Interpreting urban ritual event as a means of activating the process of risk communication; A case study of Kathmandu, Nepal

Roshan Bhakta BHANDARI[1] and Norio OKADA[2]

[1] PhD Student, Department of Urban Management, Graduate School of Engineering, Kyoto University
[2] Professor, Disaster Prevention Research Institute, Kyoto University

The present study tries to analyze urban ritual event in Kathmandu as a town watching exercise where residents participate in a parade around city spaces. Study findings show that people observe different elements of urban built environment during the ritual event and not only get acquainted with their current status but also get involved in upgrading those which are deteriorated. The social impact of this ritual event in the community and its potential role in building awareness about existing natural disaster risk by observational learning is investigated through a field survey in the study area. The later part of the study further explores the prospect of urban ritual event as a means of activating the process of effective risk communication for seismic vulnerable urban communities in Kathmandu.

Key Words *: risk communication, town watching, urban ritual, observational learning*

1. Introduction

Urban rituals mark the annual calendar of inhabitants in the culturally rich communities of Kathmandu Valley. The residents from different neighborhoods come together on city open spaces to participate in and celebrate the event. Little thought has been given by emergency mangers and disaster professionals about the possible use of these events in communicating disaster-related risks to the citizens and influence their behavior in a long run. This study attempts to examine this aspect of urban ritual and its scope as a medium to activate the process of risk communication. The traditional urban community at Lalitpur, Kathmandu Valley is used as a case study because of its good repository of cultural heritage like rituals and its experience of disaster such as earthquake. The analysis of urban ritual as a potential tool for communicating risks to local people over space and time is based on participant observation, interviews and questionnaire survey during a short field stay by the author.

2. Observational Learning and Urban Ritual

Bandura (1977) in observational learning mentions seeing and hearing as symbolic representation which influences human thought and action. It will be exceedingly laborious to learn if people have to rely solely on the effects of their own actions to inform them of what to do. Fortunately, most human behaviour is learned observationally through modelling: from observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action. While explaining how new response structures are acquired by observation Bandura (1977) argues that psychological functioning is neither driven by inner forces nor buffeted by environmental stimuli. Symbolic, vicarious, and self-regulatory processes assume a prominent role. In his model, behavioural, environmental and other personal factors, are interlocking operational determinants of each other, with the level of influence of one or another of these factors varying, depending on the situation.

The sub processes that influence the degree and content of observational learning are: (a) attention, (b) retention, (c) reproduction and (d) motivation (Fig.1).

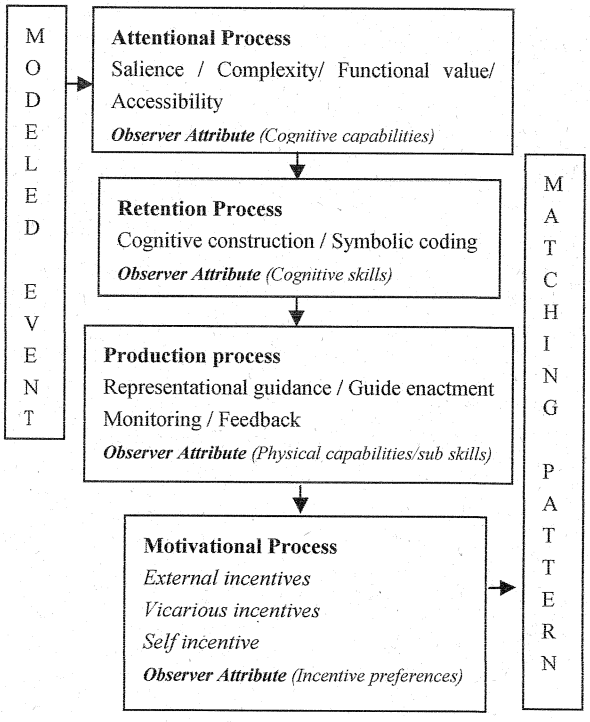

Fig 1 : Mechanisms governing observational learning
(Source: Bandura,2001)

In the attention process a person uses cognitive skills, preconceptions and value preferences to selectively observe the features of modeled event. The salience, attractiveness, functional value of model activity and access through human interactions determine the modes of behavior that will be

learned in the model event. People can't be influenced by the observed event if they don't remember them. This retention process involves a symbolic transformation of modeled information into memory codes which they can recall later. The third component of observational learning phenomena involves the utilization of symbolic representations of the modeled pattern in the form of imaginal and verbal content to guide performances. Finally, a person needs favorable incentives to transform the retained behavior into action. A person may acquire, retain and possess capability to execute behavior but the learning is rarely activated into performance due to inadequate incentive. People are likely to exhibit modeled behavior if their outcome is rewarded and they personally find it self satisfying. Also, success of others similar to themselves also motivates them to adopt the behavior.

Natural disaster like earthquake occurs in a long time gap and bring sudden catastrophe, thus communicating about such risk is very complex. People tend to disregard the safety measures dictated to them as they think natural catastrophe may not occur in their lifetime. In order to motivate and sustain some protective behavior among residents, a model event for observational learning that repeats in a regular cycle can be an ideal approach. Urban ritual event conducted in a repeated annual cycle, inviting a large number of participants in parading and informal interaction around urban open spaces has a prospect to serve as a means for risk communication and observational learning.

Regarding the concept of urban ritual and its relationship to risk communication and observational learning, it would be useful to elaborate the case study on urban ritual in Lalitpur city.

3. Case Study: Lalitpur Area, Kathmandu

Lalitpur, one of the old cities within Kathmandu Valley, is a dense urban area. The total area of Lalitpur municipality is 15.4 square kilometres and constitutes a total of 22 wards. The population density varies from around 540 person per hectare (pph) in the core area up to 46 pph in the outlying areas of new urban development (LSMC, 2008). The present study focuses on densely inhabited areas of Ward 16 and 18 of Lalitpur City with a total household of 989 and 1287 respectively. It is predominantly inhabited by indigenous `Newar` people on housing clusters laid out around open courtyards. Similar to other Newar settlements, it is common to observe regular cultural function like ritual in the study area. In one of the annual ritual procession, man made chariot is pulled along the city streets involving a wide participation of local residents. Most of these processions circumambulate the dense city areas connecting several ordered spaces within Lalitpur such as outer city spaces, courtyards within residential accomodations and wider street nodes along the route. The configuration of chariot festival route (*Machhendranath jatra*) and palanquin festival (*Bhimsen Jatra*) is shown in Fig.2.

It can be argued about the scientific meaning of trivial things like urban ritual in risk communication. However, a ritual parade can be conceived as town watching event where people participate in a group walking along different open spaces within the city.

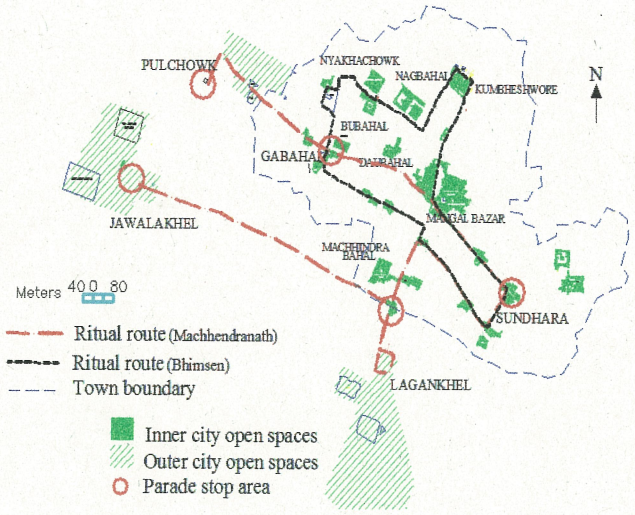

Fig 2: Ritual routes and open spaces in Lalitpur, Nepal
(Base map Source: KVMP, 2001)

4. Findings: Urban ritual, town watching and the scope of observational learning

Town watching uses observation as a tool in the process of raising the level of awareness of participants about their surrounding (Ogawa et.al, 2005). Before drawing an analogy between ritual event and town watching it is important to explain the ritual event in more detail. The voluntary participation of residents in walking around the city along with a mobile chariot is the major component of ritual event named *Machhendranath*. The event is stopped at several areas where participants from respective neighborhoods gather to pay homage to the ritual chariot. As a part of the event, citizens organize combined catering at their own neighborhoods. Active interpersonal communication takes place along the parade route in front of households and open courtyard within accommodations. Sufficient scope exists for participants to observe and interact with the built environment which is the prime aim of town watching. It also provides an opportunity for behavioral learning through different sub processes of attention, retention, production and motivation.

During the ritual parade, live audiences gather willingly on city streets to observe a 65 feet tall chariot which becomes the focus of attraction. This setting of the event draws attention of participants and they get involved in the observational learning. Through this process, participants develop mental maps by perceiving space and such spatial cognition is a vital skill for disaster/emergency planning. The ritual parade helps people to understand area's geography, which allows them to focus their attention on how to evacuate during disasters such as earthquake or fire. An extensive field survey was carried out among local respondents to check whether rituals helped to build awareness about various open spaces and routes.

Around two hundred and eighty five local respondents of Wards 16 and 18 of Lalitpur City were asked, 'where will you evacuate during earthquake or fire?'. More than a half of the respondents (57.2 percent) replied that they would evacuate to city open spaces (most of them located along the parade route). Among the other responses are; private courtyards within accommodations (20.4 percent), kitchen yards (13 percent), school yards (1.8 percent) and 7.7 percent mentioned they don't want to evacuate. The survey result hints that many residents are aware about city open spaces for evacuation during disaster. In order to identify whether the familiarity of these spaces is related to involvement in ritual, the respondents were asked 'What keeps them familiar with the open spaces?'. The largest number of respondents (around 37 percent) mentioned that social activities like rituals make spaces familiar to them. The other reasons included are; proximity of open spaces (26 percent); location of landmark feature like rest houses or memorials (21 percent); opportunity of daily interaction on open space (15 percent). The result suggests that ritual has a strong impact on local people to build a mental image of urban open spaces.

This finding has been made further robust by a participatory mapping exercise organized by one of the authors with respect to open spaces and evacuation routes among a group of local people and members from community disaster management committee in Ward 16 and 18 of Lalitpur (Fig. 3). The mapping exercise was facilitated by one of the authors along with representative from local NGO, NSET (National Society for Earthquake Technology) and building safety expert from city municipal office of Lalitpur. While mapping the access to the identified evacuation spaces in the neighborhoods most of the participants chose the route from their place of stay which basically matches part of the ritual route in the city. People are well acquainted with the route for several reasons. Firstly, being a ritual route it is the most auspicious pathway which exists in the memory of people. Besides, repeated participation in ritual event that leads through different open spaces are likely to influence residents' cognitive capability via a cumulative process of observational learning which may have led to retention of observed phenomenon.

Motivation to preserve the open spaces is observed during informal interviews by one of the authors with residents in the study area. Routinely cleaning and maintenance of multi functional open spaces is carried out by residents. These spaces are used not only for daily interactions but also to conduct several ritual functions like chariot pulling. The moral conduct developed by the social norm which regards space encroachment as a crime is the self incentive that motivates people to engage in this behavior. From these findings we may well claim that the urban ritual as a model event has initiated and continuously contributed to the behavioral learning process and reinforced social action to preserve open spaces that are useful during disasters.

It can be well claimed scientifically that these open spaces can serve as evacuation areas during natural disaster like earthquake. The selected open spaces by local residents as evacuation areas during participatory mapping were also agreed upon by scientific experts who included disaster scientist from a local NGO and city planners from the municipal office. The experts mentioned that the selected evacuation spaces were suitable for disaster like earthquake in terms of the availability of infrastructures such as wider roads, public shelter and public water supply. The large size of these open spaces and its close proximity from all the households made them functionally sound as evacuation spaces.

Apart form this, sufficient local support for disabled or aged people for evacuation is possible as the community is very closely knit and people are quite familiar with each other. These open spaces also overlap with areas where people carry out ritual functions. In this way, we can observe a close relationship between open spaces and ritual function which coexist with each other. This in turn enables residents by keeping them familiar with city open spaces and city routes through observational learning that are useful for life saving during disaster like earthquake.

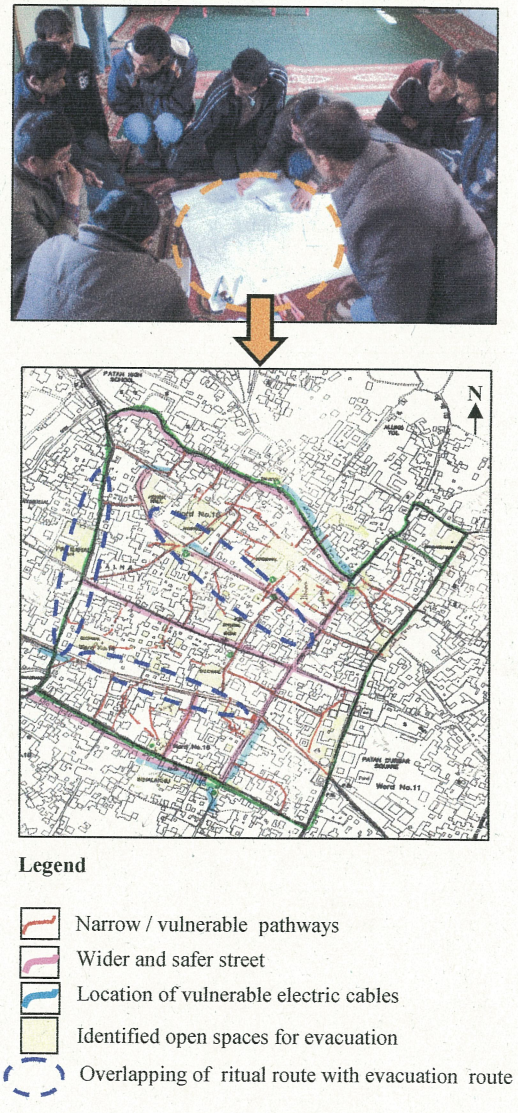

Fig 3 : Participatory mapping of evacuation spaces and routes in Ward 16 & 18 of Lalitpur, Nepal

The ritual activity is an indirect means of repeated communication and active participation for local residents to get informed about and manage their surrounding spaces such as ritual routes and open spaces. At the same time, these practices are also related to space cognition and ultimately helping to build the commuity coping capacity against catastrophic event like earthquake.

5.Conclusion

This study attempted to analyze the urban ritual in Lalitpur,Kathmandu as a model event in observational learning and risk communication. The findings suggest that urban ritual plays a significant role in building mental image of urban open spaces and motivates people in preserving these spaces. Though not designed as a risk communication medium so intentionally, there are good reasons to hypothesize that the traditionally repeated voluntary involvement of city residents annually in various city spaces over a long period of time makes it an effective platform for social marketing of disaster-related risk reduction measures, particularly effective for rare event disasters, for which common people may not be able to maintain their coping capacity against risks. Further empirical study is needed to investigate about this potential role of ritual event as a learning tool for outreaching the urban communities at risk in Lalitpur.

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