

Conservation of Archaeological Sites in Nepal

- Chandra P. Tripathee

The scope of this paper, as the title confines, is limited to the "archaeological sites" and their "conservation". So far as the meaning of these two terms are concerned-any place or area where physical remains of ancient culture or cultures occurred is considered an archaeological site. Similarly the act of keeping such sites free from depletion, decay and injury is accepted as conservation. Therefore, the main intention of this paper is to discuss about the conservation of any place or area which contains or reasonably believed to have contained, ruins or relics of archaeological and historical importance, including the access and part or area of land required for fencing or covering in or preserving it.

Numerous archaeological sites belonging to different periods and cultures may be identified within the territory of Nepal. But a detailed survey from the archaeological point of view through out the country is yet to be done. Therefore the accurate number of archaeological sites in the country is not known yet. The survey works conducted in limited areas and few accidental events brought some archaeological sites

to our notice. Among them very few are excavated and other remain unexcavated. All explored sites, both excavated and unexcavated are the subject to be conserved. Because our obligation regarding the archaeological sites is not only to explore, explain, excavate, and publicise their importance to the people of present generation but also to handover them in safe and intact condition to our future generation. To meet this obligation we are bound to make all possible efforts actively to conserve and safeguard the archaeological remains and sites.

The measures taken to prevent decay and destruction of archaeological sites or their conservation may differ as the type and nature of the ruins and geographical locations, climatic and environmental condition of the area where such ruins and sites are located. Therefore the conservation measures in every individual site may vary as per the type and nature of the ruins, deteriorating factors and the climatic situation of the site such as hot, arid, temperate, tropical or frigid. Despite the large number of variables, some basic approaches can be applied in

every sites. Therefore, before selecting appropriate conservation measures, a thorough and adequate study of the ruins including climatic situation and the factors which lead to decay and destruction of the site must be done. Some general elements which can cause decay, destruction and injury to archaeological sites in Nepal are identified as follows.

1. Encroachment and destruction by habitants and Cultivators
2. Destruction by bricks and stones robbers
3. Destruction by modern development works
4. Vandalism by visitors and animals
5. Effects of earthquakes, floods and landslides
6. Soil erosions
7. Changing the courses by the rivers
8. Climatic and chemical effects
9. Vegetational growths on the site.

The adequate efforts or the action taken to arrest aforesaid decaying and destructing factors of an archaeological site can be classified broadly as administrative or managerial measures and scientific or technical measures.

- (a) Administrative or managerial measures: The formulation of proper rules and regulations and their effective execution and demarcating the archaeological sites to control the encroachments of cultivators, habitational and urbanizational processes and development works on and within the archaeological sites can play a vital role in protecting the archaeological sites physically. The barbed wire fencing work and deputation of watchmen to the sites will be the best possible measure to control bricks and stone robbery as well as human and animal vandalism in the site. While planning modern development activities or projects such as roads, irrigation canal and

pipeline construction, the management has to try it's best to diverge from the archaeological site. Legal process or regulation can also play a vital role in protecting the sites.

- (b) Scientific and Technical measures: There are very limited scientific measures to protect and prevent the archaeological sites from decay and destruction made by various natural calamities like Earthquakes, landslides, flooding, change of river course etc. Some technical works like the construction of retaining walls, check dams can control the effects of such natural calamities. The afforestation along and around the archaeological sites may also be an effective measures to control the nature of changing the meandering trend of rivers. Though, big trees and plants with deep roots can destruct the archaeological remains, but short rooted bushes and grass can be effective to stop the soil erosions from the archaeological sites. Hence, to control the soil erosion, lawn can be developed in archaeological sites, but not in the areas where the structures are already exposed. The climatic fluctuation and rapid changes in the temperature may accelerate the deteriorating process in cultural property of a site. If we provide shade, at least, over the structural ruins, water percolation and direct sunlight may be avoided and the detoriatory or weathering process can be minimized. Most of the archaeological sites are found covered with earth. This sort of covering is one of the best measure for preserving the archaeological site, which will help to keep the ruins safe, intact and free from animal and human vandalism and also minimize the weathering process.

Some examples of Site Conservation in Nepal:

In this paper, discussion is made on, and examples are selected from both excavated and unexcavated sites. For the conservation of unexcavated sites usually administrative or managerial measures can be applied. But in order to conserve the excavated sites some scientific techniques should be applied. In Nepal, though the explored and excavated sites are limited in number, they are located in various climatic and geographical areas covering the arid cold high Himalayan belt, subtropical hilly region and tropical valleys of inner Terai and Terai belt. A comprehensive study of conservation activities in few selected archaeological sites in Nepal are as follow:

1. Handigaon

The archaeological site located near Handigaon, Satyanarayan Temple in Kathmandu is excavated one. To protect from encroachment and vandalism a compound wall around the site is provided. The excavated trenches are filled with earth so that the weak and fragile architectural remains, appeared in the deeper level may remain safe and intact. Watchmen are deputed to guard the site.

2. Bhandarkhal Garden of Deopatan:

This site is located near Pashupati temple in Kathmandu. It yielded early Lichhavi Cultural remains. The excavated trenches are filled with earth. The whole mound has been fenced with brick wall and the site is fully protected from encroachments and vandalism.

3. Simraungarh

Simraungarh is a huge ruins of early medieval capital city situated now in the central Terai region (Bara district) of Nepal. The site is spread over in an

area of 7.5 km. North-South and 4.5 km. East-West and ruins of fortification wall is found surrounding the site. Inside the ruins of fortification wall about 50 small villages forming 5 village Development Committees are settled for more than a century and rest of the area is extensively cultivated. Without deserting the existing settlements, neither the site can be freed from cultivation nor the demarcation of the area is possible. The extensive habitation and thorough cultivation has completely destroyed the upper level of the archaeological ruins. In this situation, the possible measure of conservation is only to record the remaining archaeological ruins and try our best to stop further destructions. Therefore, in this particular site necessary documentation of the ruins with line drawing and photographic survey of records has been done. The local people are requested for not disturbing their field digging deeper than two feet and local authority is also directed to protect and maintain the archaeological site.

4. Lumbini and Kapilavastu:

Number of archeological sites are identified in this area. Lumbini, the birth-place of Lord Buddha, Tilaurakot, the ruined capital township of ancient Kapilavastu are prominent among numerous archaeological sites of this area. The archaeological sites as Banjarahi, Paisia, Gotihawa, Niglihawa, Araurakot, Kudan and Tilaurakot are well demarcated and fence with barbed wires. Watchmen are deputed for 24 hours. Thus they are safeguarded from all types of encroachments and vandalism. To conserve the excavated architectural remains of Tilaurakot, some scientific measures have been adopted. To check the water-percolation and weathering process, few courses of new bricks have been provided with new mortar on the top of the structural ruins. The size of bricks and the colour of mortar are used to tone to the original one. This provision has not only arrested

the water percolation but also strengthened the top of the ruin structures. It also helped to safe the structures from stepping and walking by the visitors. Same techniques have been applied to conserve the twin stupas of Dhamnihawa, near Tilaurakot, but unlike the technique mentioned above, instead of new bricks original brick-bats are used here.

5. Mustang

Mustang is located in the trans and cis-Himalayan region of central Nepal. The whole area of Mustang is drained out by the river Kaligandaki. The steep pebble conglomerate cliffs along the Kaligandaki and its tributeries are adorned with group of caves, scooped out by the ancient settlers of the "cave city" in the region. In the vicinity of the cave settlements, there are several habitational ruin sites too. The climatic condition of Mustang area is arid and cold throughout the year. Humidity and rainfall in this region is also very low. This climatic condition is very suitable for preserving the cultural properties. Most part of this area is barren and sandy. Very limited lower valleys are cultivated and the size of population is too small, which has prevented archaeological sites of this region from encroachments by the habitants and cultivators.

Due to the rejuvenation of the river system, almost all caves of the Mustang region have become inaccessible without the use of a ladder or other climbing equipments. This situation has benefited the site to remain completely free from human and animal vandalism and encroachments. The arid and cold climate has also helped prevent the cultural property from decaying. Thus we can tell that the archaeological sites in Mustang are well protected and preserved.

6. Other explored sites

Besides the sites discussed above, there are

hundreds of other explored sites in Nepal. Of them the Kicchakbadh in Jhapa district, Bhediari in Morang district, Murtiya in Sarlahi district, Kakrebihar and other two ruin mounds in Surkhet district are well demarcated and well fenced with barbed wires. They are well protected from the bricks and stone robbery as well.

The above discussion has comprehended the problems and applied measures related to the conservation of archaeological sites in Nepal. To conserve archaeological sites, His Majesty's Government of Nepal has formulated proper rules and regulations. Important explored and excavated sites are well demarcated and fenced. Watchmen are also deputed in some of the sites. Even in extensively cultivated and habitated sites like Simraunagarh, the local people are requested for protecting the site by not digging their field deeper than two feet and the local authorities are also advised to watch and maintain the regulation.

In conclusion, it can be said that both administrative and scientific measures of archaeological site conservation are actively and effectively executed and the explored as well as excavated archaeological sites of the country are almost safe and intact.

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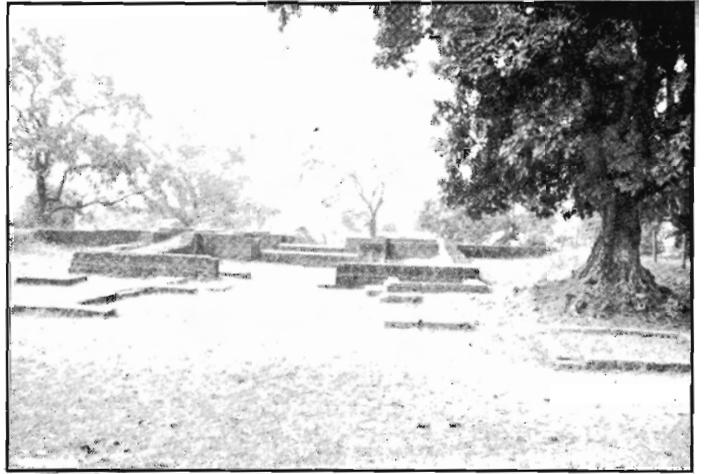
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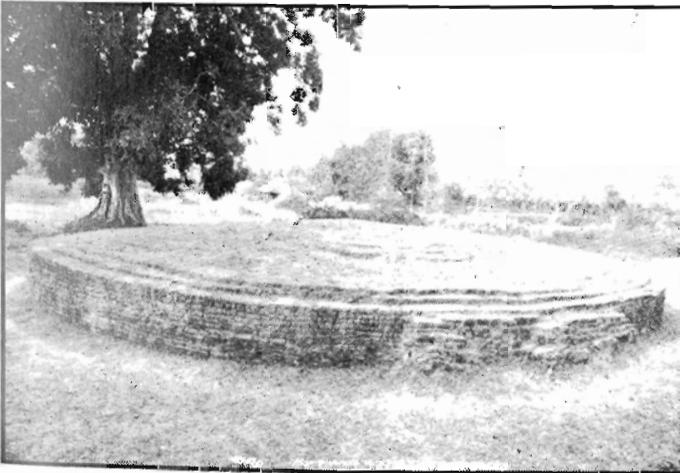
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1. Conserved remains of eastern gate of Tilaurakot (Ancient Kapilavastu)



2. Conserved western gate of Tilaurakot (Ancient Kapilavastu)



3. Conserved excavated Stupa of Dhamnihawa

4. Kudan Excavated site



5. Gotihawa, with barbed fencing

6. Ramagram Stupa in preserved condition

