KC, Chandani, Karuppannan, Sadasivam, and Sivam, Alpana. (2019), Importance of Cultural Heritage in a Post-Disaster Setting: Perspectives from the Kathmandu Valley. In: Journal of Social and Political Sciences, Vol.2, No.2, 429-442.

ISSN 2615-3718

DOI: 10.31014/aior.1991.02.02.82

The online version of this article can be found at: https://www.asianinstituteofresearch.org/
Importance of Cultural Heritage in a Post-Disaster Setting: Perspectives from the Kathmandu Valley

Chandani KC¹, Sadasivam Karuppannan¹, Alpana Sivam¹

¹School of Art, Architecture and Design, The University of South Australia, Adelaide, Australia

Correspondence: Chandani KC, School of Art, Architecture and Design, The University of South Australia, Adelaide, South Australia. Tel: +61 416683757. E-mail: chandani.kc@mymail.unisa.edu.au

Abstract
This paper explores the role of cultural heritage in a post-disaster setting and its importance in maintaining the social and cultural values in the redevelopment of areas damaged by an earthquake. It uses a case study method with the Kathmandu Valley in Nepal as the case study site. Intangible heritage in the valley such as daily rituals, festivals, and processions helped people to overcome the traumatic experiences of the disaster and helped communities reconnect with each other. Findings from the research show that cultural heritage plays an important role in helping people readjust their lives after major disasters such as the 2015 Nepal earthquake. It argues for recognition of cultural heritage in the post-disaster recovery and redevelopment process.

Keywords: Natural Disaster, Cultural Heritage, Historic Cities, Developing Countries, Intangible, Kathmandu Valley

1. Introduction
Cultural heritage is of increasing significance to every society. It provides a sense of belonging and can be an anchor in a rapidly changing world. It is the result of people’s interaction with their environment and with one another. In recent times, cultural heritage in historic cities is facing pressure from different areas including globalisation, urbanisation, rapid growth of socio-economic progress and natural disaster. Natural disasters such as earthquake, fire, flood, volcanic eruption and windstorm pose threats to the integrity, and on some occasion the very survival of cultural heritage (Spennemann, 1999). It disrupts the normal processes of life accompanied by a physical change of familiar surroundings and emotional benchmarks. UNISDR (2009) define disasters as sudden events that bring disruption to a society with human, material, economic and environmental losses or impacts that exceed the ability of the affected community to cope up with by using their own resources. On April 25 and May 2015, earthquakes of 7.8 and 7.3 magnitude hit Nepal and wreaked havoc across the country. The earthquakes and aftershocks caused significant damages to several historic buildings and led to a staggering loss of lives in 39 districts of the central and western region of Nepal along with damages to 2900 heritage structures with cultural and religious values (Government of Nepal, 2015). Besides the destruction of cultural heritage sites, the earthquakes also led to breakdown of practices, rituals, and activities enacted by people in their daily lives.
In recent times, there has been an increasing focus on cultural heritage and disaster. Spennemann & Graham (2007) argued for disaster management of cultural heritage sites claiming that heritage cannot protect itself and therefore heritage managers as the custodians and stewards must ensure that it is protected. To conserve and protect cultural heritage after a disaster, it is foremost important to understand its role in the aftermath of a disaster. Both tangible and intangible heritage provides community the familiarity that helps them to cope in the chaotic environment and plays an integral role in assisting communities to readjust their lives after the earthquake. UNESCO (2015a, 2015b) defines tangible heritage as “buildings and historic places, monuments which are considered worthy of preservation for the future” while intangible heritage are “the traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge, and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts”. Scholars such as Bhandari, Okada & Knottnerus (2011) have focused on the role of intangible heritage like ritual practices for enhancing the capacity of a community to adapt to disaster risk. Eyre (1999) demonstrated how ritual expression can help to express the sense of shock, anger, disbelief, grief and other emotions associated with the disaster. Cultural heritage and the conservation of it can essentially assist the community in achieving some sense of normalcy and assist in the recovery process (Nelson, 1991, Hollow & Spennemann, 2001).

With this in focus, this paper highlights the role of heritage in a post-disaster setting and its importance in maintaining the social and cultural values in the redevelopment of areas damaged by a natural disaster. Empirical evidence concerning heritage and disaster is derived from a study of Kathmandu and Lalitpur in Nepal. The global attention to illustrate recovery and redevelopment process in Kathmandu after the 2015 earthquake creates a dynamic context for exploring the role of heritage after a disaster. Several methods were employed to highlight the importance of heritage after the disaster including questionnaire surveys and semi-structured interviews. The first part of the paper discusses natural disaster and cultural heritage along with the methods employed in the research. The second part discusses the Kathmandu Valley as the case study site and the last part presents results and discusses the findings.

2. Method

Over the last few decades, natural disasters are occurring at an increasing rate causing heavy losses to human lives, damages to physical properties and affecting socio-economic conditions of different communities. The 2004 tsunami in India, 2005 hurricane in New Orleans, 2010 earthquake in Haiti, 2010 floods in Pakistan, 2013 fire in China and 2015 earthquake in Nepal challenged the country and its development at a large scale. It destabilised the meaning of the place resulting in the breakdown of practices enacted by people in their daily lives (Fields, Wagner & Frisch, 2014). In times of these major disasters, it is the cultural heritage component of the environment that played an integral role in assisting communities to cope with these events (Spennemann & Graham, 2007). It presented them with familiar surrounds and activities which provided assurances and reassurances. Cultural heritage has a powerful impact on the way people experience and respond to disturbances of their everyday practices. UNESCO in its Third Medium-Term Plan 1990-1995 has defined cultural heritage as:

The entire corpus of material signs - either artistic or symbolic handed on by the past to each culture and, therefore, to the whole of mankind. As a constituent part of the affirmation and enrichment of cultural identities, as a legacy belonging to all humankind, the cultural heritage gives each particular place its recognisable features and is the storehouse of human experience. The preservation and the presentation of the cultural heritage are therefore a cornerstone of any cultural policy (1990, pp. 87-88).

There is a considerable body of literature on disaster but very few researches focus on heritage. Most of the research on heritage and natural disaster focus on the impact and risk of the disaster on tangible heritage (Baer, 1991; Donaldson, 1998; Langenbach, 2001; Mackee, Haugen & Askew 2014; Stovel, 1998; Maio, 2017). However, there is a body of literature on the role of rituals as a coping mechanism in the aftermath of a disaster. Thornburg, Knottnerus & Webb (2007) demonstrated that human responses to disaster often involve ritual
practices such as recreation, religious and social interaction with family and friends which provide them meaning, direction and stability. Bhandari, Okada & Knottnerus. (2011) focussed on ritualised activities before, during and after the 1934 Nepal earthquake. Their findings reveal that the ritual practices enhanced the ability of the community to cope with such situations and revive a normal social life. Wenger & Weller (1973) and Suri (2018) focussed on the role of cultural elements such as values, beliefs, knowledge, and legends in the survival, adaptation and recovery of the communities hit by the disasters. The intangible heritage such as the festivals, processions, and religious activities not only assist the community after the earthquake but can also contribute to disaster management. This has been highlighted by Bhandari (2014) in his research on the Kathmandu Valley after the 1934 earthquake. He emphasised on the role of ritual procession for disaster risk reduction of a heritage site like the Kathmandu Valley and argues that the ritual processions provide an opportunity for communities to collaborate with local government organisations. During a ritual procession, local government authorities, security organisers and hospitals work in close collaboration with the local organisers for the safety and security of the participants. This can help to develop an extended network of organisations outside a community which can assist at the time of a disaster. His research also highlighted the role of guthis, a socio-religious organisation for the Kathmandu Valley. He mentioned that since guthis (socio-religious organisations) are locally accepted authority structure, it can help in speeding up the decisions during an emergency and ease the flow of information due to the already established channels of communications.

Cultural heritage is important for the emotional well-being of an affected community in the disaster recovery phase. Spennemann & Graham (2007) argue that the protection of heritage sites should rank as highly as protection of property. In order to highlight the importance of conservation of heritage in a post-disaster setting, there is a need to first understand its role in an aftermath of a disaster. Once we understand its role, we can devise policies and strategies for the conservation of heritage. This is even more important for a living heritage like the Kathmandu Valley where cultural heritage is an integral part of everyday life of the community.

3. Methodology

This research adopts a mixed method approach with case study as a research strategy that follows the multiple case design. Yin (2014, p.14) defines a case study approach as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. This approach allowed for data collection to be done by a combination of methods such as questionnaires and interviews. A combination of methods was necessary for this research due to the multidisciplinary and complex nature of heritage and disaster. The setting of this research is the Kathmandu Valley in Nepal where the earthquake of 2015 caused huge devastation in the country. The field work was conducted a year after the earthquake between March and June of 2016.

The central objective of this paper is to understand the role of heritage in the post-disaster setting and understand its role in maintaining the social and cultural values of the site. The methodology involved three principal steps:

- The first step involved questionnaire surveys with the homeowners and stakeholders. Both group of participants were asked questions about the role of heritage in the redevelopment of the site, importance of tying the redevelopment with cultural heritage of the site, role of heritage in maintaining the social and cultural values in the redevelopment process and so on. Participants were asked to answer questions using a Likert scale ranging from not important (rating 1) to very important (rating 5) and strongly disagree (rating 1) to strongly agree (rating 5). A total of 232 surveys were conducted which included 163 homeowners and 69 stakeholders. Homeowners for the surveys were residents from the Newar community living within an area of 2 km radius of the core area in Kathmandu while stakeholders chosen for the surveys were commercial organisations, guthis (socio-religious organisations), local community and local government organisations either located or active in the core area of Kathmandu. Systematic random sampling was employed for the selection of survey participants. Survey data were coded and analysed using SPSS. Descriptive statistics was used to analyse mean frequency and standard deviation of all the responses. Student t-test was used to
investigate difference in the opinion between the two groups of participants i.e., the homeowners and stakeholders.

- The second step involved semi-structured interviews with 19 stakeholders. Stakeholders chosen for the interviews included central and local government organisations, academicians, conservationists and local community leaders. Stakeholders were asked similar questions as the questionnaire surveys.
- The third step involved semi-structured interviews with two guthis associated with Kasthamandap, a historic structure in Kathmandu which was destroyed during the 2015 earthquake. Guthis were asked about the festivals and religious activities associated with Kasthamandap and the continuation of it after the destruction of the structure. They were also asked about the role of heritage in helping them reconnect with other community members.

Both interviews were conducted in Nepali language and audio recorded. The audio recordings of interviews were translated and transcribed into English for the purpose of the analysis. Interview data were coded and analysed using content analysis in NVivo. Qualitative content analysis provides a way to interpret and understand the meaning of the text.

4. Case Study: the Kathmandu Valley

The historic cores of Kathmandu and Lalitpur in the Kathmandu Valley were selected as case study sites. The Kathmandu Valley is the administrative, economic and political centre of Nepal. As the national hub, the valley is home to approximately 2.54 million population with an annual growth rate of 4.3% (Kathmandu Valley Development Authority, 2016). It is one of the fastest growing urban areas in South Asia. Located at the crossroads of an ancient Asian civilisation, the Kathmandu Valley is characterised by a compact urban form, traditional planning concepts, rich built heritage and diverse socio-cultural activities. Seven out of the ten UNESCO world heritage sites in Nepal are in the valley. UNESCO (2016) declared the seven monument zones collectively as a single site and called it the Kathmandu Valley World Heritage Site. The properties were inscribed under criteria (iii), (iv) and (vi) of the operational guidelines of the World Heritage Convention, which means that the value of these sites is based on their living culture, the architectural ensembles and the association to the belief, art and other intangible attributes of the urban heritage (2014). Figure 1 shows the core of Kathmandu and Lalitpur in the Kathmandu Valley.
Urban pattern of the core consists of two basic elements; blocks of closely built two to three storey houses clustered around courtyards and a network of streets and pedestrian lanes. The squares and alleyways are home to many temples, dance platforms, wells and public rest houses. Almost all neighbourhoods have a temple for its own Ganesh and a shrine for its area protector. Each divinity presides over a particular territory and every year each deity is led out in procession (Silva, 2015). In addition, daily rituals and activities along with tangible heritage make the Kathmandu Valley a living heritage site. Figure 2 shows examples of the tangible and intangible heritage in the valley.
Newar people are the focus of living heritage of Kathmandu as their social structure is unique with the coexistence of Hinduism and Buddhism (Government of Nepal, World Heritage Centre & UNESCO, 2007). Even though Newars are the majority in the valley, each group of people have their own distinct rituals but readily accept the different beliefs and customs. There is a strong social tie amongst Newar communities in all the cities due to the guthi (Weise, 2014). A guthi is a common interest group with collective responsibilities and privileges devised to enable the individual or group of the society to fulfil his socio-religious obligations. All the community works, and activities are organised in the form of guthis. The upkeep of monasteries, temples and shrines by the guthis are done through the administration of proceeds from lands granted as endowments to deities and their temples or shrines. A Guthi Corporation was established in 1964 to consolidate all guthis to a central unit and to preserve the tangible and intangible heritage (Weise 2014). This affected the ancient management system and the will of the communities to preserve their temples, monuments, rest houses and other public spaces.

In recent times, rapid urbanisation and population growth is gradually eroding the heritage of the valley. The growing influx of migrants and booming population in the valley has led to expansion of the core leading to urban sprawl, loss of open spaces, decreased liveability and rise of concrete structures different from traditional brick structure (Shrestha, 2011; ICIMOD, UNEP & Government of Nepal, 2007; Thapa, Murayama & Ale, 2008). It has also led to conversion of otherwise homogeneous population to a heterogeneous one creating disconnect of the community with their heritage. Newar people who are the core community of the valley are now slowly moving away from the core to the suburbs leading to a gradual loss of rituals, festivals and activities.

Another issue for the conservation of cultural heritage has been natural disaster specially earthquakes. The Kathmandu Valley is vulnerable to earthquakes as Nepal is straddled between the fault lines of two tectonic plates: the Indian and the Eurasian plates. In the past massive earthquakes have occurred every 100 years or so in Nepal. The 2015 earthquake and its massive aftershocks caused enormous damages to heritage structures of cultural and religious values. Major monuments in seven world heritage monument zones were severely damaged and many collapsed completely including Kasthamandap. More than three years later, Kathmandu is now slowly reeling back from the loss of heritage structures that has greatly affected the rituals, practices and activities associated with it. The government has started the process of reconstructing the heritage structures even though there is a lot of debate regarding the construction techniques and materials being used for the reconstruction. On 14 May 2018, the Nepalese government started the reconstruction of Kasthamandap which was the oldest standing structure in Kathmandu when it collapsed on 25 April 2015. Kasthamandap was an important historic structure as it gave Kathmandu its name. The structure dated back to at least 1143 AD and was primarily a rest house due to its location at the intersection of two trade routes. However, it also served many social and religious functions such as a temple, council hall, marketplace and so on. During the observation of daily activities around the structure after the earthquake, it was seen that community members were performing their daily offerings to the gods and goddesses within Kasthamandap on the lock of the fence erected after the disaster. The fence was put up by the Kathmandu Metropolitan City immediately after the earthquake to protect the structure from either vandalism or destruction. Figure 3 shows the Kasthamandap before and after the earthquake. Besides these daily rituals, various annual festivals take place in Kasthamandap which are performed by the guthis. Three major guthis were identified with Kasthamandap after interviews with the local community members. Out of the three guthis, one has ceased to exist due to the community members moving away from the core area to the suburbs and the lack of interest from the younger generation. The second guthi is the Ta Chata Guthi and the third is the Sa Guthi. Members of these guthis are from different castes of the Newar community. Interviews with these two guthis were undertaken to understand the role of heritage after the destruction of Kasthamandap.
Intangible heritage such as festivals and *jatra* (procession) that took place in Kathmandu after the 2015 earthquake played a significant role in helping people cope and adapt after the disaster. Soon after the earthquake, the Indra Jatra festival took place in the core of Kathmandu. This festival is the most important collective festivity of Kathmandu. It is celebrated in August-September every year at the end of the rainy season (Toffic, 1990). The festival lasts for eight days and during this occasion a massive chariot is pulled by a huge procession that circumambulates the ritual path of the city. After the earthquake, it was very difficult for the organizing committee to continue the festival as many structures that were an important part of the festival were destroyed by the earthquake. The Maju Dega temple from where people would watch the spectacle of the festival was completely destroyed, the Trailokya Mohan temple where an important re-enactment of god Vishnu is performed is now in debris and the Kumari Ghar which is home of the living goddess of Nepal is still propped up with timber supports. Figure 4 shows the Trailokya and Maju Dega temples before and after the earthquake. The narrow alleyways through which the chariot is pulled was also in precarious state due to collapsed structures and the supporting poles of the houses. Despite these difficulties, the festival was celebrated as it is an inseparable part of the lives of Nepalese people. Energy of the people witnessing the festival and the pride they had towards their heritage was much more after the earthquake which was remarkable to observe. These festivals essentially helped communities to overcome the traumatic experiences of the earthquake. All of this highlights the importance of cultural heritage for the Kathmandu Valley both in the recovery and redevelopment of the site.

**5. Results and findings**

This section is divided into two sub sections. Sub section 5.1 presents the results of the questionnaire surveys conducted with homeowners and stakeholders and semi-structured interviews conducted with stakeholders. Sub section 5.2 presents the results of the interviews conducted with the *guthis* associated with Kasthamandap. This ultimately can lead to incorporate heritage in the redevelopment of areas damaged by a natural disaster.
5.1 Role of heritage a disaster
This section presents perception of the participants about the role of heritage after a disaster. The first part presents the results of the questionnaire surveys with homeowners and stakeholders and the second part presents the results of the interviews with stakeholders. The questionnaire survey asked questions on the role of heritage in redevelopment of the site, importance of tying the redevelopment with the cultural heritage of the site and role of heritage in maintaining the social and cultural values in redevelopment process. Participants were also asked to rate their opinion (strongly disagree to strongly agree) about two statements: ‘Heritage helped me to reconnect with the community after the earthquake’ and ‘Community should be an active part of the redevelopment process’. Figure 5 illustrates the perception of homeowners and stakeholders in both Kathmandu and Lalitpur. High mean value of all the variables highlight the role of heritage after a disaster. Only the statement – heritage helped me to reconnect with the community after the earthquake had a lower mean score compared to other variables. Overall, the role of heritage is considered important in the aftermath of a disaster by both homeowners and stakeholders. Role of heritage in the redevelopment of the site had the highest mean score for both group of participants in Kathmandu (Homeowners = 4.75 and Stakeholders = 4.72) and Lalitpur (Homeowners = 4.42 and Stakeholders = 4.61). Participants considered it important to tie the redevelopment with the cultural heritage of the site along with the importance of heritage in maintaining the social and cultural values in the post-disaster setting as seen from figure 5. This shows that the community understands the role of cultural heritage in the redevelopment of the site after it was destroyed by the earthquake. The responses were very similar for both the sites. Participants also believed that the community should be an active part of the redevelopment process. The survey findings confirm that the community is an essential part of the living heritage of the valley and their role should be highlighted. The government of Nepal should focus on involving them in the redevelopment process. For a living heritage site like the Kathmandu Valley, religion-based activities such as rituals, worship, prayers and just the daily religious activities are important and provide a great deal of comfort, direction and sense of stability (Bhandari, Okada & Knottnerus, 2011). This was seen after the earthquake where these intangible heritages helped the community to reconnect with the members of their society and cope and adjust after the earthquake. This can also be seen from the questionnaire survey as both group of participants in Kathmandu and Lalitpur have given it a high mean score.

Figure 5. Perception of heritage after the disaster by the participants of Kathmandu and Lalitpur

A t-test of the surveys was also done to see if there was any difference in the opinion of homeowners and stakeholders. It is interesting to note that the opinions of homeowners and stakeholders did not vary much. There
was a difference in opinion of homeowners and stakeholders of Kathmandu for only the statement - heritage helped me to reconnect with the community after the earthquake \(t(82.462) = 1.959, p < 0.05\). Homeowners agreed more with the statement than stakeholders. This maybe because homeowners have stronger connection with the site and community than stakeholders. There was no difference in the opinion of homeowners and stakeholders for Lalitpur. Both groups have similar opinions. The similarity in opinions of both homeowners and stakeholders for both the sites further highlights the role and importance of heritage after the earthquake.

Stakeholder interview results reconfirm that heritage should be as much a priority in the recovery and redevelopment of the site as the infrastructure. Participants shared that the heritage helped communities to come together and maintain the social and cultural values. It acted as a coping mechanism for the communities. In the study of disasters and other extreme events, the concept of coping can be defined as people and groups’ reactions to and connections with the wider society in the face of stressful situation (Bhandari, 2014). One of the academics summarised the opinion of many when he said:

> Heritage played a major role in bringing communities together and reuniting them after the earthquake. It helped them to continue with their daily activities. The daily rituals that people do every morning in the temples and monuments helped them to forget about the destruction of the earthquake (Participant #A3).

With the destruction of heritage structures, community’s usual connection to the site was disrupted as they could not continue with the socio-cultural activities. However, resilience of the people and their determination to continue with the activities shows the significance of cultural heritage for the community. This was noted by a community leader from Kathmandu:

> The earthquake destroyed so many heritage structures. We were not able to continue our religious rituals and activities, but this did not deter the community. They continued with their rituals and activities even if the temple was destroyed. The idol of the god is there and that is more important. Nothing disrupted the community in continuing with the activities (Participant #LC1).

Continuity and participation of communities after the earthquake in socio-religious activities emphasise the role of heritage in bringing communities together as a community leader from Lalitpur noted:

> The heritage helped people to continue the social and cultural values. It helped them to adapt after the earthquake. After the earthquake, we made a lot of changes to our festivals and processions, but we did continue it. This ensured the social and cultural continuity. Sring Bhedi Jatra is an example of this. It was difficult to organise this procession due to earthquake, but the community still wanted to continue it. After consultation with the community, we were able to organise it but with modifications to the length and route of the procession. This showed that the community is willing to make changes to continue with their cultural heritage. This also shows that heritage helped people to come out of the traumatic situation and bring communities together. (Respondent #LC2).

One of the points stressed by stakeholders was about the importance of heritage spaces and structures in the recovery phase. Rapid and mostly unplanned urbanisation has led to conversion of open spaces into multi storied concrete structures. It has also led to the encroachment of such spaces by different commercial activities such as parking, vendors and so on. Due to the lack of open spaces in the core of the cities, spaces around the tangible structures such as temples and monuments were used by community to congregate after the earthquake. One of the members of local community put it:

> Every temple has an open space around it and in some cases, those were the only open spaces in our neighbourhood. People started to congregate in these open spaces after the earthquake and reconnected with their community (Participant #LC9).
One of the academicians noted that the use of *patis* (resthouses), temples and the open spaces around the heritage structures during the disaster response and recovery phase further highlighted the importance of heritage structures for a living heritage site like the Kathmandu Valley.

Heritage helped people adapt to the aftermath of disaster and helped in the immediate recovery. People used the open areas around the temple, patis and other spaces with the heritage site to protect themselves from the aftershocks. It is interesting to see that people used these spaces because they felt that it was their heritage (Participant #A1).

Both questionnaire surveys and stakeholder interviews emphasised the importance of heritage after a disaster. Heritage usually takes a back seat during the redevelopment phase, but the interview findings show that it should be on the forefront of the discussion.

### 5.2 Role of heritage after a disaster: a case of Kasthamandap, Kathmandu

In addition to stakeholder interviews, interviews with *guthis* were also conducted to understand the role heritage played after the earthquake especially for *guthis* as they play an essential role in the conservation of heritage in the Kathmandu Valley. Interviews were conducted with two *guthis* associated with Kasthamandap to understand the links between each *guthi* with Kasthamandap, the role heritage played after the earthquake and how they adapted their rituals to give continuation to the festivals even after the complete destruction of the structure.

Ta Chata and Sa Guthi celebrate annual festivals in Kasthamandap. These are celebrated according to the lunar calendar of Nepal. Ta Chata Guthi is believed to be 1,135 years old and consists of 60 members of Tamrakar caste living in Piganani tole. This *guthi* celebrates an annual almsgiving festival where they offer alms to the priests of Bajracharya and Shakya caste. It takes place over three days. On the first day, they cook rice on the North West corner of Kasthamandap and keep it overnight by offering *puja* (worship) to it. On the second day, they take it out and again perform *puja* to the rice. The offering of alms is done in a *mandap* which is raised platform made from four planks of wood. Rice is then offered to the priests. Figure 6 shows the worship of rice to be offered to the priests and rice being offered to the priests. On the third day, the eldest member of all 60 households is served with rice pudding. This is performed in the house or courtyard of the group that is performing the event. Every year a group of ten people are given the task of performing the almsgiving festival. The eldest member of this group of ten is given the task to take care of vessels needed to cook the rice. This annual festival took place after the earthquake however the rituals had to be adjusted and modified due to the complete destruction of Kasthamandap. Cooking rice on the North West corner of Kasthamandap was not possible so the community members built a temporary structure out of bricks from the collapsed structure. The offering of alms could not be performed in its initial location due to the fencing of Kasthamandap. Despite all these setbacks, *guthi* members celebrated the almsgiving festival with great vigour. Members of the *guthis* mentioned how after the earthquake, they were in a dilemma whether to continue with the festivals but the enthusiasm of members of the *guthi* encouraged them to continue with it despite all the hurdles. Continuation of the intangible heritage after the earthquake was important for the *guthi*. *Guthi* members also acknowledged that the festival allowed them to reconnect with other members of the *guthis* after the earthquake.
The second guthi is Sa Guthi which consists of 27 members of Jyapu caste living in Bhimsensthan tole of core Kathmandu. This guthi performs an annual flag hoisting festival at Kasthamandap. Initially the event took place over six days but now it has reduced to two days due to the lack of interest shown by the younger generation to continue with the rituals needed to be performed over six days. This festival is a great example of the camaraderie between different castes of Newar community. Different activities take place in two days which are performed by different castes. On the first day, a cow is bought from a city on the outskirts of Kathmandu and kept in the house of eldest member of the guthi. A stove is built on site to cook fodder for the cow. This is unique as 32 bricks are used to make the stove and the wheat for the cow also must measure 32 pathi, 32 mana and 32 mutthi according to Nepalese metric system. Next day a water vessel is worshipped at the platform located on the North West corner of Kasthamandap by the priests of Karmacharya caste, while the cow is worshipped by the priests of Rajopadhyay caste. The flag on top of the Kasthamandap is hoisted on this day by members of Manandhar caste to the sound of music played by Khadgi caste. A puja is performed at the pinnacle where local sweetmeats are offered to gods from all four directions of the roof. Figure 7 shows the fodder being offered to the cow and hoisting of the flag on top of the temporary structure built after the earthquake. According to the members of the guthi, this festival has been taking place ever since Kasthamandap was constructed. The amount that is received by the person who climbs and changes the flag has not changed till date. Kasthamandap completely collapsed in the earthquake so climbing and changing the flag was not possible. However, the government authorities had built a temporary structure to protect the idol and the guthi members used this structure to put the flag on top. Also, they changed the location to perform the activities but still completed all the activities of the festival. Members of the guthi mentioned how this festival helped community to understand the importance of Kasthamandap and that the reconstruction of it is essential for community. The interview highlighted the significant role that the heritage played in helping the community cope with the disaster and adapt to it despite the destruction of the physical structure.
Both Ta Chata Guthi and Sa Guthi acknowledged the role heritage played after the earthquake and how it is important to highlight its role in bringing communities together after the earthquake. Both guthis have kept the festivals associated with Kasthmandap alive even if the structure itself collapsed. This highlights the importance of heritage in a post-disaster setting.

6. Discussion and Conclusion

There is limited research about the implications of heritage for the recovery and redevelopment of sites damaged by a natural disaster. This paper attempts to fill this gap by focusing on heritage after the earthquake in Nepal. Our findings indicate that cultural heritage provided the primary framework for making sense of and responding to the earthquake. According to the participants, role of heritage in the redevelopment of the site ranked high with homeowners and stakeholders of both Kathmandu and Lalitpur. Stakeholder interviews also stressed about the role of heritage especially intangible heritage such as festivals and processions in helping communities to cope with the uncertainties and challenges posed by the earthquake.

Participants agreed that heritage helped them to reconnect with the community members and maintain the social and cultural values after the earthquake. The socio-religious activities that communities perform everyday along with the festivals and processions that take place in the site helped communities to reconnect with other members of community. The 2015 earthquake was a traumatic experience for the people of Nepal, and it had a disastrous impact on people’s socio-economic condition as well as the environment. Even with all these difficulties community members continued with their daily rituals, celebrated the annual festivals and participated vigorously in all the cultural activities. Immediately after the earthquake most of the festivals could have been cancelled due to the traumatic experience of the disaster. However, community wanted to make changes to the festivals rather than cancel the festivals. Participants mentioned how they were willing to make changes to their culture to continue with it. This could be seen in the daily worship of the gods and goddesses even after the total collapse of the temples, celebration of the annual festivals in the narrow alleyways even with the obstruction caused by the support structures and just the daily activities that took place in the public spaces that have the remnants of the earthquake. The adaptation of their practices, activities and rituals after the earthquake to ensure its continuity emphasises the importance of heritage. This also helped maintain the social and cultural values of the site.
This study also highlights the important role *guthis* play in the heritage conservation. *Guthis* are important not only for the conservation of heritage in the valley but also to speed up the decisions made during an emergency. The continuation of rituals and festivals by *guthis* of Kasthamandap show that *guthis* now need to move from a tokenistic participation to a more empowered role.

Despite its clear importance, cultural heritage continues to be overlooked when thinking about disaster management for historic cities. Cultural heritage is often seen as a burden rather an asset. However, findings from the Kathmandu Valley unfold important insights that cultural heritage should rank highly in the post-disaster recovery and redevelopment phase. There must be an explicit acknowledgement of the way heritage can help community. Natural disasters will occur and continue to affect cities all over the world. The important aspect to understand is how we can mitigate the impact and assist communities after the disaster. Cultural heritage can be a valuable resource in achieving both. The evidence generated from the research can assist in the disaster management system of the cities in terms of recognising the role of heritage in a post-disaster setting.

References

Baer, N.S. (1991). Assessment and management of risks to cultural property. In N.S. Baer, C. Sabbioni & A.I. Sors (Eds.), *Science, Technology and European Cultural Heritage* (pp. 27-36). Oxford: Butterworth-Heinemann.

Bhandari, R.B. (2014). Social capital in disaster risk management; a case study of social capital mobilization following the 1934 Kathmandu Valley earthquake in Nepal. *Disaster Prevention and Management, 23*(4), 314-328.

Bhandari, R.B., Okada N. and Knottnerus, J.D. (2011). Urban ritual events and coping with disaster risk a case study of Lalitpur, Nepal. *Journal of Applied Social Science, 5*(2), 13-32.

Donaldson, M.W. (1998). The first ten days emergency response and protection strategies for the Preservation of historic structure. In D.H.R. Spennemann and D.W. Look (Eds.), *Disaster Management Programs for Historic Sites* (pp. 25-30). San Francisco, California: U.S. National Park Service, Western Chapter of the Association for Preservaion Technology and Charles Sturt University.

Eyre, A. (1999). In remembrance: post-disaster rituals and symbols. *The Australian Journal of Emergency Management, 14*(3), 23.

Fields, B., Wagner, J. and Frisch, M. (2014). Placemaking and disaster recovery: targeting place for recovery in post-Katrina New Orleans, *Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 8*(1), 38-56.

Government of Nepal, World Heritage Centre and UNESCO-Kathmandu Office (2007). *Integrated Management Framework. Kathmandu, Nepal.*

Government of Nepal (2015). *Post Disaster Needs Assessment, Vol. B: Sector Reports. Kathmandu.*

Hollow R. and Spennemann, D.H.R. (2001). Managing sites of human atrocity. *Cultural Resource Management, 24*(8), 35-36.

ICIMOD, UNEP and Government of Nepal (2007). *Kathmandu Valley Environment Outlook. Kathmandu, Nepal: International Centre for Integrated Mountain Development. Retrieved 9 June, 2018, from http://www.unep.org/pdf/KathmanduValleyOutlook.pdf*

Kathmandu Valley Development Authority (2016). *Vision 2035 and Beyond 20 Years Strategic Development Master Plan (2015 - 2035) for Kathmandu Valley. Kathmandu, Nepal.*

Langenbach R. (2001). A rich heritage host: the Bhuj, India earthquake. *Cultural Resource Management, 24*(8), 30-35.

Mackee, J., Haugen, H.A. and Askew, L. (2014). Recovering cultural built heritage after natural disasters. *International Journal of Disaster Resilience in the Built Environment, 5*(2), 202-212.

Maio, R., Ferreira, T.M and. Vicente, R. (2017). A critical discussion on the earthquake risk mitigation of urban cultural heritage assets. *International Journal of Disaster Risk Reduction, 27*, 239-247.

Nelson, C.L. (1991). *Protecting the Past from Natural Disasters.* Washington DC: National Trust for Historic Preservation.

Shrestha, B. (2011). Street typology in Kathmandu and street transformation. *Urbani Izziv, 22*(2), 107-121.

Silva, K. (2015). The spirit of place of Bhaktapur, Nepal. *International Journal of Heritage Studies, 21*(8), 820-841.

Spennemann, D. (1999). Cultural heritage conservation during emergency management: luxury or necessity? *International Journal of Public Administration, 22*(6), 745.
Spennemann, D.H.R and Graham, K. (2007). The importance of heritage preservation in natural disaster situations. *International Journal of Risk Assessment and Management*, 7(6/7).

Stovel, H. (1998). *Risk Preparedness: A Management manual for World Cultural Heritage*, Rome, Italy: International Centre for the Study of the Preservation and Restoration of Property.

Suri, K. (2018). Understanding historical, cultural and religious frameworks of mountain communities and disasters in Nubra valley of Ladakh. *International Journal of Disaster Risk Reduction*, 31, 504-513.

Thapa, R.B., Murayama Y. and Ale S. (2008). Kathmandu. *Cities*, 25(1), 45-57.

Thornburg, P.A., Kniottnerus J.D. and G.R. Webb (2007). Disaster and deritualization: A re-interpretation of findings from early disaster research. *The Social Science Journal*, 44(1), 161-166.

Toffin, G. (1990). Mythical and symbolic origins of the city - the case of the Kathmandu valley. *Diogenes*, 152, 101-123.

UNESCO (1990). *Third medium term plan 1990-1995*. Retrieved 15 July, 2017, from http://unesdoc.unesco.org/images/0008/000825/082539eb.pdf.

UNESCO (2015a). *Tangible cultural heritage*. Retrieved 4 February, 2016, from http://www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage/.

UNESCO (2015b). *Intangible cultural heritage*. Retrieved 2 February, 2016, from http://www.unesco.org/new/en/cairo/culture/intangible-cultural-heritage/.

UNESCO (2016). *The Kathmandu valley*. Retrieved 2 March, 2016, from http://whc.unesco.org/en/list/121/.

UNISDR (2009). *UNISDR terminology on disaster risk reduction*. Geneva, Switzerland: United National International Strategy for Disaster Reduction (UN/ISDR).

Weise, K. (2014). Management of living urban world heritage: Kathmandu Valley. *Context*, 10(2), 125-134.

Wenger D.E. and Weller, J.M. (1973). *Disaster subcultures: the cultural residues of community disaster*. Retrieved 12 April, 2017, from http://udspace.udel.edu/bitstream/handle/19716/399/PP9.pdf?sequence=3&isAllowed=y.

Yin, R.K. (2014). *Case study research : design and methods*. Thousand Oaks, California: SAGE.