



**RESEARCH PAPER**

**Challenges and Opportunities for Revitalization of the Architectural Heritage of Saidu Sharif Swat**

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**ABSTRACT**

This research aims to analyze the opportunities for the revitalization of the architectural heritage of Saidu Sharif, Swat. The revitalization of urban areas and cities dominated by heritage sites, is governed by the genius loci. Retaining and revitalizing such sites will not only strengthen the cultural, architectural, and economic values but may also create a strong bond between the historic buildings and the local community. The state of Swat was known for its architectural design, street patterns, and structures. This research selected Saidu Sharif as a case study and different historic buildings were examined through physical surveys, followed by interview sessions with experts and the local community. A multitude of factors were identified including but not limited to climatic effects, earthquakes, chaotic developments, and terrorism, due to which most historic buildings are gradually vanishing. Guidelines for the formulation of a conservation plan and revitalization for the Historic Site were recommended.

**Keywords:** Architectural Heritage, Conservation, Revitalization, Saidu Sharif, Swat

**Introduction**

A major percentage of historically significant structures are in danger of dilapidation and destruction because of abandonment. Revitalization of such structures not only saves the heritage structure but also revitalizes the entire neighborhood in which such buildings are located. Hence, these structures should not be left as antiques and ruins of a former era. Heritage structures are an important part of the genius loci, influencing the emotional attachments of the occupants. Conserving these buildings and structures can strengthen societal feelings by improving the mental associations of the masses, which can contribute significantly to the domestic economy by promoting heritage tourism (Watt, 2005). In the best interests of the general public, preventive protection aims to identify and list historically significant structures: "The purpose of preventive protection and restoration is to preserve cultural landmarks, to preserve and maintain their condition, and especially to avoid unauthorized changes, to stimulate the discovery of cultural monuments, to register and inspect them professionally" (Hassler, 2011). Cultural landmarks are appreciated by the cultural respect they get and are seen as a "precious gift" due to their longevity. Ownership interests are compromised in favor of the public interest in protecting the built environment through protective laws. Because of this, investors looking to make a profit and the general public are always interested in cultural sites. One must distinguish between "the practical function the monument itself possesses, the inherent worth of the monument, and the spiritual value associated with the building's past" to balance these two goals (Stanišić, & Kurtović-Folić, 2015).

Every work of architectural significance has a special cultural and historical place in its society determined by its location, building technique, construction techniques, form, and function (Eberhardt, & Pospisil, 2021). The value of the heritage building will change if the building remains unused or affected by natural/man-made hazards and will need to be conserved (Del & Tabrizi, 2020; Taher Tolou Del et al., 2020). To conserve historical monuments, the common measure adopted in most countries is to revive these buildings and sites through revitalization (Zhang & Dong, 2021; Penića, Svetlana, & Murgul, 2015).

Swat, a province of Khyber Pakhtunkhwa, was once known for its architecture and monumental structures. The state's buildings reflect the high quality of architecture and engineering at the time. As a result of their architectural style, they are considered landmarks. Some of the famous buildings include public buildings and administrative departments (Martore & Olivieri, 2016). It is one of the most visited areas and has a major tourism industry. A tourist visiting the Swat Valley first reaches Saidu Sharif, the capital city of Swat, and its twin city, Mingora. There were different bad events like terrorism and others that led to the downfall of tourism, which was one of the major sources of income in the Swats' economy. Natural and manmade disasters and rapid urban sprawl have also affected the valley's attractions as well as the architectural and built heritage of the region. As a result, to address the problem of urban sprawl and the destruction of built heritage, revitalization of structures is a pressing need that can strengthen the urban living environment as well as boost overall social welfare. In the sense of social, economic, or urban areas experiencing physical urban decay and decayed built heritage, urban revitalization is the elimination of conditions that lead to destruction or the approach of reviving the city and structures (Egercioğlu, Yakıcı & Ertan, 2016). Through revitalizing the heritage structures, we will not only satisfy the city's tourist needs but also protect the city's valued property from unauthorized activities such as encroachment, illegal construction, etc. The urban belt in Saidu Sharif Swat from Allah Chowk to Kachahri/Nasir ul Mulk Chowk was chosen for the study as it has a strong historical background from the Swat State's era. From ancient times to the present, this city has served as the capital. The main problem in Saidu Sharif, Swat, is that most of the historic buildings are gradually losing their identity due to unplanned development near the heritage buildings, and rapid urban sprawl. As a result, the built heritage of this area should be preserved to preserve the site's legacy. If everything is consistently maintained, it is possible to keep a building in its current condition, put off reconstruction and restoration, and save a significant sum of money. It is irrational to entirely neglect a heritage building and then decide to take preventive action. The so-called "basic" preventative protection actions that institutions and people, i.e., those in charge of the preservation and renewal of buildings, adopted in the past had long-lasting impacts. The protected monuments of the city of Saidu Sharif would be able to be included on the list of UNESCO World Heritage employing a significant number of extra preventative preservation measures that were not put in place during the interim period. As a result, many cultural sites can be conserved.

## **Literature Review**

### **Built heritage Revitalization**

The architecture of abandoned (empty) historic buildings is marked by their location within existing "luxury voids." True examples for future use of protected buildings are those that have been revived and have undergone all compensation processes. The opportunities for compensation can be evaluated based on the suitability of the protected cultural monument being revitalized. The revitalization of ancient metropolises may enhance urban living standards and land-use effectiveness, achieving unprecedented social welfare. The effects of revitalization are a hot topic of discussion in the literature (Ahlfeldt, 2011). The revitalization processes were described using a variety of terms that are frequently used interchangeably. The concept was defined as regeneration, renewal, redevelopment, reconstruction, renovation, and rebuilding, among other ideas, by Spandou,

Garcia, & Macário, 2010. The word "urban revitalization" refers to a collection of initiatives aimed at transforming an already-existing city structure, particularly in areas where the local economy or social structure is deteriorating. In general, urban revitalization plans aim to improve aspects of the urban environment including sidewalk accessibility and pavement design defined by Grazuleviciute-Vileniske & Urbonas, 2014. On the other hand, he pointed out that the term "revitalization" would refer to aspects that are physical, social, economical, and cultural. By preserving the identity, history, and tradition of the urban area, revitalization aims to aid the current urban expansion. In addition, the revitalization effort will create job opportunities, safeguard natural resources, and offer suitable community services and facilities for residents. On a global scale, there hasn't been much research on urban revitalization. Urban revitalization is a series of urban management strategies that are meant to promote the social, economic, environmental, cultural, and historical regeneration of troubled, underdeveloped, and decaying metropolitan regions (Spandou, Garcia, & Macário, 2010).

There are many methods to revitalize historic sites for the future. According to Stanišić, & Kurtović-Folić, (2015), maintaining your monuments properly will minimize the need for restorations. A few lead sheets placed on the roof over time and a few dead leaves and sticks swept out of a waterway over time will protect the roof and walls against collapse. "Keep a watchful eye on an ancient structure. Count its stones as if they were royal jewels, keep watch over it as if you were at the walls of a city under siege, connect it with iron when it separates, and support it with wood where it weakens. A crutch is preferable to losing a limb. Its bad day will eventually come, but let it arrive openly and blatantly (Ruskin, 1860). This is a statement made by the renowned English thinker John Ruskin, who recognized the need for regular building care, particularly for cultural monuments as early as the middle of the nineteenth century Stanišić, & Kurtović-Folić, (2015). Other methods include,

- i) Reinforced cement concrete covering for stone walls in which two layers of RCC are applied, each with two coats, in thin coats in multiple layers on both exterior and interior walls to strengthen the masonry walls up to 4 times their original strength. Plastic mesh and fiberglass can be used and steel connectors are used to connect the existing and the new elements of the wall (Fig 1), so the reinforcement can take place ([Branco & Guerreiro, 2011](#)).



Fig 1: Application of Steel mesh walls & cement grout spraying technique. (Branco & Guerreiro, 2011)

- ii) Application of carbon fiber-reinforced plastic (CFRP) and glass fiber-reinforced plastic (GFRP) with adhesive on walls and columns after cleansing their surfaces to increase compressive strength. Connectors are placed on the walls to ensure that the bond is strong enough (Fig 2).

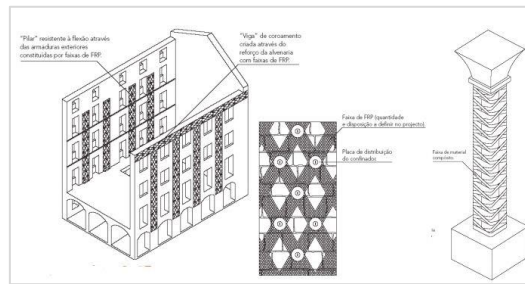


Fig 2: GFRP/ CFRP technique (Triantafillou & Fardis, 1997)

- iii) The technique of retrofitting after tensioning phase in which post-tensioning stretching materials are applied on the center of the wall for post-tensioning modification that strengthens the structure. Initially, the unreinforced masonry is cored on the top up to the foundation (Fig 3) (Branco & Guerreiro, 2011).



Fig 3: Coring Operations and Bar Post-Tensioning (Branco & Guerreiro, 2011)

- iv) Restoring the strength of the building such as small visible cracks is restored to its tensile strength using the application of pressurized epoxy materials like ports of plastic injected on the surface and then the epoxy is injected with low viscosity into the holes (Fig 4). For cracks that are larger in width, up to 5mm, or areas where the concrete or masonry has been crushed, other treatments may be used rather than injecting materials such as epoxy like flexible steel used in the area needing treatment (ElGawady, Lestuzzi, & Badoux, 2004). If the walls or the floor is greatly damaged and in poor condition, a mesh of steel is laid down on the surface, anchored down with bolts and nails. Small aggregate concrete or mortar plaster is then poured over this mesh (ElGawady, Lestuzzi, & Badoux, 2004).

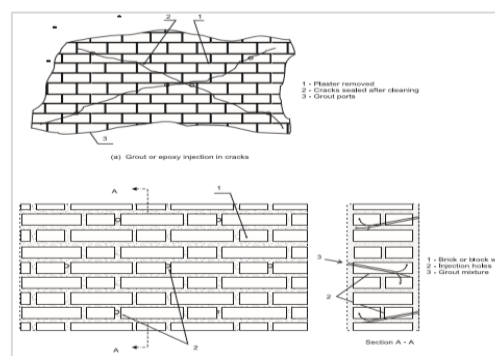


Fig 4: Fixing the Cracks. (ElGawady, Lestuzzi, & Badoux, 2004)

- v) In the aftermath of an earthquake, cracks appear on walls and other elements of a building, thus the process of underpinning is required ([Keypour, Fahjan, & Bayraktar, 2007](#)). New structural members are added to the old structure to relieve the load on the existing members. The drainage of the system of the building must be repaired on the site as leakages from the system may cause further decay to the base of the structure. An apron must be provided around the exterior walls of the building to prevent water from soaking into the foundations. Strong elements of RCC are added to the foundations, they primarily help strengthen the base. This also prevents the need to dig up the interior floors as the exterior walls take the added width so the internal plan remains the same. ([Branco & Guerreiro, 2011](#)) (Fig 5).

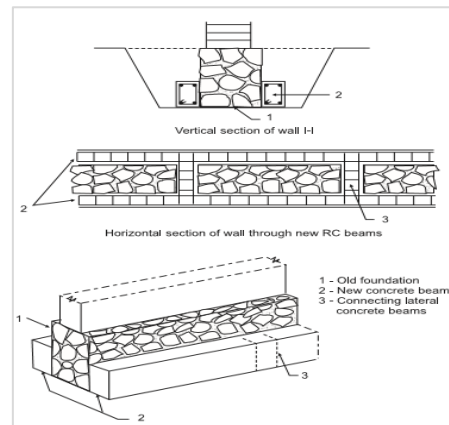


Fig 5: Foundation Restoration (Branco & Guerreiro, 2011)

The conclusion drawn from the literature stated that the monuments that are still standing were erected according to the laws and conditions that were in effect at the time they were constructed. Numerous historical cases attest to the fact that the usage of the structures was frequently modified to address the changing user requirements. Determining how best to adapt the current building's idea and physical attributes to the requirements of future users while minimizing structural alterations is crucial. It is feasible to adapt the building to the requirements of future users while sticking to the restrictions put in place when it comes to protected buildings by using the building management plan in the early stages of revitalization work.

## Material and Methods

A case study and qualitative study approach are used for this research. The study's use of a field survey to analyze the present situation allows for the documentation of historical monuments that are considered important examples of architectural practice. The idea behind this research was to identify cultural buildings that represent everlasting meanings from a certain period in Saidu Sharif, Swat, and provide suggestions and develop solutions for the study buildings. Therefore, a limited number of buildings, totaling 3, have been selected as the most useful and representative ones, and an analysis of their structures has been done because analyzing historical structures can help figure out the possibility of their preservation and conservation. After reviewing the literature on the importance of preserving historical buildings and structures, the next strategy was to take a guided approach to the surveyed structures to be protected. In addition, interview sessions with experts and the local community were conducted to determine the techniques for the conservation of these heritage structures, and lastly, the interpretation of the collected data was done.

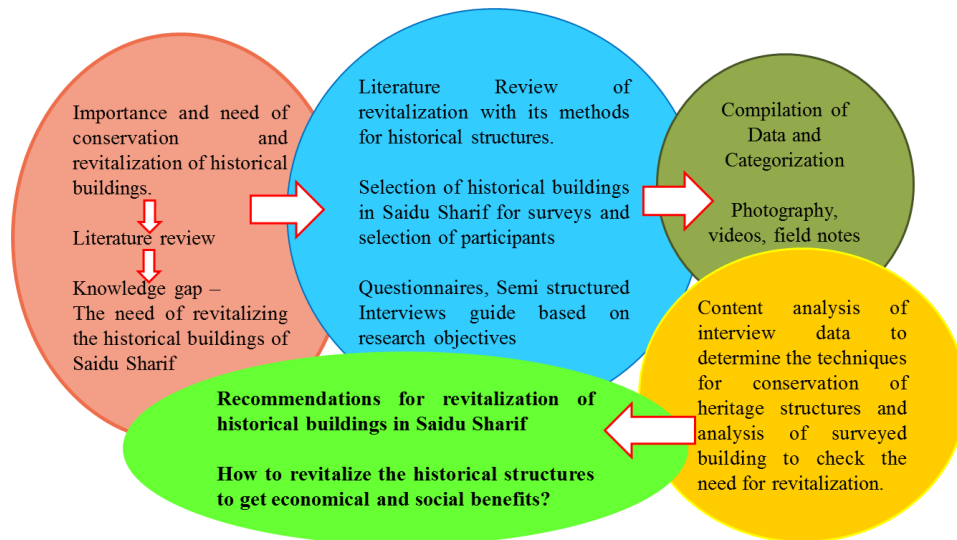


Fig 6: Framework for research approach

### Case Study Area

Through the Swat Motorway, Saidu Sharif is 200 kilometers (124 miles) from Peshawar and 230 kilometers (142 miles) from Islamabad. The attractive settlement of Saidu Sharif is just 2.6 kilometers (1.6 miles) from the hustle and bustle of the Mingora market, which is the largest market in the Swat Valley. It is the second biggest city in the Swat district. The word "Baligram" has been used to refer to Saidu Sharif from the early Buddhist era. In 1835, Saidu Baba, also known as Akhund Abdul Ghaffur, built this location as his home. The town was renamed "Saidu Sharif" after that. It has warm but cool weather (Bangash, Irfan, and Alam, 2018).

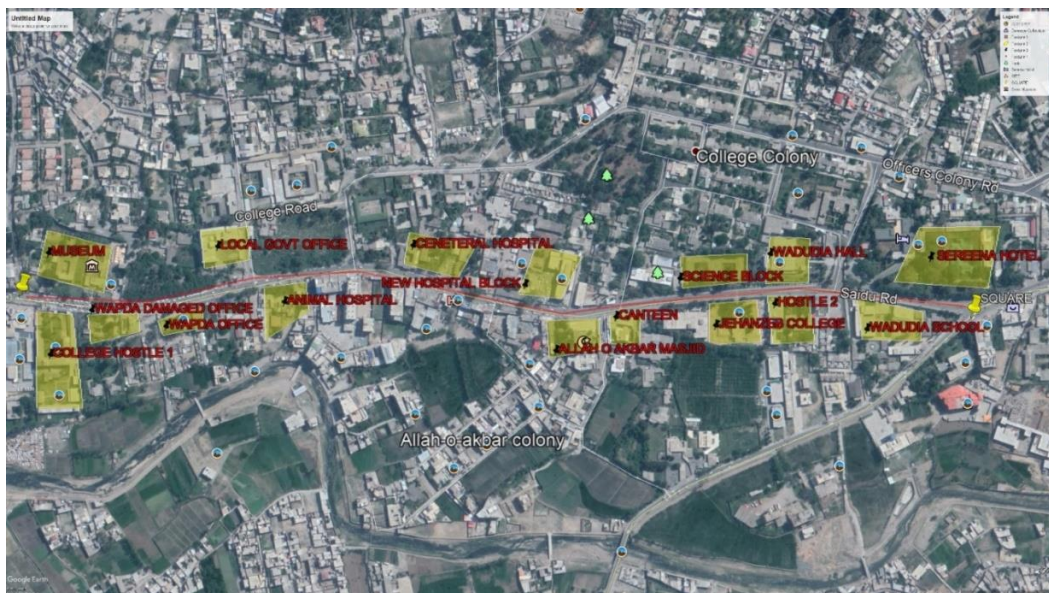


Fig 7: Architectural heritage belt (i.e., 1.3 km Saidu Sharif Swat) (google earth, 2019)

The selected belt of Saidu Sharif is given in figure 7 and the buildings located on this belt are from the ancient era of the swat state. Buildings typologies on this belt consisted of educational institutes, museums, healthcare centers, WAPDA offices, and religious buildings like Mosques. Considering the architectural style of buildings located on this urban belt has a royal architecture that is influenced mostly by Greek, British, and Italian architectural

style. The state of Swat was popular in the design of streets and buildings. The structures of that specific period reflect the high quality and best compositional plans of that time. Given its architectural style and engineering excellence, specialists in the field esteem them as benchmarks.

### Case Studies

The buildings of Swat State's time were planned by foreign experts and architects in Saidu Sharif. They have a matchless architectural vocabulary and are recognized as landmarks. These include the government wadudia hall, Jehan Zeb college and boys' hostel, schools, swat museum, and diverse government institutional structures of the region. Generally, stone masonry is found in footings, brick masonry in load-bearing walls, and reinforced cement concrete in slabs. Arches are used as an important feature in all buildings. The heritage structures in Saidu Sharif, Swat are unnoticed and in poor condition after the seismic activity, terrorism, and weather deterioration. The government is strained through the local community to conserve the heritage structures. Therefore, all the architectural designs and techniques of selected buildings were analyzed for documentation, and recommendations were made for their conservation in this research. These recommendations can be used by the government and concerned authorities for the conservation of the study buildings.

#### Case Study 01- Wadudia Hall

This building was built by the last ruler of Swat in the name of his father, Miangul Abdul Wadud. It was built in 1946 as a ground plus one-story conference hall for the entire region's communities, and it was renovated in 1968. Swat Wadudia Hall was built in 1940 (Figures 8 and 9), and it is currently used as an auditorium for various government events. However, during the recent renovation process, the original Rajistani marble was replaced by local marble (Figure 10), which is against the preservation of the building and has lost its original essence.



Fig 8: South side blocks elevations (Author, 2019)



Fig 9: West side blocks elevations (Author, 2019)



Fig 10: Wadudia hall renovation work in which original tiles were removed (Author, 2019)

### Case Studt 02- Mingora Hostel Jahanzeb College

It is a three-story structure with 180 students for the intermediate section (Figure 11). It was built in 1953 and 1956, but later on, from time to time, some renovation work has been done, but it needs serious measures because of damage done by the 2005 earthquake (Figure 12), which requires serious action. In recent years, some commercial development has started that is interfering with the breathing space of buildings (Figure 13), so the whole building including the old structure (Figure 14), needs special attention.



Fig 11: Front façade (Author, 2019)





Fig 12: damage by the 2005 earthquake (Author, 2019)



Fig 13: Encroachment (Author, 2019)



Fig 14: Old building (Author, 2019)

### Case Study 03- Jehanzeb College Main Block

The capital of Swat has always been the center of learning, not only for Swat but also for neighboring districts like Shangla, Bunir, and Dir. Miangul Abdul Haq Jehanzeb built this majestic building in 1942, which was the only college at that time, and now it is a postgraduate college.



Fig 15: Before and After Demolition for Reconstruction. (swat, 2006) (Author, 2019)



Fig 16: Before and After Demolition of South Block (swat, 2006) (Author, 2019)

Downpour water channels were found blocked (Figure 17). Standing water in these channels may invade the soil around the foundation (Figure 18). Defrayal in the soil neighboring the structure was likewise seen at the rear of the building, bringing the potential for water close to the structure (DieFiore-1985). A fringe drainage channel is succeeding the main line, which drives into the establishment base (i.e., foundation). This line is operationally great; however, because of certain splits that showed up in the waste line, the entire water is channeled into the base of the college building (DieFiore-1985).



Fig 17: Water channels issues (Author, 2019)



Fig 18: Water channels issues (Author, 2019)



Fig 19: Seismic activity effects (Author, 2019)

Negligible to significant level splits were delivered because of differential settlement and late seismic tremors, which were observed all through the structure in every one of the three stories. These breaks incorporate corner-to-corner shear splits, floor splits, and breaks in supporting segments of stairs (Figures 19 & 20). The northeast and southeast segments of the structure were equally damaged as the center segment of the U-shaped structure. A portion of the breaks was seen as infiltrating the establishment. The breadth of the split was more noteworthy than 0.5 inches in certain areas (Dr. Mohammad Ashraf, 2015).



Fig 20: Seismic activity effects (Author, 2019)



Fig 21: Leakage issues (Author, 2019)



Fig 22: Settlements in pillars (Author, 2019)

Leakage issues from rooftop and floor pieces were additionally seen in different areas of the structure (Figure 21). As a consequence of this, every one of the constituents and their completions were demolished (Verrall, 1966). Likewise, the constituents become frail, and standard support is needed to make well-being issues connected (Wong and Hui, 2005). As shown in (Figure 22).

Given the building's current state, the October 2015 earthquake triggered lopsided settlements, resulting in structural splits. Authorities were worried about saving the structure and restoring it, yet afterward, they chose to wreck the structure. Jahanzeb College is a significant structure. After Islamia College Peshawar, this school working with an E-shaped structure is the second biggest in the Khyber Pakhtunkhwa area and is a milestone built in 1952 by the last leader of Swat. However, the new structure is completely different from the previous one, and the destroying procedure is currently underway, implying that we have lost another milestone of our legacy in swat.

## Conclusion

The heritage buildings in the Saidu sharif, swat area, need preservation, conservation, and possible revitalization. Whenever a visitor enters any heritage building, the ambiance of the building takes back the user to the era in which it was constructed through perfect craftsmanship, given that the building is in its original form. these architectural heritage structures reflect our culture and values. It is a difficult task to restore these buildings to their original conditions, yet it is true if any proposed changes are to be done successfully, that is by seeing and observing through the architectural ensemble that one can sense its quality. the knowledge of the recompences of revitalization encompasses former acquaintance of two parameters, one related to the required additional works, and the other about the limitations, which could be a dominant factor in deciding to finance a revitalization project. The users are informed about the limitations affecting the new use. For an architect-conservationist, who epitomizes the public interest, the main benefit of the analyses is to abate the losses related to the various properties of the historical buildings, in the process of adapting the building to future use. For the continuity of the architectural

style of this region, there is a prior need to conserve these buildings which are the perfect examples of that era. In the Swat region, certain impacts have been observed in which the natural environment impact, although the strength of the site in some areas the wild vegetation is damaging the heritage structures which needs serious attention. The natural drainage of these open spaces/lawns are also damaging the foundations of these structures in some cases.

Another impact that has been observed is the built environment, most of the heritage structures of swat can be found in the urban belt, which makes it important but at the same time the issues which are damaging these vital structures were chaotic use of advertisement in front of these structures and new construction in the radius of these heritage structures, needs attention through adaptive reuse of some heritage structures and for others through preserving the architectural and structural vocabulary. some of the buildings are reused as a restaurant and hotels etc. which is not only generating revenue but also promotes the culture and architectural vocabulary of this region.

Fundamentally, all the preservation comprises steps made to prevent deterioration. The process of revitalization of a historic site must be according to the rules and regulations given by ICOMOS and UNESCO Charters. The building conservation should be done by the local craftsmen under the supervision of the archeology department comprising a team of relevant experts. The existing conditions of these structures should be documented in advance if any modification or mediation is started. Any alterations if necessary should be reversible. The interventions must not have negative effects on the existing building.

### **Recommendations**

The process of revitalization of a historic site must be according to the rules and regulations given by ICOMOS and UNESCO Charters. The building conservation should be done by the local craftsmen under the supervision of the archeology department comprising a team of field experts. The existing conditions of the objective structure should be documented in advance if any modification or mediation is started. Any alterations should be the least necessary. It should be repeatable or may be reversible. The interventions must not harm the existing building.

The following guidelines are recommended to help the management in the formulation of a conservation plan for the Historic Site of Saidu Sharif, Swat.

- Long term strategic plan for the city is required to avoid urban sprawl.
- Relevant laws for the protection of heritage sites and buildings are recommended.
- Buildings' distinctive features such as material, size, and scale must be retained as it gives a distinctive character to the historic site of Saidu Sharif whereas construction of new structures that are different from the architectural style of Swat shall not be allowed.
- Sign boards on or attached to heritage buildings shall not be allowed and the existing ones shall be removed.
- Historic buildings facing serious issues of cracking, deflection, or failure must be investigated by concerned professionals.
- The building's original masonry must be retained without the application of waterproof coatings. Repointing of only those areas may be done where moisture exists.

- There should be the least possible alteration to the structure and physical appearance of the building. Installation of Mechanical systems must not damage the building interior.
- The building materials used in the conservation of historic structures must be compatible with the old materials.
- Tourist facilitation and guidance centers may be developed.
- Training of the Local community should be done for the conservation of historic monuments under the supervision of professionals.
- There must be a management team whose core responsibility is to maintain the historic buildings.

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