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Re-discovering Uttarkhand's Cultural Identity: Issues for consideration during post-disaster reconstruction

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Abstract

The Himalayan Flash Floods of 2013 devastated entire cities and settlements in the Garhwal region of Uttarakhand, India. Evidence suggests that rapid urbanisation, poor construction practices and a political disregard for the delicate ecosystem of the Himalayan ranges in the past few decades have all contributed towards the state's vulnerability to natural hazards. However, even a cursory examination of many of the investigations into the causes behind other past and present disasters lead to conflicting theories on the extent of human impact and remain inconclusive. Turning towards the reconstruction approaches adopted, it is realised that literature is abound with debates between traditional and modern methods. Proclamations about the superior system of construction, both traditional and modern have met with limited success owing to practical, technological and economic constraints in the hills. Besides, looking at the specific example of Srinagar it is found that even after a catastrophic history, including an earthquake 1804, floods in 1894, 1970 and 2013, the city continues to flourish and thrive. Each time the city rebuilt itself changing its identity from the 'modern' Gola Bazaar area, to the introduction of steel and cement concrete in the 80s and mushrooming commercial urban expansion post 2000 statehood. The three phases of Srinagar's (re)construction were put to the test during the 2013 floods when large swathes of development, most of it relatively recent were heavily damaged or washed away. Even in the face of such devastation, the sacred realm of Srinagar offered strong support and refuge to its people and carried them through the harsh period of recovery. This is a revelation in terms of understanding the critical feedback loop in operation within any successfully resilient system and Srinagar has certainly proven to be so through its 600 year long journey.

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Introduction - Urbanisation and Disaster in Garhwal

The Garhwal region, located in the lower Himalayan belt of Uttarakhand, India is one of the most ecologically sensitive regions in the world. It is dotted with settlements, located on historically and culturally significant pilgrimages routes in the country and is now a thriving centre for religious tourism and associated commercial activities. Srinagar is one such settlement, erstwhile capital of the Garhwal Kingdom situated in a valley next to the Alaknanda River. Home to just over 150,000 residents, it is one of the largest urban centres in Uttarakhand today, catering to a significant tourist population as well, due to its strategic location on the Char Dham Yatra.

Garhwal has repeatedly faced several natural disasters over centuries of documented history. In addition to being prone to forest fires, earthquakes and landslides (1803, 1868, 1893, 1995, etc.) Srinagar and its surroundings have also witnessed at least three major floods in recent recorded history (26 August 1894, 20 July 1970 and 16 June 2013). Studies over the years have not only attempted to determine a cause and effect relationship between natural geographic, geomorphic and hydrological phenomena, but have also looked at human interventions and their impact on the fragile ecosystem of such mountainous regions. Speculations have been made (Karan and Iijima 1985, Maikhuri 1992, Pathak 1997, Bose 2000) linking natural disasters in the region to human activities such as mining, deforestation and the construction of extensive road networks and dams. Yet, cities have continued to expand, with the population of Srinagar almost doubling between 2007 and 2013, forcing construction activity ever closer to the river edge.

The Floods-2013

The Himalayan Flash Floods of 2013 have raised questions surrounding all these issues especially considering they were “the highest in the Alaknanda valley at least during the last 600 years” (Rana et al. 2013). According to Rana et al., while the “flood of 1894 was a natural landslide-induced dam burst phenomenon...the 1970 Alaknanda flood which caused large scale damage to the life and property was undoubtedly conditioned by the large scale commercial forest felling (anthropogenically induced)”. During the 2013 floods, not only was there above average debris from receding glacier (moraines) and higher than usual rainfall, but, most critically the river edge had been developed and reclaimed to such an extent by human activity that it caused major “clogging” of the river path. Figure 1 shows the location and network of the river valleys linked affected during the floods. Figure 2 shows the drastic remodeling of the Alaknanda river channel after the floods.

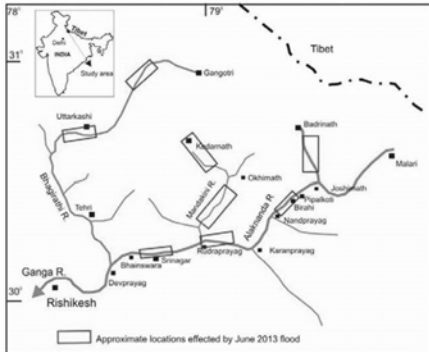


Figure 2 Map showing the Alaknanda and Bhagirathi valleys; rectangular boxes show the approximate location of flood damage

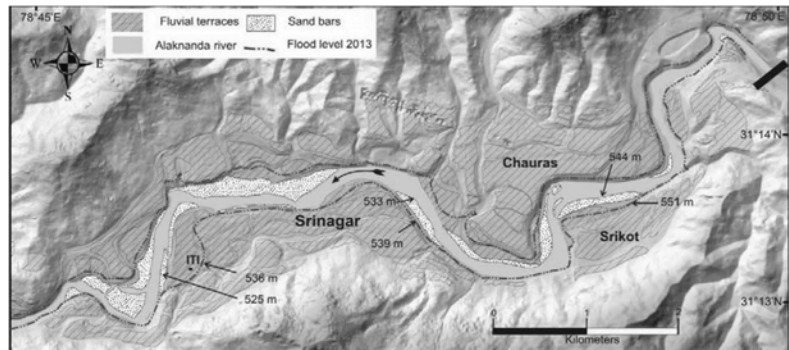


Figure 1 Extent of flood inundation around Srinagar (marked with dashed line)

Three years since the devastating floods, investigations are still underway to determine the exact mechanism of the disaster. Local governments are struggling to re-build affected areas, resurrect tourism within the area and ensure livelihoods and economic sustainability. At this stage, it is crucial to engage not only with the physical requirements of post-disaster reconstruction, but also with the greater issue of loss of regional cultural identity. In the case of Srinagar, identifying contributors to the city's urban identity is the first step to rebuilding the city.

(Re)Building Srinagar

Srinagar has not only suffered tremendous damage due to catastrophic events multiple times in its history but has more importantly *survived* through such events to go on and rebuild. It is these very phases of reconstruction that have (re) defined the building culture of this hill town and marks its transition into the thriving urban centre we see now. It is also this responsive, emergent building culture that has given rise to or reshaped the identity of such settlements.

Srinagar came into prominence as an urban settlement in the early sixteenth century as the capital of the Garhwal kingdom¹. Very few remnants from this period still survive today, these are mostly the granite temples that are also minor destinations within the overall pilgrimage routes passing through the city. During the nineteenth, the city of Srinagar was annexed by the Gorkhas² and then eventually by the British. It was around this time, in 1805, that the city was ravaged by a major earthquake, according to multiple historic records. Owing to a combination of political and natural upheavals, many of the significant structures of the city were lost forever.

¹ Garhwal Kingdom was a princely state in north-western Uttarakhand, India, ruled by the Rajput dynasty. It was founded in 888 AD. Later part of the Punjab Hill States Agency of British India, Garhwal Kingdom consisted of the present day Tehri Garhwal district and most of the Uttarkashi district. Garhwal Kingdom acceded to the Union of India in August 1949. (Wikipedia, 2015)

² Historically, the terms "Gurkha" and "Gorkhali" were synonymous with "Nepali," and derived from the hill town and district of Gorkha from which the Kingdom of Nepal expanded. (Wikipedia, 2015)



Again in 1894, heavy rainfalls led to a dam burst upstream of Srinagar destroying large swathes of the entire old city. Under the British regime, parts of the city were reportedly developed along the lines of Jaipur in Rajasthan, using 'modern' planning principles such as grid iron layout of streets, roundabouts and colonnaded markets. Evidence of this planning can be seen in the Gola Bazaar market, which forms the city centre.

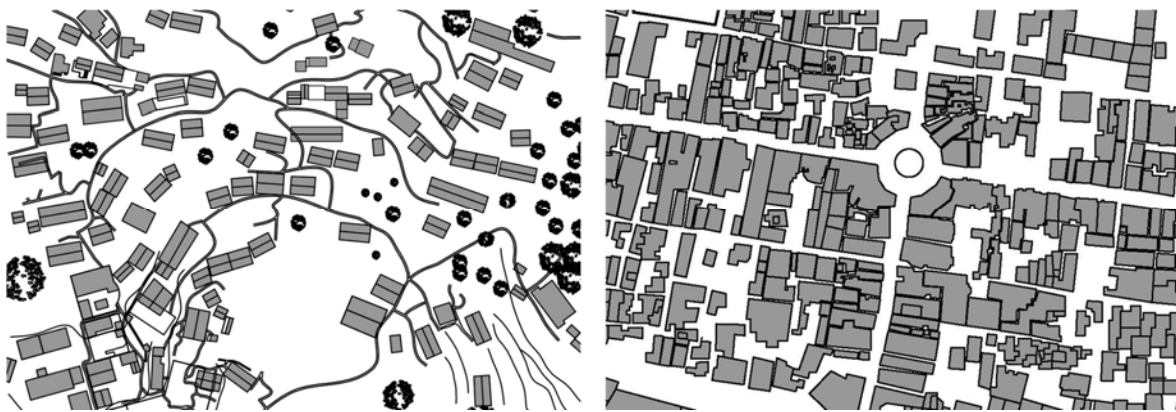


Figure 3 a. Traditional hamlet layout, b. Reconstructed Gola Bazar, Srinagar

Such regimental planning was in direct contravention to the prevalent system of small hamlets built along the contours and gave Srinagar its first cohesive 'urban' identity along with the official status of being an urban centre. This phase of reconstruction also resulted in the city extents moving further away from the river edge as a response to the flood. After this reconstruction campaign the middle of the twentieth century saw little expansion in the city, since the newly formed Garhwal district had its headquarters at the neighbouring city of Pauri.

The twentieth century events that helped shape the identity of Garhwal include the first widespread environmental movement in India, the Chipko Movement (Tewari 1995). After the 1970 Belakuchi floods³, there was a period of social protest against the rampant commercial deforestation of the hill slopes and the extensive use of timber in construction. As a result, in 1980, the Forest (Conservation) Act was passed, imposing major restrictions on the usage of timber. The following period saw the introduction of concrete and steel as primary construction materials within the entire region. Furthermore, in 2000, Garhwal and its neighbouring region of Kumaon gained independent statehood as Uttarakhand, which heralded a new phase of growth and expansion. The past two decades have thus forever changed the physical and cultural landscape of Srinagar, coupled with the rapid increase in tourism related activity. The city, with the introduction of State level Universities and Armed Forces Headquarters is no longer the sleepy town of the twentieth century and is far removed from its sixteenth century origins. Its inhabitants are largely made of villagers who have recently migrated from the upper Himalayas in search for economic opportunities, since they are no longer able to sustain their traditional livelihoods. Recent years

³ "...occurred when the commercial forest felling was at its peak in the Alaknanda valley" (Rana et al. 2013)



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have seen an explosion of transportation networks, dams and infrastructure development and industrialisation in the lower Himalayas, all of which have contributed not only to the ecological crises that confronts the region, but a severe cultural identity crisis as well.

Identity and the Sacred Realm

Discussions about an appropriate reconstruction approach are now more than ever, intertwined with debates about tradition and modernity. Many believe that evidence from past disasters⁴ clearly hints towards the need for modern, technological innovations that would be able to 'withstand' a greater degree of hazard as may be expected in the future. Many still (Langenbach, etc.) have discussed the merits of returning to a more traditional form of construction which has evolved into the sophisticated system *because* of the disasters it has persisted through. However, both approaches in themselves discount the positive contribution made by such events in the shaping of a living building culture. Such events not only question the prevalent systems but also provide an opportunity for the evolution of new systems.

Paradoxically, even though the building culture has repeatedly broken precedence, it is the intangible and sacred which have provided any semblance of continuity to this fragile landscape. As Correa 1989, describes, it is "the sacred realm" consisting of formalized religion, as well as, "popular reincarnations of ancient and contemporary myths" that can "act as potent motivators in a society." In the changing cultural landscape of Srinagar, people have invariably sought out both physical and spiritual refuge in sacred spaces during times of crisis. Many locals strongly believe that the recent construction of the dam in Srinagar which resulted in the shifting of an idol of Dhari Devi, considered as being the protector of the entire sacred landscape of Garhwal is the cause of the recent destruction. In the absence of a robust evacuation and emergency response strategy implemented by central or state authorities, several temple trusts actively initiated emergency measures by acting as temporary refuge spaces and congregation spaces for the local community. The Kamleshwar Temple near the Keshav Math in Srinagar raised funds informally to procure emergency supplies for the affected families. Post disaster, congregational prayers or 'shanti paaths' were organised on several occasions within the complex where the local community gathered to offer prayers, and often financial contributions were collected for relief. The temple itself was unaffected by the flash floods and has since then become a rallying point for the local community (Arora, 2015). This deep association with sacred spaces and rituals is further reinforced by the persistent resilience of the temple structures themselves in the face of destructive natural forces. It is for this reason that particularly religious structures have come to signify an 'original' identity for the people of Srinagar even as their social, economic and political identities are being eroded.

⁴ The 1991 earthquake evidently pointed towards the failure of traditional housing types "made up of large and small stones combined with mud, oak, pine and other logs, cow dungs, and slates"(Maikhuri 1992, Das 1993)



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Conclusions

According to the Stockholm Resilience Centre, 2015, “Resilience is the capacity of a system, be it an individual, a forest, a city or an economy, to deal with change and continue to develop.” The example of Srinagar sheds light on several aspects of fragile self-organised ecosystems, the impact of disasters, natural or otherwise on them, their response and finally their ability to cope. Investigations into the types of hazards faced by Srinagar, their natural and man-made causes and reasons behind their not always predictable impacts have so far revealed a mixed bag of evidence. Proclamations about the superior system of construction, both traditional and modern have met with limited success owing to practical, technological and economic constraints in the hills. Besides, either is far from perfect and in fact even hybrid systems are hardly triumphant in the face of catastrophic natural forces. Ironically, though the barely surviving sacred realm of Srinagar offered strong support and refuge to its people and carried them through the harsh period of recovery. This is a revelation in terms of understanding the critical feedback loop in operation within any successfully resilient system and Srinagar has certainly proven to be so through its 600 year long journey.

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Authors' Biography



Vanicka Arora is a Conservation Architect from the University of Bath. She has since worked on conservation management plans and urban revitalisation strategies in India. She is also the assistant editor for 'Context-Built, Living and Natural', a bi-annual journal by DRONAH. She is and has published papers in refereed journals and recently co-authored a Training Guide on Disaster Risk Management of Cultural Heritage in Urban Areas with Dr. Rohit Jigyasu, published by the Ritsumeikan University, Kyoto.



Manas Murthy is an Urban Designer from Cardiff University and an M.A in Sustainable Urbanism from University of Wales (TSD). During his Fellowship at The Princes Foundation for the Building Community at London he worked on collaborative planning. His research on the regeneration of traditional 'Water Towns' in Shanghai, was commissioned by Prince Charles. He is also an assistant professor at Sushant School of Art and Architecture, Ansal University. His current field of inquiry is action research on urban mobility, community engagement and spatial politics.