



History of the Origin and Development of the Concept of Forts and Fortifications

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Abstract

Forts and Fortifications dotting the landscape of Madhya Pradesh, are a living testament to the rise and fall of political powers, the rising glory and sinking fortune of the surrounding populace, a mute witness to the heydays of their glory and the pain of their fall. The socio-political fabric of the society merges subtly, yet deeply into the character of its ruling elite and the monuments that they built. It can be said that the people inhabiting a place and their culture intrinsically determines the monuments that are erected by their rulers and vice versa.

Key words: Forts, culture

Introduction

Fort and Fortification have existed since times immemorial. Their locations circumscribed the periphery of rulers. Their architecture evolved with the demands of the time and availability of resources. Thus, a fort built to defend a richer hinterland/important trade route like Gwalior and Narvar, were meant to sustain long siege and enemy onslaughts. Juxtaposed against them are forts like Moti Mahal, Ram Nagar, Mandala which were built to defend against attacks by warring tribal armies. Forts like Ajaygarh and Narvar served to complement their adjoining forts of Kalinjar and Gwalior respectively. Within the same fort, we notice how the new rulers reinforced the defences as in Gwalior, Asirgarh and Chanderi, to safeguard them.

Initially, the forts provided protection against wild animals, and attacks by local chieftains and warlords who mostly depended on infantry assaults to win. Accordingly, the forts were built to preclude such attacks. The advent of cavalry led to usage of moat and higher walls. Defence against war elephants who were used to tear down gates of the fort was achieved by putting riveted spikes on gates. The advent of gunpowder and cannons led to multiple protection to the outer walls, construction of battlements to mount cannons, and building of sloping walls to deflect cannon balls. Long range artillery, aerial bombardment and mobile warfare sounded a death knell for forts as a viable defensive architecture.

Development of the Concept of Fort

The Vedic literature first bring out the importance of fort and used the word- 'Loh'- to refer to an unwinnable fort. As early as in the 6th century B.C. Sodasa Mahajanapadas- Sixteen Mahajanapadas, also, had well-built forts. Silpasastras, one of the oldest texts on construction in India, classifies forts according to the material used e.g earth, brick, stones, masonry. It also delineates forts by shape e.g polygonal, hexagonal, octagonal, circular etc. Manu describes six types of forts classified by Yagnavalkya and Chausanas, which are as follows1 :-

- Dhanudurga (Desert Fort): They are situated in desert areas with adjoining area being completely devoid of water for 20 kros
- Mahidurga (Earth Fort): These forts are built out of mud, rock and bricks. Texts stipulate twice the height of wall as compared to their width. Their top should be broad enough to support patrolling by sentries.
- Jaladurga (Water Fort): It is situated within a water body, making access to it very difficult. A sub category of this type is the Sthala Durga (Land Fort) which is situated on a high ground and is surrounded by stagnant water or a lake.



- Vrکشyadurga (Forest Fort): Such forts are situated amidst dense forests with a green cover of 4 kors on all sides.
- Nrdurga or Baladurga (Man Durga): These forts are protected by elephants, horses, chariots and infantry.
- Grihadurga or Parvatdurga (Hill Fort): These forts are situated on hilltop and have a good source of perennial water supply like ponds and baolis.

Silpasastra elaborates five elements of architecture in fortifications which are as follows2:-

- Vapra (Mound): It is an architectural intervention whereby a mound is raised on a flat land and a fort built atop. The raised platform provides a good plinth to build a fort, doesn't allow water to enter in easily and provides better protection against an enemy assault.
- Parikha (Moat): The raising of mound in Vapra is accomplished by digging the adjoining soil creating a protective moat when filled up with water, crocodiles, snakes etc.
- Prakara (Fortification wall): Generally made of mud mortar, bricks, stones, and rubble, they provide the first line of defence to a fort. They have thick base which thins out at the top to hold the weight of the wall. State emblems were embossed on them to identify their overlord. Lofty Gates guarded the inward passage. Watchtowers, merlons, crenellations, battlement parapet provided additional protection and methods of mounting a counter attack.
- Attalakas (bastions): Built along the fortification wall, they provided excellent location to mount a watch and to attack the enemy.
- The Entrance Gate: They were built of sturdy wood with embedded nails to deter enemy charge. They were crowned by loopholes through which hot liquids, arrows and stones were hurled at the charging enemy.

The Fort walls were adorned with merlons and crenellations. They added an element of aesthetic appeal and were important tool to attack enemy too. Indian sub-continent generally had the merlons in a rounded form and are made out of random rubble masonry in lime mortar. Rounded merlon is distinct to the Indian subcontinent, and is opposed to the Ghibellian and Guelph merlon styles prevalent in early medieval European fortifications. They were flanked by crenellations on either side. Vertical slits were drilled into them to provide a good vantage point to watch the enemy from the security of fort and mount an attack when the opportunity came.

Similarly, machicolations were used to pour scalding hot oil or water on enemy at the gate. They can be found on top of the entrance gates. Embrasures were used to discharge cannons and are found in Gwalior, Narvar, Asirgarh, Chanderi and Mandu Fort. Chemin de Ronde- a protected walkway reached by a short flight of steps behind the battlement, were provided along the battlement at important junctions. It was used for patrolling purposes as well as for defensive purposes. An abundant supply of water is essential for livelihoods and to the upkeep of a fort. Paucity of water could lead to abandonment of towns and cities, and even forts. Fatehpur Sikri, which was Akbar's seat of power, was abandoned fourteen years after it was completed due to lack of availability of water and the capital was shifted to Agra. Thus, water is essential to life and livelihoods.

In the medieval era, water was used as a weapon of war to weaken enemy infrastructure. This was done in two ways: through diversion and deprivation. Offensive siege tactics often involved a blockade, which meant food and water supplies to the fort were cut off in the hope that it would lead to starvation of the fort dwellers and thus their eventual surrender. Blockade could also involve the capture of water infrastructure such as wells and tanks and poisoning of water channels. Thus, a dependable water supply was an essential pre requisite for any fort.



Lastly, all forts had to have an escape plan to permit escape when the situation becomes grim or to insert spies during times of war. They were meticulously drilled into the hill and were largely unobtrusive. The system at Asirgarh was particularly useful for the purpose at hand. Observing the evolution of forts across the wide canvas of country, it emerges unequivocally that all forts are a sum total of constructions carried out by their holding masters. Thus, Gwalior fort, which held the pride of place in the Gurjara-Pratihara and Tomar period, had a curtain wall built to add to the defence of its entry gates during the Slave dynasty rule. Additions were subsequently made during the Mughal rule too with a gate dedicated to Aurangzeb.

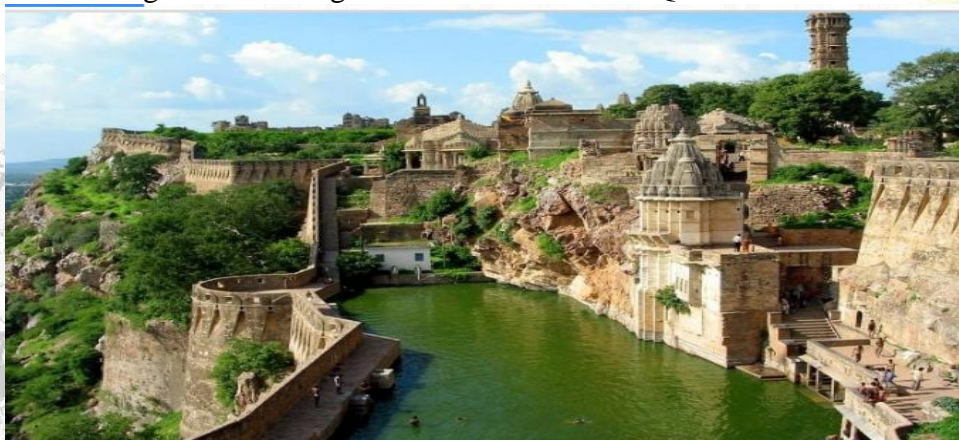
Forts were the principal symbol of defence of a kingdom in feudal period which lost its relevance with the usage of artillery and gunpowder in battles. Today they stand testimony to the glory of kingdoms long bygone and remind us of our rich historical and cultural heritage.

History of Forts in Medieval India

The history of forts in India through the medieval era is a harmonious continuation of its past. Several forts built in the ancient times were fought over, captured, recaptured, destroyed and occupied over the centuries. Architectural changes reflected the changing atmosphere of the country. The developments during the medieval period are closely related to the military and political history of the subcontinent between the 13th and the 18th centuries. This section aims to throw light on the broad features of forts during this period.

The seeds of the Sultanate in Delhi were sown with the coming of Muhammad Ghuri and Qutbuddin Aibek. It was formally established by Iltutmish in the 13th century. At the same time, the Rajputs held sway over large parts of Northern India. They built hundreds of monuments throughout the rocky terrain of Rajputana and beyond. Among these, forts were prominent. The rulers of the Delhi Sultanate brought cultural influences from their land of origin. Cultural exchange went hand in hand with the struggle for supremacy between these two prominent powers. The architectural style which developed in the country during this time was a synthesis of indigenous traditions and influences from Central Asia.

Sultanate architecture involved the use of the arch and dome technique. This was not a Turkish invention, but was borrowed from Arabs who borrowed it from Rome. Before becoming privy with this technique, Indians used the slab and beam technique which involved putting one stone over another and covering it with coping stone till the gap was closed. The art of putting a round dome on a square building base, enabled rooms to have a clear view as no support structures obstructed the spaces. They used a fine quality, superior lime mortar for construction and the decorations involved geometric designs with verses from the Quran.



Chittorgarh Fort, Rajasthan



Apart from the pressing Rajput challenge, the early Sultans of Delhi also fought against the onslaught of the Chaghtai Mongols on the North-western frontier. Balban, one of the prominent early Sultans, ordered the repair of the Lahore fort to defend against them.



Ranthambore Fort, Rajasthan

It is under his rule that we see the appearance of the first true arch in architecture. This arch was made with the help of wedge-shaped stones which are held together with the help of a keystone at the centre. The Rajput states of Kalinjar, Bayana, Gwalior, Ranthambore etc. fought for independence in the western regions of the country. Under Allauddin Khilji (1296-1316), forts became of prime importance for the Turkish rulers. Khilji, one of the later Sultans, was known for his military reforms. He was the first to maintain a large standing army. Against the backdrop of the consistent struggles with the Rajputs of Mewar and the Bhatti Rajputs, he captured the three prominent Rajput forts of Chittor, Ranthambore and Jaisalmer. Additionally, he captured the fort of Mandu and diplomatically gave it to the Songaras, a branch of the Chauhan clan of the Rajputs from present day Rajasthan. Khilji built his capital at Siri fort, which became the second city of Delhi, to defend against the Mongol attacks. This was the start of the city fortress complex model which was continued by his successors. The entire city would be enclosed within fortified walls and institutions such as masjids, madrasas, temples etc. would be made inside.

Conclusion

Forts of Madhya Pradesh which were a subject matter of this research exhibit a combination of daunting ambition of their rulers as well as the masterly craftsmanship of a multitude of architect, masons and labourers who worked in hostile land to erect a glorious monument. They have fallen to the vicissitude of time but falling ramparts ill hide the awe that they elicited from the populace in times past. They help coagulate a combination of soldiers, artists, musicians, craftsman into a distinct community which has withstood the ravages of time. Some like Gwalior, Narvar, Ajaigarh and Asirgarh have emerged into the modern age as a rallying point for nationalism in the local inhabitants while others like Dhar have given rise to the cultural renaissance of Malwa. Mandu is working wonders for an upswing in the regional tourism while Chanderi lives on through her textile. The Forts of Gond kingdom-Singorgarh, Deogarh, Madan Mahal, Moti Mahal, Ramnagar form the nucleus of Gond pride. Kherla is beginning to find resonance in the heart of people of Betul which will undoubtedly lead it to be incorporated in the list of monuments protected by the Archaeological Department of Madhya Pradesh. Forts symbolise an epoch of past glory as well as a continuing and alive socio-economic and political



tradition which is as inextricably woven into the life of the adjoining community, as it is in the hearts of all the people of Madhya Pradesh.

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