as Bangkongan wood, Telek Bajing, Ambat Aren, Parijoto (so toys, so scramble), Gronong, Serean, Ngganen, Mbilung, coffee, Semarbag, Jalumampang, Daun Tanganan, Pung Daun, Daun (the toy), so fighting), Gronong, Serean, Ngganen, Mbilung, coffee, Semarbag, Jalumampang, Daun Tanganan, Pung Daun, Daun Gorges, orchids, etc. And most of it is now only a memory! "

The women are survivors who inhabit permanent pagers (hunters) Pager Gorge since Merapi experienced a major eruption in 2010. Living in a new space, which is different from the original environment at Merapi, creates also new habits. They feel authentic curtur while living in the Kaliadem Merapi Village. Living in new settlements has many consequences: differences in the way social relations are related and also changes in spatial production. There is a contrasting situation between living on the slopes of Merapi and in huntap which looks more like housing. The sense of togetherness and mutual cooperation has begun to erode replaced with an attitude of life that is more likely to be individualistic. Living in a hunt also means compromising with the situation of living together in a limited area. A tells a story:

"Before, whenever there was a problem, I could go straight to the slopes of Merapi. I shouted as loud as possible. Now it is not possible to do it in the hunting complex. My screams can certainly disturb neighbors that are too close. Concern and togetherness have begun to disappear. Land is also limited while the number of families will continue to grow." (Nining, 2019)

The memory of Merapi as a living space (living space / lived space) as well as a space of enjoyment is always alive and lived by women in Pager Jurang. Collective memory will continue to call and settle in the imagination space. The women must now try to find a new living space and fun space in a permanent residential area with all its limitations. In such a situation, some Merapi residents who were relocated to hunting chose to return to the slopes of Merapi even though the area was considered a dangerous zone. The choice of risk is taken to meet the needs of life. There are several reasons that cause residents to return to Merapi: finding food sources, agriculture, animal husbandry, and sand mining. Another reason that moved them to return to Merapi was the development of the Merapi area into a tourist destination. This opportunity was used by some residents to trade food and souvenirs typical of Merapi. In addition to pragmatic purposes, the return of some ex-Merapi people to the area (danger) around the slopes of Merapi is to feel the typical atmosphere of Merapi, which is full of togetherness.

The 2010 Merapi eruption made a traumatic imprint for the Merapi people who now live in huntap, especially the Pagerjurang Huntap. The perceived trauma changes their perception of Merapi. Merapi, which at first was considered as a good friend, is now interpreted as a friend who makes trauma (traumatic friend). People living in the Merapi area are increasingly threatened. The traumatic eruption in 2010 which caused the death of 275 people became a sad shadow, especially for residents who lost family members, agricultural land, and livestock (Radite, 2018).

The traumatic memories of Merapi residents are often used by irresponsible people by spreading hoaxes about Merapi. As happened when Merapi experienced freatic eruption. Phreatic, harmless, low-capacity eruptions are dramatized by a group of people to deceive the population with a motive to buy people's assets at a low price. Thus, residents face two possible eruptions: the eruption of Mount Merapi and the eruption of information are important considerations of the SGM (Gunung Merapi School) in designing disaster SOPs. SGM makes formulations in disaster literacy, ranging from education about volcanic disasters to an independent evacuation process based on local values. Radite (2018) describes the power of information eruption:

"Merapi eruption is dealing with information eruption. The spread of hoaks is faster than accurate information. Merapi residents must face two possible disasters: Merapi with its volcanic activities and social media with the spread of fake news. Mitigation requires a comprehensive understanding, not just about dealing with nature, but also against information manipulation. The speed of hoax news dissemination is often used by cattle traders to buy residents' cows on the slopes of Merapi at cheap prices." (interview 9 August 2018)

Traumatic feelings change some of the people's perspectives in understanding Merapi. As Nazaruddin revealed, the local knowledge of "titen science" began to shift towards

a more positivistic understanding. The influence of mass media and official state information often actually adds to people's fear. In contrast to some social media developed by citizens who show a more harmonious relationship between Merapi (sacred) and human life (profane). Nazaruddin:

"this study concludes that the modern state-sponsored knowledge has recently dominated the locals perspective on their volcano and surrounding environment. Nowadays, young people on the slopes of Mt. Merapi rely on the official information from BPPTKG for their communal decision making. Furthermore, this phenomenon indicates certain cultural shifts within the local communities on slopes of Mt. Merapi "

Merapi as Space: between Myth, Tourism and Mining: a Conclusion

When Merapi transforms into an area of tourism, two possibilities will occur. First, Merapi promises to improve the economy of residents living around Merapi. Residents can take advantage of the opportunity to sell various souvenirs or special foods of Merapi. Birkman et.al (2010) regards disasters as "the window of opportunity" which necessitates the emergence of new hopes after a disaster. Secondly, Merapi will be built with the logic of tourism which in some degree has spatial problems, especially if related to environmental aspects. The status of KRB III becomes a dilemma because the state is ambivalent in responding to spatial issues at Merapi. KRB III which assumes the Merapi slope as a red zone is not fully applicable. Community dependence on Merapi is still very large. The change in the status of Merapi as a tourist destination has also become a magnet for many groups, including local governments that apply tourist area fees. The attitude of the regional government seems paradoxical: it prohibits all forms of human life activities while enjoying tourism potential. The problem that arises is the guarantee of the safety of travelers and residents who still survive on the slopes of Merapi. KRB III does not require infrastructure development while the evacuation process in the event of a disaster requires adequate evacuation routes.

Living together with risks (living with risks) is again the choice of residents around Merapi. In some aspects, disaster is interpreted as a "window of opportunity" for changes in various dimensions (Birkmann, 2010). Disasters are also often understood as catalysts for adaptation to create new policies that are more responsive and contextual (Johnson, et al, 2005). Whereas Pelling & Dill (2010) sees disaster as a turning point for change. Disasters can also be seen as new opportunities for reorganization and the discovery of new methods to strengthen resilience.

References

Chandler, Daniel. Semiotics: The Basic.2nd Edition. New York: Routledge, 2002

Minanto, Ali & Ida Nuraini Dewi Kodrat Ningsih. Literasi Bencana Di Sekolah Gunung Merapi Tentang Mitigasi Bencana Dan Kewarganegaraan Transformatif (Disaster Literacy School Of Merapi Mountain: Mitigation And Transformative Citizenship). Journal Of Wacana, Volume 17 No. 2, December 2018, P. 207 - 216

Nazaruddin, M. (2013). *Natural Hazard And Semiotic Changes On The Slope Of Mt. Merapi, Indonesia* (Master Thesis). Tartu: University Of Tartu.

Parmono, Kartini. Nilai Kearifan Lokal Dalam Batik Tradisional Kawung (Local Wisdom Values In Tradisional Batik "Kawung"). Jurnal Filsafat Vol. 23, Nomor 2, Agustus 2013

Schwartz, Barry. "Rethinking The Concept Of Collective Memory" In Tota, Ana Lisa & Traver Hegen. *Routledge International Of Handbook Of Memory Studies*. London & New York: Routledge, 2016.

Yusup, Yasin. Hidup Bersama Risiko Bencana: Konstruksi Ruang Dalam Perspektif Ruang Relasional (Live With Disastre Risk: Construction Of Space In The Relational Space Perspective) In Jurnal Perencanaan Wilayah Dan Kota (The Journal Of Area And City Planning) Vol. 25, No. 1, Hlm. 58-76, April 2014

Interview With Pagerjurang Women