



Article: Issues and challenges in conservation of living monastic heritage in the trans-Himalayan region of Ladakh, India

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ISSUES AND CHALLENGES IN CONSERVATION OF LIVING MONASTIC HERITAGE IN THE TRANS-HIMALAYAN REGION OF LADAKH, INDIA

SATISH C. PANDEY, JOYOTI ROY, AND NOOR JAHAN

Ladakh's rich cultural identity is highly dependent on its institution of Buddhist monasteries known as gompas. These monasteries are religious and spiritual centers of Buddhism and are repositories of a rich art and cultural heritage. Having been at the crossroad of trans-Asian trade for centuries, Ladakh's cultural heritage and indigenous traditions reflect upon the influence from the cross-cultural exchanges from ancient Buddhist regions of Central Asia and Tibet. The exquisite wall paintings, thangka paintings (religious scroll paintings), manuscripts, and other ritual objects manifest Ladakh's unique cultural heritage. The main stakeholders of this heritage, the monastic and village communities, have limited awareness about the inherent historic, cultural, and civilizational value and importance of their own cultural heritage. This ignorance has led to lack of proper maintenance and care. Rampant unplanned modernization and civic development to promulgate tourism pose serious threats to cultural heritage. In several monasteries and other heritage monuments, traditional architecture has been destroyed and rebuilt or added using modern materials without considering their suitability and consequences in the local climate. Climate change has added to the complexities, leading to heavy rains and snowfall that have caused irreparable damage. In the absence of a consolidated heritage policy and regulations, particularly for living cultural heritage in the region, a large number of selfprofessed heritage conservation groups are carrying out conservation of monastic heritage. While some conservation attempts have been made responsibly, others have created an environment of mistrust and discomfort with the communities. This article aims to highlight some of the major issues and challenges in preservation of monastic heritage in Ladakh and discusses the need for ensuring sustainability in conservation interventions to save the invaluable cultural heritage in the region.

KEYWORDS: Monastic heritage, Living cultural heritage, Heritage conservation, Heritage Values and significance, Climate change, Neglect and vandalism

1. LADAKH: GEOGRAPHICAL AND HISTORICAL BACKGROUND

Ladakh is a high-altitude region in the states of Jammu and Kashmir. It is bound by the Karakoram mountain range in the north and the Himalayas in the south and is one of the most sparsely populated regions in India. The entire region is a cold desert and covers an area of 86,904 square kilometers with barren landscapes, limited natural resources, and settlements along the main river Indus and its tributaries (fig. 1), yet it has been home to a thriving culture for more than a thousand years. Being located on a highly important historic trade route linking Central Asia, China, Tibet, and India, the cultures and traditions in Ladakh show an amalgamation of different cultures from ancient to medieval periods (fig. 2). It is difficult to specify the exact date of arrival of Buddhism in Ladakh, but it is presumed to have come into contact with Tibet in the 7th century (Luczanits 2005). Kaul (1998) points that Buddhism and Hinduism coexisted in the region from the 8th century with cultural influences from Persia and western central Asia. However, with the establishment of Muslim rule in Kashmir in the 14th century, Ladakh turned to Tibet for all the cultural and religious purposes, which led to greater influence of Tibetan culture on that of Ladakh.

This high-altitude region remained closed to the world until the mid-1970s, when the first roads were opened via Srinagar (in Jammu and Kashmir) and Manali (in Himachal Pradesh) and many travelers, both Indian and foreign, explored the region and gradually exposed the mystical landscape and sociocultural practices of the region. There are several travelogue accounts of these journeys and what they revealed. After the 1980s Ladakh became an important location for adventure tourism owing to its natural landscape, wild rivers, and picturesque mountains, gradually making tourism one of the mainstays of earning in the urban centers. Nevertheless, some areas are still dependent on oasis

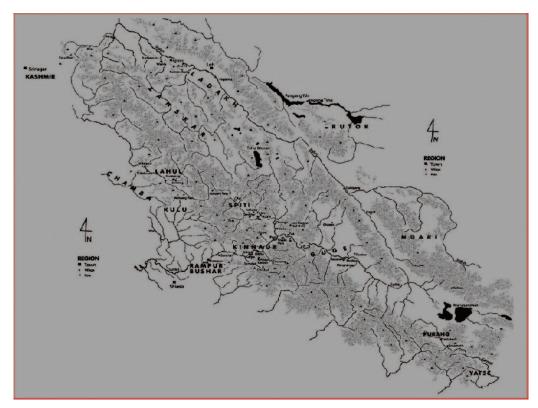


Fig. 1. Map showing geographical location of Ladakh (Courtesy of Joyoti Roy)



Fig. 2. A typical village with a monastery in the middle and traditional mud houses (Courtesy of Joyoti Roy)

cultivation and animal rearing. Ladakh inherently has a treacherous climate most of the year in which indigenous communities strive to sustain themselves with minimal resources.

The geographical isolation of the region allowed it to preserve its culture. Historic trade not only developed the area's economy but also facilitated cultural and social interactions and influences. Since India's independence, Ladakh is politically a semi-autonomous region comprising of two districts—Leh and Kargil. Leh is the capital city of Ladakh and the Ladakh Autonomous Hill Development Council (LAHDC), and the State Government of Jammu and Kashmir are responsible for its administration and governance.

2. MONASTIC HERITAGE OF LADAKH

Ladakh's cultural heritage is phenomenal and incredibly diverse. The constant contact with the cultures of its neighboring regions for centuries has resulted in a high degree of influence on the indigenous cultures and traditions. There is a visible Tibetan contribution, which has manifested in its monasteries, monuments, art forms, oral cultural traditions, folklore, festivals, and language. The earliest Buddhist heritage of Ladakh comprises of petroglyphs, *stūpas*, ancient rock carvings, and inscriptions that are found scattered throughout the region. Monastic establishments, fortresses, *thangka* paintings, manuscripts, ritual objects, and decorative elements in architecture, particularly wall paintings and wood carvings, are all exemplars of the rich artistic heritage of the region and markers of a vibrant history.

Buddhist monastic establishments of all sizes are spread across the region. Smaller monasteries are administratively set up under larger head monasteries of Buddhist sects¹. Each sect has a religious leader and a set of teachings and practices that are propagated through monastic establishments. In ancient times the strategic positioning of monasteries was crucial, often much away from civilization, in the form of hermitages. The monasteries are either located on the slope of hills/mountains or in some cases on the flat ground in the middle of the village. Often monasteries are accompanied by other minor religious structures such as village protective shrines (*lhatos*), votive rock installations (Mani walls²) and *chörtens* (stūpas meant for storing reliquary remains or as votive structures). Most monasteries are imposing structures and are a testament to the architectural knowledge and competencies of the historic civilizations. They often expand organically as the needs and requirements of the establishment grow. These monasteries contain temple chambers and residential buildings where Buddhist monks live, study and practice their religion (fig. 3). The Buddhist temples within monastic establishments are dedicated to specific Buddhist deities and are profusely painted on their interiors with schematic wall paintings. Each temple also has images of deities sculpted in clay and painted, which is a traditional art form of Ladakh (fig. 4). Buddhist monasteries are the main repositories of heritage antiquities and artifacts and are testimony to the powerful cultural links of the past. Most of these monasteries are profusely decorated with wall paintings on their interiors and house a significant number of thangka paintings, manuscripts and documents, masks, exquisite costumes and textiles, wooden articles, and leather objects. (figs. 5-7). Most of the artifacts are usually part of daily monastic rituals and rites.

3. ISSUES AND CHALLENGES IN CONSERVATION

The Buddhist monasteries in Ladakh have been in constant use by the community and are central to religious and cultural practices. These repositories of cultural heritage are facing numerous challenges and many of them have undergone irreparable damage in the recent past. The issues and challenges of conservation of cultural heritage in Ladakh arise not only from the material aspects of objects and sites themselves, but also from their societal context and the functions they serve. There are several factors that

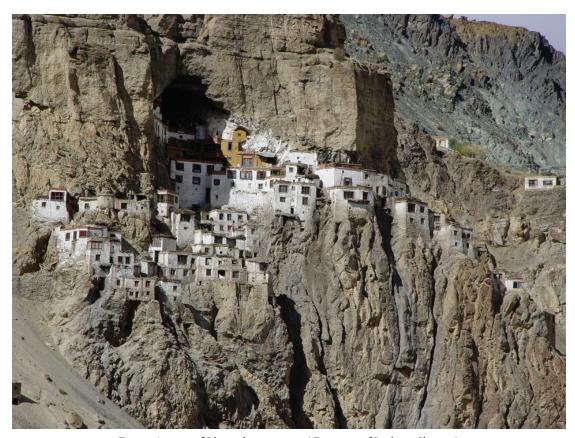


Fig. 3. A view of Phugtal monastery (Courtesy of Janhwij Sharma)



Fig. 4. Painted clay sculptures in Buddhist temples (Courtesy of Satish Pandey)



Fig. 5. Buddhist manuscripts in Phyang Monastery (Courtesy of Satish Pandey)



Fig. 6. Traditional thangka (scroll) paintings, Phyang Monastery (Courtesy of Satish Pandey)



Fig. 7. Wall paintings on mud plaster, Bardan monastery (Courtesy of Joyoti Roy)

contribute directly or obliquely to their deterioration and some of the most prominent causes are highlighted in this article.

3.1 EXPANSIVE TOURISM

The urban and rural centers of Ladakh have transformed very quickly in the past two decades from closed and introverted spaces to centers of great hustle and bustle spurred by a modern building spree. The brief tourist season (May to August) and the rather small agricultural cycle in Ladakh leaves little opportunity among the local community for introspection, propelled further by demands of a sharply increasing world tourist population. Ladakh is now experiencing an influx of tourism as never before, which has reflective cultural and economic consequences. The region has been drawing attention because of its unique landscape and its cultural heritage; tourists are mostly drawn to the built environment, particularly the Buddhist monasteries. The tourist data (fig. 8) indicates that the number of tourists in Ladakh has grown exponentially from just 527 tourists in 1974 when tourism was opened to 178,042 in 2011 (Pelliciardi 2010; Menon 2011). Tourism contributes to nearly 50% of the local GDP. In 2011, the number of tourists in Leh was 22% more than the local population. Limited in natural resources, this added burden of people and the slim carrying capacity is drastically depleting the lifegiving resources of Ladakh, putting it at a major risk of calamities and crisis.

Because of this influx of tourism, Ladakh is now at the forefront of rapid environmental and socioeconomic changes. There has been a dynamic program of development in the region after the arrival of tourism that has brought changes in lifestyle, culture, and traditions. Tourism is now a major contributor to Ladakh's economy, but it is also having a direct and negative impact on Ladakh's sociocultural environment. In order to facilitate the growing demands of the tourists who prefer to

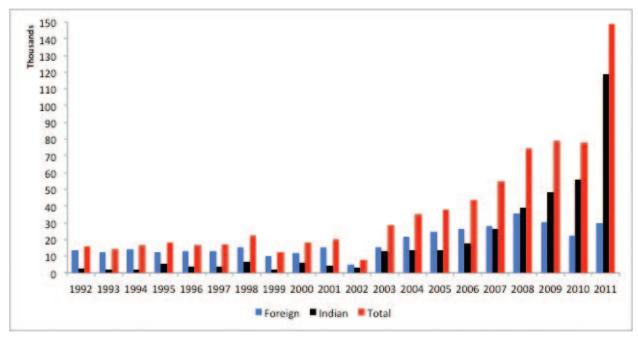


Fig. 8. Increasing footfalls in Ladakh in the past 20 years (Modified from Pelliciardi 2010)

maintain their personal standards of living, scarce resources are being overused. Several environmental issues that never occurred in the past are now apparent. Generation of large volumes of non-degradable waste, an absence of proper disposal systems, and over-usage of water (which is already scarce—traditionally the society had hit an equilibrium on usage of water from natural streams) have all led to an imbalance that is taking a toll on the region.

While the economy of Ladakh was previously self-sustaining, it now almost entirely depends on the affluence of tourists. Interdependency between Ladakhis has plummeted and the traditional economy has migrated to a tourism-related model where all profits earned by transactions related to tourism are being diverted towards expansion activities within the tourism sector. Hence, only the actors of this touristic market get the benefits from this economy. This in turn expands as the dependency on the influx of tourism makes the local population more and more dependent on an outside population, which can collapse any day. Other grave hazards of tourism include pollution, which has increased due to a large number of motorized vehicles that tourists demand. This has impacted air quality in the urban centers, which is dangerous for a microclimate like Ladakh. Tourists and migrants have also affected the aspirations of the local population in terms of living standards, causing them to abandon their traditional practices and adopt foreign trends in eating, washing, dressing, mobility, etc. This has steered them away from care of their historic structures and cultural heritage, as they tend to deem them old-fashioned and unnecessary to invest in, both culturally and economically. Residential houses are increasingly being converted into hotels and guesthouses or are used for other commercial activities (fig. 9).

Monasteries have become commercialized due to their exposure to modernization. Entering the sacred space now has a price and tourists are willing to buy tickets in order to visit these sites. To make it convenient for the tourists, most of the major monasteries are now well connected with drivable roads, as opposed to the former hermit nature of these sites that called for spiritual and meditative encounters. Construction of roads through hills leads to disturbances in the natural geological setup and also causes vibrations in these ancient structures, which gradually adds to their damage. In a strange unforeseen manner, tourism has also led to increasing numbers of thefts of religious artifacts from monasteries and other holy sites. Nearly unheard of in the traditional Ladakhi society, theft is now a common complaint.

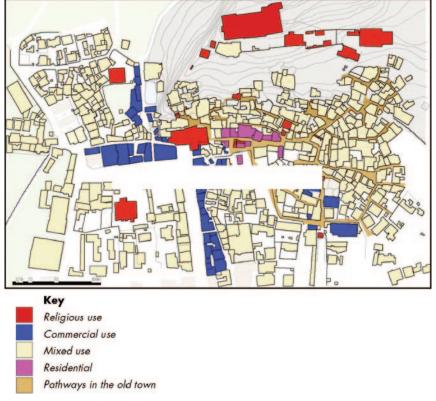


Fig. 9. Land use patterns in Leh area show that spaces are increasingly being used for mixed purposes (Courtesy of Tibet Heritage Fund)

The monasteries and other holy sites lack surveillance and security and opportunists tend to take advantage and steal portable and unprotected artifacts. The theft of the central wooden panel with an image of Buddha from the 13th century *Sumdah Chun stūpa* is an example. Vandalism or mechanical interactions with the historic site are common challenges; tourists often walk with disregard and start trampling on the artifacts, causing changes to their condition and to the integrity of historic components.

3.2 RELIGIOUS PRACTICES

The Buddhist monasteries of Ladakh are living heritage sites where everyday rites and rituals are performed. The mornings in each monastery start with religious chants by the monks. Lighting of oil lamps and burning juniper incense for purification of the space is an imperative part of daily ritual. Although these rituals are important to keep the religious space alive, they often have detrimental effects on heritage materials. Burning oil lamps inside the temples and shrines is a custom that originates from a long tradition. It is a practice to invoke the spirits residing in the temples, but the smoke from these oil lamps bonds as soot on the surfaces of the artifacts and paintings. Burning oil lamps inside the monasteries since time immemorial has left an alarming amount of soot deposits on wall paintings inside the temples (fig. 10). It is also customary in every monastery to make figures of barley flour and butter called *mchod-pa* or *torma*³, which are elaborately used as an offering to the Buddhist deities and spirits living in the monasteries as part of daily rituals intended to achieve favors of the Buddhist deities. As these are organic, edible materials, they attract rodents, insect pests, and other microorganisms, which often leads to severe damage to the objects of significance (fig. 11).

The community engages with religious structures and objects differently than historians and heritage practitioners do. When a religious object is broken, torn, or partially lost, the religious value



Fig. 10. Wall paintings covered with thick layers of soot, Dzonkul monastery (Courtesy of Joyoti Roy)



Fig. 11. Preparation of barley flour and butter figures (mchod-pa or torma) for religious offerings (Courtesy of N. Jahan)

decreases and in most cases, especially when it comes to worn or damaged religious texts, they are burned or enshrined in a stūpa, or in some cases immersed in the river as they become deconsecrated and lose their power or function. Such practices, albeit considered rituals by the monks and local believers, have often led to the loss of significant heritage objects. There is a risk that some of these "not fit for worship" objects may be stolen and restored, and then reach the illicit art market. Similarly, monastic establishments have specific arrangements for storage of religious and ritual objects, but more often than not, such storage spaces are not appropriate and there is always a risk of theft and damage. Historically, many items like the traditional costumes and masks that are used in religious dances only once a year during the monastery festival are often stored in trunks and boxes. Traditionally, the objects were either stored in wooden boxes or leather trunks, which acted as a buffer against the external environment. Today, modern materials such as metal trunks are being used, which create microenvironments for the artifacts and accelerate their deterioration process (fig. 12).

3.3 MODERNIZATION AND NEGLECT

Other factors include interventions on heritage structures and abandonment of old structures by local communities. The traditional building materials used in Ladakh are stone, earth, and wood. The foundation and ground level of the buildings are usually built using stones and mud mortar, while in the upper levels, sun-baked mud bricks are used. The roofs have a flat surface, which is prepared by plastering



Fig. 12. Traditional wooden trunks for storing *thangka* paintings are being replaced by metal trunks (Courtesy of Satish Pandey)

the surface with mud and clay on top of wooden beams. The traditional architecture is very well suited to the climate and geography of Ladakh. The sun-baked mud bricks and mud plaster absorb heat from the strong sun during the daytime and emanate it during the cold nights. Mud plaster provides insulation for walls, floors, and ceilings.

However, along with the many benefits of traditional architecture, there are certain drawbacks—the traditional materials are very susceptible to liquid infiltration, be it from rain or snowfall, which is causing a major problem today. The flat roof system allows water to accumulate on the surface and slowly penetrate inside the building (fig. 13). Another disadvantage arises from the use of timber for construction of roofs; the wood tends to contract and expand due to extreme temperature contrasts, causing cracks. In spite of these shortcomings, traditional materials do well if maintained regularly in the traditional manner.

Unfortunately, with the changes in the Ladakhi lifestyle, maintenance is never undertaken in time or is often done with modern, incompatible materials that are even more harmful for the health of old structures. The availability and affordability of new construction materials in the market has also led to a change in preferences (Johnson 2014). New houses are usually built with concrete instead of traditional mud as the latter is now regarded as backwards and unfashionable by some people (Alexander 2007). In the conventional Ladakhi culture, the ancient monasteries are considered more sacred then the newer ones, as it is believed that the older monasteries have collected more blessings. Such monasteries, therefore, are commonly looked after by the local communities as a votive act, leading to localized



Fig. 13. Mud streaks on wall paintings due to water ingress, Sani monastery, Ladakh (Courtesy of Joyoti Roy)

attempts of repairs and maintenance. Villages across the region have developed their own systems to maintain their tangible and intangible heritage over the centuries. Traditional management systems have ensured that heritage and resources, both built and natural, are constantly maintained, repaired and in some cases renewed so that they continue to serve the needs of the community. The process of renewal, repair, and restoration is often preceded by religious rituals carried out to ensure that sacred spirits that reside all around are not disturbed. (Sharma and Weber 2011). In recent times, however, use of improper material such as cement or unskilled interventions for maintenance and repairs have resulted in several issues.

3.4 HERITAGE CONSERVATION INITIATIVES

When drivable roads were constructed in the early 1970s, tourists, historians, conservators, anthropologists, scholars, and social activists reached Ladakh and stayed for long periods of time, studying and understanding the indigenous culture and traditions and how they are transforming with time. They closely interacted with the local people and also documented their practices. David L. Snellgrove and his associate Tazeusz Skorupsky travelled all over Ladakh and Zangskar in the 1970s and documented the monastic establishments and their arts. Helena Norberg-Hodge, an author and filmmaker, documented the life of Ladakhi community and wrote about them in her well-known book *Ancient Futures: Learning from Ladakh* (Norberg-Hodge 1991). Ladakhi's serene cold climate and adventurous treks attracted numerous Indian and foreign tourists, and the mystic practices and unique lifestyle encouraged scholars to observe and study them.

Most of the monasteries in Ladakh are privately managed and only a handful of them are looked after and protected by the government. Ease of access for private individuals and religious leaders heading the monasteries allows foreign nationals to interact with monks and religious leaders. Further, a promise of funds and expertise in conservation become lucrative inducements for owners of monasteries to engage with foreign agencies and individuals. Such practices have had their merits and demerits. While on the one hand, the long history of heritage conservation practices in the Western world has often allowed for such conservation projects to be systematically planned and implemented in phases, more often than not such projects do not take into account the religious values and significance of the heritage, which is what the Ladakhi community is most concerned about (Sharma 2009). In India, the technical expertise in heritage conservation has been very limited and there are several instances of failed or even disastrous conservation interventions. Such interventions often disregard or fail to take into account the sentiments of the community, who often find conservation interventions confusing and undesirable. Between the early 1980s and 1990s, many such conservation projects were envisaged and implemented in Ladakh, both in large monasteries as well as in small village temples, which have exquisite art and antiquity collections.

In Buddhist practices of Ladakh, the art historical value of paintings or objects does not necessarily have much significance. It is believed that living spirits inhabit the image and if an image is damaged, it is a bad omen for the community. The purpose of this repair is, therefore, not to restore the art historical significance and aesthetic quality of the image, but to contain its sacredness by completing the icon. As such, in many cases where the image is missing or incomplete, there are attempts to make these images complete again. There are several cases of such interventions and one of the most important examples is the wall paintings in the Hemis monastery, which have been repainted with modern paint. Another example is the central figure in cave no. 5 of the Saspol village, where an amateur local artist has painted the lost image of Buddha. Similar cases can be seen at the Karsha monastery in the Zangskar region and the temple complex in the Mangyu village, where the historic wall paintings have been overpainted (figs. 14, 15). While restoration in religious parlance may have been achieved in these cases, the art historical integrity did not survive.



Fig. 14. Artist recreating wall paintings in Hemis monastery (Courtesy of Satish Pandey)

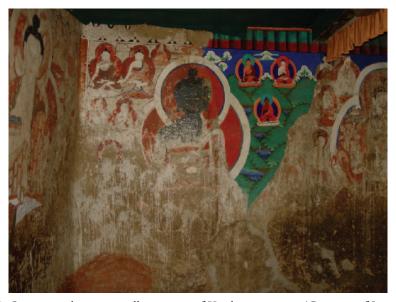


Fig. 15. Overpainted areas in wall paintings of Karsha monastery (Courtesy of Joyoti Roy)

Lack of awareness of important structures almost always leads to negligence and therefore to partial or complete loss. There are several examples of historic buildings being destroyed in order to make way for new construction. In some cases, concrete was used due to limited knowledge of original technique and traditional materials, causing long-term damage. For instance, the 15th-century Red Temple (Lhakhang Marpo) in Hunder village was demolished by the Hunder Welfare Society in 2012 and replaced with a concrete structure (fig. 16). The decision to demolish the ancient temple was made because the community did not gauge the importance of the historicity of the ancient temple and its original components. The wall paintings and sculptures were removed and discarded to make way for new paintings and sculptures.

Overall, it is the opinion of the authors that there has been a complete lack of interaction between the institutions and/or individuals working with heritage and the community. This has led to a situation where the concerns and apprehensions of the community have never been understood and dealt with appropriately. As a result, most of the conservation initiatives are isolated and develop without a consistent approach towards sustainable conservation and holistic development.

3.5 CLIMATE CHANGE

Climate change is a global issue and the region of Ladakh is not untouched by its consequences. The evidence of climate change can be seen through personal observations and studies conducted in recent years. Ladakh is a high-altitude, arid mountain region known for its extreme climatic conditions and challenging mountainous terrain. Climate change is affecting the landscape and cultural heritage of the region. The annual snowfall has decreased notably in the last couple of decades and glaciers are melting at an alarming rate. The excessive glacier melts during the summers have resulted in floods and heavy damage to people, livestock, and buildings. In August 2010, an extremely localized cloudburst set off a flash flood in Leh and surrounding villages. Ladakh had not encountered a natural disaster of such a magnitude in the recorded past. The flash flood caused fatalities, lands were buried under mudslides, and roads were washed away. The amount of rainfall has increased significantly in the past decade and the region is now experiencing short but heavy downpours that the traditional mud structures are not equipped to withstand. The hefty rainfall leads to water seepage in these old structures, causing structural damage as well as triggering difficulties for the articles kept inside. In the long run, the melting glaciers of the Himalayas and the Karakoram mountain ranges also threaten these heritage structures. The climatic change is progressive and hence is the prime source of danger to the heritage of Ladakh.

4. NEED FOR SUSTAINABLE APPROACHES IN CONSERVATION

In recent years, conservation has evolved as a discipline that is based on methods, as opposed to conventional practice involving merely empirical knowledge (Phillipot 1996). There are various approaches to conservation that have developed since the inception of the field and their application has been continuously discussed and debated. The conventional approach of conservation focuses on conservation of materials or fabric and is an expert-driven approach in which the community has no role (Poulios 2010a, 2010b, 2014). A value-based approach that expanded on the conventional material-based approach is considered more appropriate as it includes community stakeholders in conservation decisions and interventions—a more democratic process (de la Torre 2002; Wijesuriya 2007; Poulios 2010a, 2010b, 2014). The value-based approach has largely been accepted and applied worldwide. However, more recently, Poulios (2010a, 2010b, 2014) proposed a new *living cultural heritage* approach, which emphasizes livingness, continuity, and renewal, and prioritizes the functions of the living heritage over its fabric. Although the aim of this article is not to debate the merits of these conservation approaches, it is pertinent to point out that the material- or value-based approaches cannot be completely overlooked in





Fig. 16a. Exterior of the Red Temple in Hunder village before it was destroyed; 16b. Original interior of the temple



Fig. 16c. Rebuilt concrete structure (Courtesy of N. Jahan)

the case of conservation of cultural heritage in Ladakh. The cultural heritage in this region is not just a continuing tradition; it also has archaeological/historic and aesthetic value that has been passed on for centuries. It would therefore be detrimental to ignore the values and significance of the heritage, giving priority to its function alone. However, a balanced approach incorporating archaeological, historic, aesthetic, and functional values of the heritage can perhaps ensure sustainability in conservation interventions and an unhindered continuity of the traditional practices and culture.

The current conservation interventions in the hill region are sporadic and the goal of achieving sustainability is far-fetched. Aspirations of many national and international organizations and groups that wish to rescue the ancient art and culture of Ladakh for posterity have risen exponentially in the last few years. These organizations and groups approach individual monasteries in order to initiate conservation projects and often bring funding from external sources. An environment in which initiatives to preserve the cultural heritage are taken on by local stakeholders usually makes for an ideal beginning. Conservators, heritage practitioners, architects, etc., can subsequently be brought on board to carry out systematic conservation interventions. In the long run, such initiatives will sustain the interest of local stakeholders and maintain quality in conservation interventions. Contrarily, in cases where conservation agencies try to intervene and act as vanguards of heritage, the process is slower, not always efficient, and may often lead to conflicts where the stakeholder and the conservator do not understand each other's priorities, leading to compromises that may ultimately be detrimental to heritage resources.

On the other hand, in a place like Ladakh, where people have been living in an extremely sequestered environment, an awareness of the importance of heritage has appeared only recently. The local communities need to appreciate that their heritage is not just valuable to them alone but is also historically significant to a global community. This is evident from the fact that a substantial number of people visit the region and value it for its historic edifices and unique cultural practices that are markers of civilizational history. Therefore, for all conservation initiatives, there should be an active dialogue between conservation agencies and local communities, simultaneously bearing in mind the universal historical significance of the region.

5. CONCLUSION

The conservation of Ladakh's cultural heritage needs a multipronged approach. Its delicate climatic balance, cultural resources, and intangible heritage all depend upon each other and conservation interventions must take into account all of these aspects. The rampant growth of tourism and uncontrolled development in the region may appear as positive signs, but if the carrying capacity of the hill town is not considered carefully, its natural resources will give way to natural and man-made disasters as it has in the recent past. In such a scenario, policy makers have to mindfully draft a comprehensive conservation policy that can achieve balance between the need to preserve local practices and traditions and the historic materiality of the region's cultural fabric. Cultural heritage manifests in religious spaces that are functional elements in traditional practices and therefore should form the core of any conservation initiative. One such brilliant example is Bhutan, where the number of tourists is constrained by the government in the interest of its delicate microclimate.

The government and local administrative bodies will need to take up the responsibility of making policy decisions to create checks and balances in civic development and tourism-related issues. Educational and awareness programs, engaging interactions between stakeholders, policy makers, and conservation experts can play important roles. The regional leadership will need to take proactive steps and develop appropriate policies and acts for conservation of cultural heritage in Ladakh in order to strike an ideal equilibrium between ancient value systems and modern developmental strategies so that cultural heritage—both tangible and intangible—are protected and preserved.

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NOTES

- 1. Four sects of Buddhism were established in Ladakh at different points of time in history. Monasteries under the influence of *Ge-lug* (*dge-lugs*) and *Drigung Kagyu* (*bri-gung-bka-rgud*) are more commonly found in the region. However, monasteries under the *Sakya* (*sa-skya*) and *Nyingma* (*rnyin-ma*) schools are lesser in number.
- 2. Mani walls found in the villages of Ladakh are several feet in height and 3–4 feet in width and are decorated with Mani stones inscribed with religious hymns or carvings of incarnations of Buddha. The Mani stones are supposed to protect the village from bad omens.
- 3. *Mchod-pa* or *torma* are figures prepared with roasted barley dough, hardened butter, milk, curd, sugar, etc., as offerings in Tibetan Buddhism. These are usually made into different compositions, shapes, colors, and designs depending on the kind of rituals to be performed.

REFERENCES

Alexander, A. 2007. *Towards a management plan for the old town of Leh*, Berlin, Germany. Accessed July 27, 2016, http://www.tibetheritagefund.org/media/download/leh_conservation_aa.pdf

de la Torre, M., ed., 2002. Assessing the Values of Cultural Heritage: Research Report. Los Angeles, CA: The Getty Conservation Institute. Accessed May 29, 2016, http://hdl.handle.net/10020/gci_pubs/values_cultural_heritage

Johnson, J. K. 2014. Accommodating conservation: Regulating architectural heritage in a Himalayan tourist town, Ph.D. diss., Syracuse University. Accessed May 29, 2016, http://surface.syr.edu/etd/176/

Kaul, H. N. 1998. Rediscovery of Ladakh. New Delhi: Indus Publishing.

Luczanits, C. 2005. The early Buddhist heritage of Ladakh reconsidered. In *Ladakhi histories: Local and regional perspectives*, ed. J. Bray, Leiden: Brill. 65-96.

Menon, S. G. 2011. Two sides to Ladakh tourism. *The Hindu Business Line*, December 1. http://www.thehindubusinessline.com/news/variety/two-sides-to-ladakh-tourism/article2678113.ece.

Norberg-Hodge, H. 1991. Ancient futures: Learning from Ladakh. San Francisco, CA: Sierra Club Books.

Pelliciardi, V. 2010. Tourism traffic volumes in Leh District: An overview. ladakh studies 26: 14–23.

Phillipot, P. 1996. Restoration from the perspective of humanities, In *Historical and Philosophical Issues in the Conservation of Cultural Heritage*, ed. N. S. Price, M. K. Talley, and A. M. Vaccaro. Los Angeles: Getty Publications. 216-229.

Poulios, I. 2010a. Moving beyond a values-based approach to heritage conservation. *Conservation and Management of Archaeological Sites* 12 (2): 170-185.

Poulios, I. 2010b. Conserving living religious heritage: Maintaining continuity and embracing change—The Hindu temples of Tanjore, Srirangam and Tirupati in India. *South Asian Arts*, Accessed May 30, 2016. http://www.southasianarts.org/2010/10/conserving-livingreligious-heritage 15.html.

Poulios, I. 2014. *The past in the present: A living heritage approach—Meteora, Greece*. London: Ubiquity Press. doi: http://dx.doi.org/10.5334/bak.

Sharma, T. 2009. Within the temple walls – Preserving the spirit of a place, in *Thinking conservation: Contemporary perspectives from India*, ed. A. Baig and R. Mehrotra. New Delhi: S. I. Publishers. 30-39.

Sharma, T. and M. Weber. 2011. Temple guardians: A community's initiative in conserving its sacred heritage. *Context: Built, Living and Natural* 8 (1): 77–84.

Wijesuriya, G. 2007. Values of the heritage in the religious and cultural traditions of Southern Asia. *Values and Criteria in Heritage Conservation*, Proceedings of the International Conference Proceedings of the International Conference of ICOMOS, ICCROM, Fondazione Romualdo Del Bianco, March 2–4, 2007, Florence, Italy. 73–78.

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