# Natural Hazards and Disaster Risk Reduction Policies

Loredana Antronico - Fausto Marincioni Editors







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# Natural Hazards and Disaster Risk Reduction Policies

Loredana Antronico Fausto Marincioni *Editors* 





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*Cover:* A woman shovels mud from her driveway in the aftermath of the October 2010 debris flow that affected the Province of Vibo Valentia (Calabria, southern Italy).

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# 4. Geographical and historical processes of human settlements in the Etna Region. A person-place relation approach

Salvatore Cannizzaro<sup>1</sup>

#### Abstract

Etna volcano is primarily characterized by Strombolian activities, happening at the top craters or opening in mouths on the sides of the mountain, often producing temporary cones largely diffused along the slopes. There is a scientific and popular consensus about the existence of an actual but not immediate danger to people. The chapter deals with the geographical and historical process of human settlement diffusion in the Etna region over the last century and a half, considering social, cultural and economic motivations of people who voluntarily chose to live in this area, setting out a conscious coexistence with the biggest active volcano in Europe. Definitions of 'sense of place' and 'place attachment' have been assumed as cultural geography's benchmarks for the analysis. Secondary and primary data have been achieved making a placed case study, and following the procedure suggested by Grounded Theory, namely mixing sources of diverse nature and comparing with the personal knowledge and geographical experience of the author. Main results are that all people are perfectly conscious of living in a risky place; but the love their home and their landscape, which is both the landscape of family memories and an important base for economic activities. The chapter gives a positive contribution in explaining the seemingly *irrational* behavior of people living under the shadow of an active volcano.

Keywords: Etna volcano, risk, perception, person-place, topophilia.

#### 1. Introduction: Focus and Research Questions

According to the Italian Department of Civil Protection, eruptions of the Etna volcano are primarily characterized by Strombolian activities, namely

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the effusion of lava castings and issues of ashes. These volcanic phenomena happen at top craters or the opening mouths on the sides, often producing temporary cones largely diffused along the slopes of the mountain. This kind of activity, in general, affects a limited area around the eruptive mouth and is not considered a sound danger by residents, public bodies and scientific institutions. Lava castings generally spill out at high altitude and have a low speed. Indeed, they are not an immediate danger for the safety of people (Dipartimento della Protezione Civile-Presidenza del Consiglio dei Ministri, n. d.). However, a possible big and long-lasting eruption may be considered in the hypothetical risk model of the Etna region, which has been populated ever since the very first human settlements in Sicily (Regione Siciliana, 2013). This chapter deals with the geographical and historical process of human settlement in the Etna region over the last century and a half, considering social, cultural and economic motivations of people who voluntarily chose to live in this area, setting out a conscious coexistence with the biggest active volcano in Europe.

Etna volcano is the center of its eponymous region, located in the northerneastern section of the island of Sicily. Notwithstanding, this mountain area, notoriously characterized by enduring volcanic risk, has been the location of several small and big villages, and a centre of a vital socio-economic activity for many centuries. The choice to live in such conditions by many generations of people appears puzzling and even incomprehensible, from the positivist paradigm of location analysis perspective (Conti, 1996). Settling in a risky place is defined irrational, or *satisficing* and *optimizing*, under the bounded rationality hypothesis, which predicts the achievement of economic suboptimal equilibrium (Simon, 1993). Cultural geography stresses the hermeneutical insufficiency of the homo economicus model, claiming, for instance, a deeper reasoning on perception on environmental hazard, starting from the person-environment and person-place relations to the perspective of place attachment suggested by eminent cultural geographers (Altman and Low, 2012; Manzo and Devine-Wright, 2013). From a traditional position on hazard perception (Palagiano, 2005), a punctual literature review and analysis on the issue of risk perception and construction has been recently made by Italian geographers (Malatesta and Rondinone, 2011), illustrating that the individual agent may have a behavior defined as hierarchical, selfish, egalitarian and fatalist, determined by the surrounding social system (Thompson and Schwarz, 1993).

Therefore, the research focus was on residents hazard perception and conscious coexistence with the biggest, still active volcano in Europe. The subsequent research questions are defined as follows: (i) what kind of

awareness people actually have about living in a risk volcanic area; (ii) why and when they decided to live there; (iii) how they perceive the private-public relations in risk management; and, (iv) which kind of feeling they have for their living places. The research was referred to the Etna Area, as defined by the I.N.G.V., namely the Geophysics and Vulcanology Italian Institute, whose residents have to be alerted in regards to different types and levels of volcanic activity risk (Regione Siciliana, 2013). This area is quite large, encompassing 43 Municipalities, including Catania, different from the Etna region as defined by Italian geographer Alberto Di Blasi (1997), and also including some urban centers more or less far from the Etna cone, being possibly affected by the fallout of volcanic ashes. The chapter is organized as follows. Section 2 reports methodology and data collection procedures. Section 3 and 4 are dedicated to backgrounds. Section 3 reports the main geographical characteristics of the Etna region, and the population of municipalities located in the Etna area since the date of the very first official Italian Census, carried out in 1861, after the political unification of Italy. Section 4 reports a brief review of theory and literature on 'sense of place'. Section 5 describes the study's results. The final section 6 is dedicated to discussion and concluding remarks.

#### 2. Methodology and Data Achieving Procedure

A recent study dedicated to the same topic of the present chapter (Mercatanti, 2013) signaled that relationship between people and the Etna volcano is difficult to analyze, due to its multi-dimensional nature. Hence, in order to overcome these difficulties a deep analysis of the local situation based on case study method is necessary, following suggestions of eminent scholars (Stake, 1995; Yin, 2013; Zainal, 2007). To analyze primary and secondary data, procedures suggested by Grounded Theory have been borrowed, by inspecting diverse series of sources, including scientific literature, popular narratives, and personal observation (Corbin and Strauss, 1990; Glaser and Strauss, 1967). Secondary data was gathered from preceding literature, both scientific and gray, the Internet, social media websites, and newspapers. Primary data was retrieved observing the local reality by using personal experience and geographical knowledge of the region (Anderson et al., 2003). In order to validate the personal experience of the author primary data was gathered from diverse residents, living in the Etna area. For this, the author conducted a series of deep interviews with key-informants by following a specific procedure (Kvale, 2006) during the second semester of 2017. Key informants were selected following the snowball sampling method (Mack *et al.*, 2005) from people who live in some of the municipalities listed in table 1.

Tuble T Elst of interviewed Rey informatis.				
No	Role	Age	Place of residence	
1	Engineer	47	Nicolosi	
2	Engineer	40	Zafferana Etnea	
3	University employee	43	Bronte	
4	Medical Doctor	56	Randazzo	
5	Student	28	Maletto	
6	Dealer of building materials and lava	68	Pedara	
	stones			
7	Lawyer	56	Castiglione di Sicilia	
8	Student	28	Belpasso	
9	Tourist guide	50	Catania	
10	Tourist farm owner	48	Mascali	
11	Researcher	55	Aci Castello	
12	Tourist operator	49	Trecastagni	

Table 1 - List of interviewed Key informants.

Official statistical data was extracted from diverse ISTAT (Italian National Statistics Service) sources. In contrast, these interviews illustrate the perception of residents living in such a risky-but-beloved area as the Etna region. Exploring primary and secondary data, it is possible to narrate a credible description of the actual reality, and perception of residents, giving sense, in order to deepen our understanding of person-place relations in the Mountain Etna volcanic area.

#### 3. Background: Etna volcano and human settlements

The Sicilian regional territory includes two volcanoes, Etna and Stromboli, both with a high frequency of eruptions. Furthermore, there is an area where volcanic reactivation is possible (Vulcano island), and potentially dangerous areas such as Lipari and Panarea (Aeolian islands), and Pantelleria (located in the Channel of Sicily). Other seismically threatened areas are located in eastern Sicily: the Strait of Messina area, the Ragusa-Syracuse area, the northeast coastal chain, and, secondarily, in the whole Western Sicily (Giacomelli and Scandone, 2007).

The subsidence of the African plate under the Asian one produced an intense tectonic activity that givess origin to many volcanoes in the Aeolian archipelago and the formation of the main volcanic cone of the Etna. Sicily is the Italian region most exposed to natural geodynamic disasters, namely to earthquakes and volcanic eruptions. It suffices to recall the earthquakes of the Val di Noto of 1693, with about 60,000 victims, and that of Messina in 1908, with about 90,000 victims, both hitting the eastern sector of the island. About the Etna volcanic eruptions, those of 1669 and 1928 should be remembered, because they devastated vast portions of the territory located on the slopes of the volcano. Over time, many eruptions threatened human settlements, not always provoking massive destruction of inhabited areas. Over centuries the volcano changed its shape, several villages have been often struck, and hundreds of eruptions have relentlessly changed patterns of the landscape, even reaching the Ionian Sea coast (Bonaccorso *et al.*, 2004; Cucuzza Silvestri, 1970; Gemmellaro, 1989; Pesaresi, 2003).

In the Etna region, the present eruptive center of the volcano is located many kilometers far away from the original one, which originated nearly fifty or sixty thousand years ago. The very first magmatic emissions were located under the sea in the area of the village of Acitrezza and the seafront of the city of Catania (Regione Siciliana, 2013). Today, all these areas are considered the most beautiful coasts of eastern Sicily for both residential and tourist purposes. The *Mungibeddu* or 'a *Muntagna* (Sicilian names of Etna) did originate in the Quaternary period and it is the highest active volcano in the Eurasian plate. The Etna volcano rises more than three thousand meters above the sea level and is located between the Ionian Sea, the Alcantara and Simeto valleys, and the Catania plain. Its massif dominates all the eastern Sicily, being a very recognizable landmark (Di Blasi, 1997).

The Etna region landscape and its variety are the results of natural conditions and human activities over a long period of civilization (Cirelli and Nicosia, 2010). Local vegetation gathers a rich diversity of both natural and cultivated species. Intensive farming runs vineyards, fruit and pistachio orchards. Farming land is fragmented in small plots by a network of lanes, dry-stone walls, and terraces up to fifteen hundred meters above sea level. Beyond, land morphology becomes harsher and up to two thousand meters, there are only forests of chestnut, beech, and birch. Over this height, landscape tends to be very dry and desert, being the only wilderness for altitude in Sicily. The actual volcanic desert area is located from 2,950 to 3,370 m above sea level. The coast area shows a very different type of landscape. There are headland, capes, small gulfs, natural terraces, and narrow beaches, usually colored by alternating black of the rocks and green of vegetation. The climate is more humid in the northern side, and rains are near 600-800 mm per year in the base area, and more than 1.200 mm per year at higher altitudes (Regione Siciliana, 2013).

On 17 March 1987 the President of the Sicilian Region adopted a law decree establishing the Etna Natural Park, the very first in Sicily, with an area of fifty nine thousand hectares. Its aim is protecting a unique natural environment, and landscape, and promoting the sustainable development for local people and communities. On the 21 June 2013 UNESCO awarded Etna Mountain the title of World Heritage Site. The related area is 1,570 square kilometers, the diameter near 45 kilometers, and the base circle near 180 kilometers (*Ibidem*).

From the very first Italian National Census of population–in 1861 by ISTAT—up to present time, the whole area has much increased in resident population. Table 2 shows the variation of inhabitants in the municipalities located in the Etna area, over the long period from 1861 to 2016. Even though the whole area has increased the number of inhabitants, there are big differences among the geographical sectors of the Etna region. At large, only the northern-eastern sector of the volcanic cone faced a clear decreasing of residents, while all the others increased their inhabitants, in some cases with impressive intensity. The last right column of table 2 shows the percentage variation of inhabitants per each municipality, and the Province of Catania. Comparing municipality/province values it is possible to show the territorial areas losing or gaining residents over this period. The data has been used for drawing a thematic map (Fig. 1).

	Inhabitants		
Municipality	1861	2016	⊿%
Aci Bonaccorsi	1,122	3,524	214.08
Aci Castello	2,016	18,674	826.29
Aci Catena	4,597	29,671	545.44
Aci S. Antonio	3,764	18,052	379.60
Acireale	30,785	52,574	70.78
Adrano	13,161	35,894	172.73
Belpasso	7,362	28,081	281.43
Biancavilla	9,388	24,040	156.07
Bronte	10,852	19,116	76.15
Calatabiano	2,711	5,258	93.95
Camporotondo Etneo	731	5,075	594.25

Table 2 - Municipalities of the I.N.G.V. Etna area. Inhabitants 1861-2016. Source: processing from ISTAT (n.d.).

#### Table 2 – (continued).

Castiglione di Sicilia	5,020	3,182	-36.61
Fiumefreddo di Sicilia	1,426	9,560	570.41
Giarre	13,265	27,605	108.10
Gravina di Catania	1,373	25,615	1,765.62
Linguaglossa	8,077	5,357	-33.68
Maletto	2,597	3,841	47.90
Maniace	1,333	3,756	181.77
Mascali	3,618	14,238	293.53
Mascalucia	3,293	32,059	873.55
Milo	950	1,072	12.84
Misterbianco	6,279	49,634	690.48
Motta Sant'Anastasia	3,224	12,221	279.06
Nicolosi	2,793	7,533	169.71
Paternò	14,219	48,034	237.82
Pedara	3,346	7,533	125.13
Piedimonte Etneo	4,982	3,951	-20.69
Ragalna	982	3,963	303.56
Randazzo	7,005	10,810	54.32
Riposto	6,419	14,776	130.19
San Giovanni La Punta	1,631	23,270	1,326.73
San Gregorio di Catania	1,673	11,873	609.68
San Pietro Clarenza	998	7,915	693.08
Sant'Agata li Battiati	519	9,505	1,731.41
Sant'Alfio	1,671	1,582	-5.33
Santa Maria di Licodia	2,786	7,628	173.80
Santa Venerina	5,560	8,549	53.76
Trecastagni	3,038	10,985	261.59
Tremestieri Etneo	1,139	20,359	1,687.45
Valverde	844	7,850	830.09
Viagrande	2,894	8,672	199.65
Zafferana Etnea	3,358	9,562	184.75
City of Catania	70,608	313,396	343.85
Province of Catania	369,931	1,113.303	200.95

In order to give an immediate representation of distribution of people around the sides of Mount Etna over the period, a thematic map has been drawn (Fig. 1). The map shows grouping of municipalities according to inhabitants' percentage variation ranges as of < 0, 0.99, 100-199, 200-499. 500-999, and > 1,000. A feature immediately apparent is the clear North-South divide between the Etna slopes, or even better a diagonal Northeastern-Southwestern division. The very few villages with a negative trend of inhabitant growth are located in Castiglione di Sicilia, Linguaglossa, Piedimonte Etneo, and Sant'Alfio (see Tab. 2, and Fig. 1). In the northern sector, only the Village of Maniace shows a positive percentage increasing of inhabitants, and in general the prevalent range is that of 0-99, namely the lowest one in the whole Etna area. It is apparent that this is a geographical area with difficulties related to its distance from the city of Catania, with less transportation accessibility, higher average altitude, north-facing exposition, harsh winters, longer duration of snowy periods, and a weaker attraction for new residents.

In parallel, the South and Southeastern slopes of Mount Etna show a strong increase in inhabitants. This area encompasses municipalities whose increasing trend is included in the ranges of 200-499, 500-999, and > 1,000. In particular, municipalities closer to the plain and the city of Catania faced a paramount increasing of inhabitants, becoming integrated in a densely urbanized area. Important particularities are those of villages that faced an increasing of population of 500-999% and more than 1,000%, all of them are located close to the city of Catania. Remarkable are the features of the villages of Gravina di Catania (+1,765.62), Sant'Agata li Battiati (+1,731.41), Tremestieri Etneo (+1,687.45) and San Giovanni La Punta (+1,326.73). These villages are today an integrated part of the urbanized area surrounding Catania, whose ongoing number of inhabitants (313,396) are less than that of the 1971 Census (400,048) (ISTAT, n.d.). This data indicates many residents of Catania have preferred to 'go back' and buy houses in small villages close to their places of employment, and daily commute. Furthermore, the Ionian coast is another geographical area capable of attracting inhabitants, at the same level or even more so than the city of Catania.

It should be clear that the long wave of human settlement around the Etna slopes has been sustained by the people's preference for living *both* close to the urban area of Catania *and* the volcano. There is no evidence of any relation between the history of volcanic eruptions or earthquake and the decreasing of the population, neither in the whole Etna area nor in the few Municipalities that show a negative trend. This should be better explained by the willingness

of people to migrate towards the urban residences, away from the rural life, which is usual in all parts of Sicily and Italy (Cannizzaro and Corinto, 2014; Di Blasi, 1972; Formica, 1979).



Figure 1 - Municipalities of the I.N.G.V. Etna area. Percentage variation of inhabitants 1861-2016. Source: the author from data of table 2.

#### 4. Background: Sense of Place

An exhaustive literature review on the concept of sense of place and its ongoing meaning in cultural geography can be found in Altman and Low (2012). For the sake of the present work, it suffices to underline some main issues as follows. The affective relation between people and the geographical area where they live is one of the dimensions of 'sense of place' studies since its emergence in humanistic geography research. The term indicates the intimate, personal and emotional relationships between 'self' and 'place', privileging the positive affective qualities of place-attachment. It describes the senses of affection, attachment, belonging, and positive ties to a place, namely 'love of place', or 'topophilia' (Relph, 1976; Tuan, 1977). This definition is sustained by a phenomenological tradition (Casey, 1998) in which place is a meaningful, and healing, -counter to abstract, rationalistic, and not localized notions of 'space'. Critical geography approaches from the 1980s onwards put in light how such positive senses of place does produce an 'identity' capable of symbolically and physically excluding who is considered 'out-of-place' (Cresswell, 1996). Already Relph (1976) and Buttimer (1976) had emphasized that economic and cultural forces such as urbanization, industrialization, and globalization, could erode, and even occlude, supposedly authentic or original forms of place-based communities. From a different point of view, Massey (1994) designated a 'global sense of place', namely a conception of place as permeable, outward open, progressive, and then opposed to conservative, enclosed and unitary. Both progressive definitions of sense of place and contrasting older and narrower usages of the term, are still fertile soil for theory making, and adopting sense of place and place-attachment approaches as sound investigative methods (Feld, Basso, 1998). Such methods provide the opportunity to investigate 'in place' the nature of feelings that bond people and the landscapes of the Etna volcano, in order to better understand their 'incomprehensible' choice to live in such a risky place.

#### 5. Results

Results from the analysis of primary data are that, with respect to awareness of people living in a volcanic risk area, it is very clear that residents in the Etna region consider the mountain and the volcano a sort of a 'goodold-fellow', -better to say a father, a grandfather, a repository of meanings, memories, and family histories, including those of many past generations who have continuously lived under the shade (and the marvelous landscape) of the volcano. People love 'their' volcano and narratives collected from key informants say clearly no one has left the region due to any volcanic threats, even though they are perfectly aware of the risk.

Who left the village of Nicolosi has been urged by extreme poverty at the beginning of the 1900s and during the immediate post-WWII. They migrated to Argentina, the US, and Germany. The last eruption that actually threatened people of my village was in 1983, but after the city evacuation the flow did stop (Informant n. 1).

With respect to the question on why and when people decided to live in the Etna area, the majority of informants declared they lived there from birth, as members of families with many generations living under the shadow of the volcano. Some people left their urban place of residence, or birthplace, for family or work reasons, and even to avoid crowded Catania.

'I am a student and was born here. My family decided to buy a house in the village of Maletto because my father was born here and my mother decided to find a job and work here' (Informant n. 5).

'I lived in Bronte for twenty years, then while studying at the University of Catania I was a commuter until 2009. That year I decided to live in Catania for working necessity. All my preceding generation did always live in Bronte' (Informant n. 3).

'I voluntarily chose to live in Randazzo, mainly for work purposes, as a Medical Doctor I found my job opportunity here. No one of my relatives has before lived here' (Informant n. 4).

With respect to the question on how people perceive the private-public relations in risk management, all informants declared that the public bodies are doing a great work for assuring an effective safe of people and a functioning civil protection service. Risk and environmental education of the young are performed by public schools in a good manner. Many public initiatives and scientific meeting involve also common people in having good information about general risk, and how escaping from eruptions, and rescuing from earthquakes. Even during an ongoing event of eruption people do maintain confidence in being able to avoid major damages. The only big concern is the lack of coordinated land planning policies. People build houses without public land planning. The institution of the Etna Park gives some hope for the future better use and respect of its environment (Informant 5).

Finally, in regards to the feelings they have for their own living places, results are particularly intriguing. Feelings of loving their own houses and living places was clearly apparent during conversations between the interviewer and all the informants. No one was ever afraid of Etna; people

conducted their daily-lives with the volcano, and considered its as a family member. Even during the dangerous volcanic events, no one thought to abandon their residences, places or held any resentment towards Etna, which they consider the 'good giant'. Everything about their homes and daily-lives remind them of the precariousness of existence and material objects. If they survive Etna's wrath, they will re-start their lives, tourism and hospitality activities, all which they consider supported by the presence of Etna volcano and its unique landscapes.

Findings from primary data are consistent with those from secondary ones. It is really intriguing that informants often appreciate the 'spectacular' performances of the volcano when erupting both for direct interest and as a tourist attraction, - which is largely confirmed by news easily retrievable from digital and traditional media sources. For the sake of brevity, it suffices to reference the online Washington Post (Fig. 2) and to two tourism operators respectively local and foreign (Fig. 3 and 4).



Figure 2 - Washington Post on Spectacular Eruptions of Etna. Source: retrieved from https://www.washingtonpost.com/world/europe/see-the-spectacular-eruption-of-mount-etna/2017/03/01/8285e3f4-fece-11e6-99b4-

9e613afeb09f\_gallery.html?utm\_term=.cf5b6a8e7bdb, accessed on May 8th, 2018.



Figure 3 - Go Etna. Visit Mount Etna in Eruption. Source: https://www.go-etna.com/surveyof-an-outbreak/; last access: May 8<sup>th</sup>, 2018.



Figure 4 - Wevillas, Our Luxury Villas for Rent in Catania. Source: https://wevillas.com/news/italy-new-spectacular-eruption-by-mount-etna-in-sicily; last access: May 9th, 2018.

Even people having directly experienced the effects of eruptions, list the volcano as the third most serious problem in their daily lives, after the lack of a vibrant social life and consistent public services (Davis *et al.*, 2005). All the

people in Etna's shadow are perfectly aware of living in such a risky area, realizing that the next eruption is possible, but not actually dangerous. People feel that they have control over their exposure to the eruption's effects. They consider personal and collective preparedness, including that of government officials, as more than acceptable, and even high. This is attributed to community bonding that ensures sharing of same feelings and culture against nature in general and the volcano in particular. The successful government response during Etna's 2001 and 2002-2003 eruptions was considered a good benchmark for the future, enlarging the sense of safety for living in the area (*Ibidem*).

Finally, the best way of illustrating the nature of the relationship between Etna and the people living on its slopes, is found in the words of the Sicilian writer Leonardo Sciascia (2003, 1262): 'It's like a huge house cat that snores quietly; every now and then, it wakes, yawns, stretches lazily and with a swipe of its paw destroys a valley here or there, wiping out towns, vineyards, and gardens'.

#### 6. Discussion

The adopted research method has proved effective for sourcing useful primary and secondary data to address the research questions posed in the introduction. Many popular novels tell about the coexistence between Etna and its resident human communities, often in surprising ways, which are considered superficial and not scientifically relevant. So, one of aims of the study was to compare diffused information with primary data, collected from residents and people who previously lived in the Etna area. The main objective was to find possible relations between volcanic risk and human settlement in the Etna region. The study tried avoiding interpretations of this historical human behavior as 'incomprehensible' or 'irrational'. The study discovered some original information, which contributes to a deeper knowledge of why people continue to live in Etna's shadow. Following cultural geographers' previous research on 'sense of place' and 'place attachment', the study revealed local characteristics of person-place and person-environment relations in the Etna region. People love Etna, and every day is considered a sort of benefit-risk balance. They consciously consider benefits more valuable than risks. The beauty of the landscape, possession, and maintenance of inherited family houses, living in small and comfortable villages not far from the city of Catania, and the possibility to manage

economic activities related to the presence of the volcano are actual trade-offs with the volcanic risk. Results correspond to the 'fatalist individual' archetypes as one of the four individual-social behavior models proposed by Thomson and Schwarz (1993). Still, some critical comments are necessary for better describing and interpreting the local reality. The fatalism of people who are living on the Etna's slopes, possess profound cultural roots. It could even be interpreted like a sort of intimate philosophy - which nourishes the idea that mother nature is 'unpredictable' and places 'everything is at risk'. It is apparent that, in a deeper manner, people living here consider themselves in symbiosis with the volcano. Under their narrative discourses, they are seemingly saying 'Mount Etna was my cradle, and what? It can be also my grave', and 'it is marvelous living here and possibly it would be fine dying here'. Indeed, they know well very few people have died due to the volcanic activities.

#### 7. Conclusions

Living under the shadow of the most beautiful and the highest volcano of Europe gives people a strong sense of identity, and helps the locals in considering themselves different from the rest of the world (Cresswell, 1996), including Sicily. Etna is famous worldwide. It has a long history, and actually, a long geologic pedigree an provides the opportunity to build a strong myth around the mortal lives of its people. It is an important research topic for many researchers of diverse disciplines. It also has been featured many times in the most famous newspapers of the world. Its eruptions are spectacular and people watch them as a performing exhibition during a great night show. It has been narrated since the birth of literature and today by cinematography as well (Cirelli and Nicosia, 2010). It is 'the house cat that snores quietly' (Sciascia, 2003) which can eventually destroy my property, but it is *my cat*. Finally, it offers the opportunity to manage tourism and hospitality businesses, being a well recognizable landmark and a tourism destination that should be better exploited.

The chapter reports the findings of a case study on people, place and am active volcano. Thus, it can help us understand local situations, and localized perceptions of natural risks. It can help understand a slice of Sicilian identity, which is always fabricated by many diverse local actors and communities. Geological features of Etna volcano are extremely peculiar, and for instance, much different than those of the Vesuvio volcano, located near the city of Naples (Davis *et. al.*, 2005). Thus, results can be compared only critically

with those of other case studies placed in different volcanic areas or regions. Policymakers may consider the results of the research as a means for improving public intervention in regards to two main issues. The first is certainly the education of the young to risk management. By improving awareness of living in a place that is naturally subjected to eventual risk. The second one, is the necessity to improve tourist services and accommodations and their quality for attracting more tourists from abroad, giving them the possibility to enjoy their leisure time in a beautiful and safe place.

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https://www.washingtonpost.com/ [last access: May 8th, 2018]. https://wevillas.com/news/italy-new-spectacular-eruption-by-mount-etnain-sicily [last access: May 9th, 2018]. Natural Hazards and Disaster Risk Reduction Policies collects 14 original essays, of authors from all around the World, exploring strategies and ability of local communities to adjust to natural hazard and disasters. The volume, fostering the current scientific debate on disaster ecology, muses about the need for Homo sapiens to define its rights and responsibilities in environmental dynamics, including extreme events and disasters. In the end, the reflections about how to deal with hazard, vulnerability and disasters, highlights the ethical nature of disaster risk reduction; control of nature or adaptation to its cycles?

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