

Architecture as Nuclei of Social Systems: Past and Future.

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Abstract: 'Gadhi' structures- the fortified strongholds of farming and warrior families in rural settings, memorials and temples are seen scattered around Solapur region. Using observation, documentation and architectural analysis of structures as the foremost research method and the history books as secondary sources the paper explores some examples of such buildings to comment upon the localization of building elements responding to rural life-style. Based on data collected over last decade about scattered historical structures and precincts in villages of Solapur district, this paper comments about the loss of value in rural life leading to negligence, ignorance and final deterioration of historically important, functionally efficient, simple yet elegant structures. Pertinent observations are made about the disjoint between the current rural social life, economy and culture and the traditional planning and architectural wisdom apparent through the residue of historic buildings. Patronage, availability of skilled craftsmen and materials at local level and local needs shaped the particular local flavour of regional styles. Ancient temples in this region were also restored in 18th and 19th centuries through patronage from important families while some were built anew. These structures anchored the rural settlement firmly in the surrounding countryside and even created an identity for the settlement. The families associated with it earned fame, respect and power through their patronage of cultural festivals played out in the physical setting created by prominent architecture. The paper looks at the history of the patron families and the villages which developed around the architecture and the reasons for the current sorry state of these structures. It argues that the connection between rural social system and residual historic architecture must be reformed for a better future of these buildings and the rural settlements.

Keywords: Solapur region, 18th and 19th century, Gadhi Architecture, Historic Architecture. Nuclei of social systems.

1. Introduction :

India is a country with diverse geo-climatic regions which were central to the development of varied cultural and architectural traditions over its long history of civilization. In addition there were many outsiders who travelled, attacked, and conquered the parts of the Indian land at various phases in history. These foreigners brought their language, culture and the way of living with them which were assimilated by the local culture in due course of time. On this background we can see that there are some concepts, philosophies, cultural and architectural traditions which have a presence at pan-Indian level while some of them developed distinct identities in distinct cultural regions distinguishing themselves from the greater traditions. These little traditions impart the distinct regional flavour to the culture- architecture of a certain region. It is important to record these regional nuances for posterity and also for their educational value.

This paper attempts to document and analyze the rural architectural prototypes and their role as the nuclei of the rural settlement from a socio-cultural as well as historical perspective to comment upon their relationship. It hypothesizes about the value of this relationship to the well- being of the social system of the time and argues that the disintegration of the balance is reflected in the changed relationship between the architecture and the rest of the settlement.

2. Relevance of the study

Numerous beautiful and historically important structures of various types, sizes and purposes are existing all around the countryside which were in use until late 20th century. With the increased speed of rural to urban migration due to several economic and developmental reasons, many of these structures are neglected, dilapidated, encroached upon or turned into garbage bins. Moreover they are no more useful or important to the rural community due to fast changing socio-cultural practices. However these structures are the only objectified residues of certain historic phases of the region, repositories of traditionally developed construction and design practices which were not only specific to the local culture but also environmentally appropriate and sustainable. The conservation and adaptive reuse of these structures is a great necessity and this paper shall be a step towards mobilizing such efforts.

3. Background and context

Maharashtra, the western state of India is a land of great antiquity. The great Sahyadri ranges on west forming a narrow coastal area to the Arabian Sea, the Satpuda range on north, the Balaghat ranges in the center and a vast plane between these popularly known as the Deccan Plateau interspersed with valleys of major rivers such as Godavari, Bheema and Krishna all emerging from the folds of Sahyadri have created a land of great geo-climatic and cultural variety. The civilization thrived here since chalcolithic times (1800-1200 BC) (Sankalia et al, 1971). Numerous dynasties bestowed the land with great cultural and architectural assets. The Mouryas, Satvahanas, Rashtrakutas, Vakatakas, Shilaharas, Chalukyas and Yadavas were indigenous dynasties after which there were Islamic rulers of foreign origin. Many of the rulers and their nobles were great patrons of art, architecture and cultural activities. Mahanubhavas, Natha, Siddha, Datta and Vaishnav, Veershaiva and Sufi cults provided the religious backbone to the society (Oturkar et al, 1977). In the valley of Bheema the Varkari cult thrived through centers such as Pandharpur, Alandi, Dehu through the annual cycles of pilgrimage and associated rituals and encompassed the entire Marathi speaking region. The Marathi culture developed on this background irrespective of events on the political front. Eventually the political events also influenced the socio-cultural realm.

Agriculture was the major occupation of the people who lived in villages until the late 19th century and their architectural needs were few. In late 19th and early 20th century exploitative colonial state policies and local industrialization led to destruction of rural small scale industries and migration of rural artisans to towns, cities and mega cities. The migration continued even in 20th century for reasons such as famines, irrigation problems, lack of employment, slow development and so on. Notable architecture such as forts, temples, protective walls and gates, step-wells and ghats was constructed in rural areas in the glorious phase of indigenous dynasties upto 13th century, which continued with reduced zeal even during rule of islamic dynasties. Instead of temples, mosques and tombs were built and there were considerable stylistic changes. The residential structures such as wada and gadhi and utilitarian structures such as step-wells, rest houses etc assimilated the stylistic influence of Islamic architecture and continued to evolve as centuries progressed. Indigenous Maratha dynasty was established in 17th century and expanded its operations in 18th century to cover the major part of the Indian sub-continent.

Marathas evolved an unique architectural style by combining the local Deccan Islamic style with north indian influences. It revived forts, restored and expanded temples and town walls and newly built many forts and temples, wadas and gadhis, memorials and utilitarian structures. In this phase rural architecture acquired the elements of Maratha architecture. While percolating to rural level many decorative elements were reduced in view of budgetary constraints and availability of skilled craftsmen. The minimal, starkly simple forms of utilitarian architecture such as step wells, wada and gadhis anchored the rural settlement around them. This paper presents two such cases to comment upon their central role in the rural community.

4. Research Focus

It is important that the socio-historic role of rural architecture is understood before any attempts of conservation are made. This shall enable us to place them in the physical as well as cultural context.

4.1 Research Questions

What was the importance of notable architectural specimens in a certain rural settlement, as seen from its location and practices of use.

What was the contribution of notable rural architecture to the settlement in terms of social and cultural practices and perception? What is the current state and role of such architecture in the rural settlement.

4.2 Aim

To understand and assess the importance of historic rural architecture and comment upon the possibility and practicality of its conservation.

4.3 Objectives

To identify, document the examples of historic architecture of private residential types.

To understand the social, cultural role of the examples in their respective rural settlement.

To understand the economic and political setting in which the architecture was created and existed during its life.

To understand why and how the architecture lost or maintained its connect with the community.

To identify the pattern or the lack of it in the relationship between the community and the architecture and to suggest measures to conserve the buildings.

4.4 Scope and limitations

This research is limited to historic structures in rural settings in Solapur district. It only considers private residential architecture of eminent rural officials. It is based on data collected over last decade in various visits which were not specifically made for this study. The study is limited to making some observations about architectural value, socio-cultural practices and the change in them and uses only qualitative methods.

5. Literature review

Step wells were built on the basaltic plains of deccan, the present day Maharashtra by all the historic dynasties of Vakatakas; Rashtrakutas and Chalukyas. They generally built the wells in Circular, square and octagonal shapes (Jamkhedkar, 2002). More recently during Maratha rule in 18th century, water related architecture was again given great attention. Under the peshvas elaborate water supply schemes were designed and executed especially in Pune. Under ground network of stone- built canals and terracotta pipes brought in water from the rain water collection tanks on the outskirts of the town and supplied it to a series of water storage tanks above the ground (Mate, 2008). Historian A S Pathak describes the range of water structures built since ancient times till 18th century in his work 'Traditional Water Management and Water Architecture of Maharashtra (2017). However he discusses only a few important examples of step-well variety. Many of the step-wells were multi-storied and sometimes even surrounded by pavilions, colonnades and chambers.

Wadas were not only residences of elite families, but it was also a form which evolved in response to local climatic and socio-economic context. It was most appropriate for the cultural practices and social norms, security needs and available sites and budgets. In addition it offered various kinds of spaces for users of different age, gender, social status and economic class. During various times of the day and the year, it offered climatic comfort. It was adaptable to all resource conditions and could be enlarged in horizontal and vertical directions as required. The local materials, techniques, arts and crafts were used in construction of wadas giving it a distinct local flavour (Dengle, 1998; Gupta, 2013; Sahasrabudhe, 2017). The exemplary examples of wadas, gadhis, ghats and temples were built by members of Peshwa royal family and their nobles during entire 18th and early 19th centuries which provided inspiration to more such buildings by wealthy merchants and bankers in smaller towns and pilgrim places all over Maharashtra. Patronage was thus very important for construction of good architecture (Sahasrabudhe, 2017). Along the way the construction techniques such as four point arches, vaults and shallow domes and onion domes were picked up and assimilated from Deccan Islamic Sultanate architecture (Pratinidhi, 2019).

The historic structures in the rural areas of Solapur district are from all the historic era discussed above, but the secular and utilitarian architecture which is still existing in good shape is from the Maratha era i.e. 18th and 19th centuries. Apparently the design and construction practices of Maratha era continued unabated even in colonial time till third quarter of 20th century in smaller towns and villages. However extant scholarly literature has scarce mentions or discussions of these structures. The relationship between architectural production and the rural settlement has not been discussed at all. This paper attempts to address the gap.

During Maratha era (mid 17th to early 19th century) the region of Solapur contributed many warriors, nobles and courtiers. They were gifted land parcels by the rulers (watan or jagir). (Deshmukh, 2009). This was a time of relative political stability and accumulation of wealth owing to Maratha army's winning forays in North India as well as increase in agricultural production. As a consequence great deal of building activity seems to have taken place. A number of courtyard houses of large scale -Wada in urban context and fortified compounds holding different buildings- Gadhi in rural context were built, whose remnants are still existing in the surrounds of Solapur (Gajare, 2016). Many step wells, town walls, town gates were also built around this time in almost all towns and notable villages of the region. Some historic temples of Chalukya and Yadava era were restored while some temples were newly built.

6. Theoretical framework

All around the world the interest in historic architecture and cultural landscapes was renewed in last few decades of 20th century owing to the threat posed by the forces of homogeneity caused by urbanization and globalization processes. The UNESCO (United Nations Educational, Scientific and Cultural Organization) prepares and updates the list of world heritage sites acknowledging the universal human values and endeavour, art and craft, architecture and the cultural traditions along with sites of natural beauty and value. (<https://whc.unesco.org>). International organizations such as ICOMOS have framed guidelines and policies/ strategies for protection and conservation of architecture, precincts, and cities of historic importance.

It's widely accepted that notable architecture of any form and type affects human life and values in many tangible and intangible ways. It contributes to the identity of a place, shapes settlement characteristics and provides impetus to socio-cultural transformations (Colak, 2019). The site specific design responses are repeated in similar situations, inspire thematic explorations and variations and over the time get accumulated in a body of knowledge, practices and responses which can be sometimes termed as 'style'. The style in turn contributes to specific identity of the type of architecture and binds it with a region- era- producer- people. Since architecture has longer life than people, it often remains as an object symbolizing certain era and becomes the repository of knowledge about design and construction practices, way of life, socio-cultural norms, and economic conditions of

certain people in a certain era. This line of thought accords importance to local variations of a regional style. Within this framework here is an attempt to comment upon the role of architecture in rural settlements of Solapur region.

Another point to consider is the meaning and temporality of the word 'rural'. Many towns which were important historically have now fallen back to the rural status due to various reasons. In precolonial time there were no great differences between towns and villages. There were only a few great cities, which were royal capitals of reigning dynasties. With change of political regime many cities lost their purpose of existence and were fast relegated to secondary even tertiary status, while new transport linkages and establishment of industries pushed some other towns on the fast track of development. Thus something that was urban in 18th century is probably semi-urban or rural according to contemporary standards.

7. Notable architecture in rural settlements: Surrounds of Solapur

7.1 Deshpande Gadhi at Dhotri

Deshpande Gadhi at dhotri, about 10 km from Solapur town, some 6 kms from the highway leading to Hyderabad- NH 65, is a major landmark in the small village. 'Deshpande' and 'Deshmukh' were important village officials often supervising and collecting revenue for a bunch of many surrounding villages and having an administrative seat at a convenient place. Their earnings were substantial, in terms of grain, land parcels and currency (Gajare, 2016). The gadhi was probably constructed in 18th century to supervise the large farmlands spread around, which may have encouraged small farmers to settle nearby and begin the settlement.

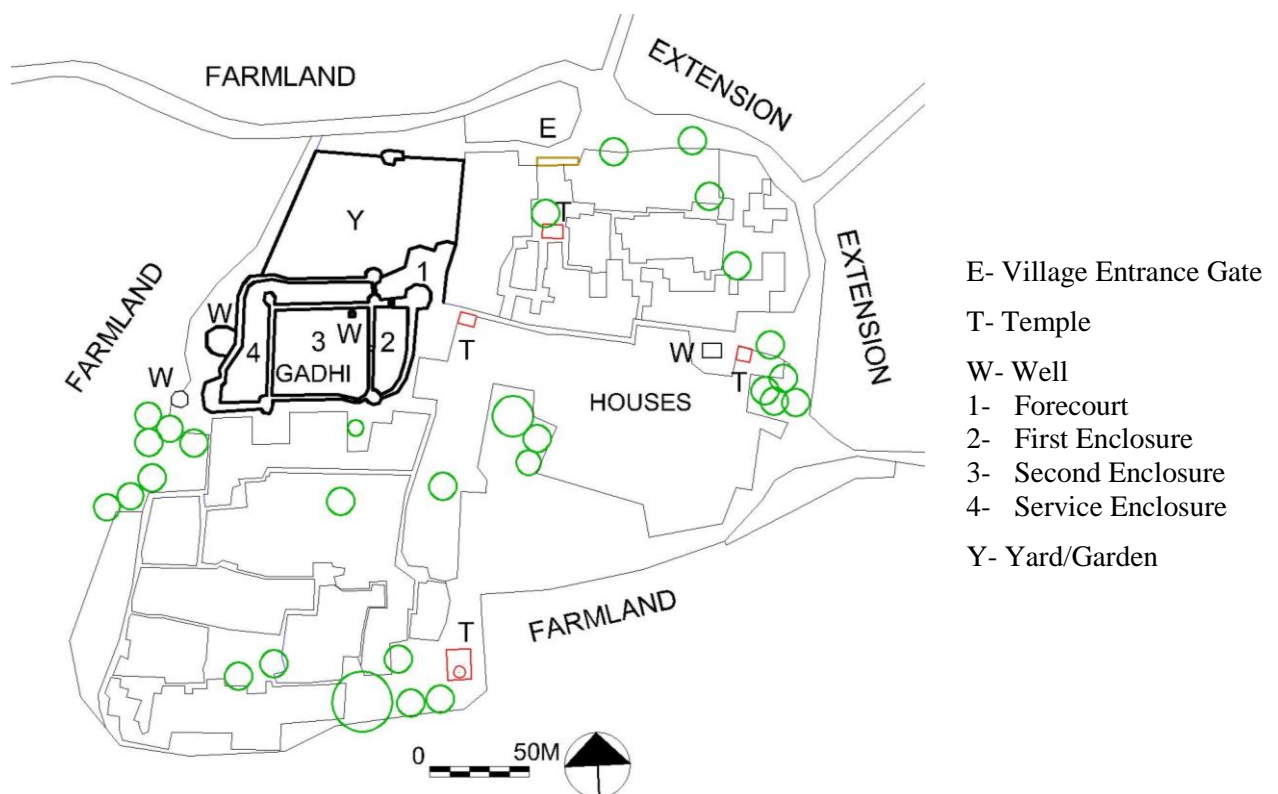


Figure 1: Dhotri Village Layout showing the relationship between Gadhi and village.

(Source: Map developed by the author based on Google Earth images and field observations)

The settlement has grown on east and south of the Gadhi, while farmlands abut on west and north (Figure 1). Post-independence the village has grown on North-east in more formal grid-iron pattern. The older settlement however has an organic form sub- divided into blocks of various occupational communities. The houses maintain sufficient distance from the gadhi wall to let pass a

pair of bullock carts. Major lanes in the village also have the same width. Smaller lanes however are not so wide or straight. The majority of houses are also built in stone, have courtyard wada form and have only single floor. Very few buildings have upper floors (Figure 6 & 7).

The bastions of the gadhi are 2-3 floors high and the enclosure walls are equally tall. The gadhi can be seen from everywhere in the village and also from the surrounding farmlands at about 200 m distance (Figure 3, 4 & 5). The village gate is clearly constructed in late 19th century (Figure 2). The Shahabad stone used in it was available in Solapur only in the last decades of 19th century when it could be transported from Shahabad Wadi through railway wagons.



Figure 2: Entrance Arch to Dhotri village (probably early 20th century)



Figure 3: Dhotri village from west (Backside), probably 18th century



Figure 4: First Gate, Dhotri village



Figure 5: The village deity temple right next to the Gadhi bastion. (2, 3, 4, 5- Source: Author)



Figure 6: The relationship of the houses and the Gadhi Enclosure wall



Figure 7: A lane in the village. (6&7-Source: Ar Shveta Kothavale)

Structures except the gadhi enclosure walls have not survived. The Family probably migrated to Solapur in late 19th century. Dhotrikar Deshpande were renowned bankers and money lenders in town till mid- 20th century. The family built wadas, bungalows and chawls in town. The gadhi may have been neglected during the time. The fate of the family after 1950 is not known. The gadhi is now sold to Hotgi Brihanmath, a Veershaiva religious organization, who may protect and conserve the walls for some more decades. However the villagers do not have everyday relations with the Gadhi anymore. Only a swami of a minor order worships the Shivalinga on a semi-covered platform in the first enclosure. Only a swami of a minor order worships the Shivalinga on a semi-covered platform in the first enclosure.

7.2 Deshmukh Gadhi at Malkavathe

The other such Gadhi is situated at Malkavathe in South Solapur taluka of Solapur District, about 15 km from Mandrup, on Solapur- Vijapura Highway NH 52. The Deshmukh family once owned about a thousand acre farmland in surrounding 40 villages. Their administrative seat was at Malkavathe in the form of a large Fortress- like Gadhi. It was equipped with 4 bastions, 3 enclosure walls, 3 major courtyards, horse and cattle stables, servants' quarters and owner's residential wada. Probably built in late 18th century the structure has an imposing presence in the settlement. Located near the junction of arterial road joining with town and smaller roads to nearby villages, it has open spaces on front and side, after which the villagers' single storied houses are arranged (Figure 8 and 9). The village deities' temples are located nearby. An ancient 12th century Shiva temple nearby indicates the strong Shaivite leanings of the people and the antiquity of the village, which was perhaps the reason for selecting this village for construction of gadhi.

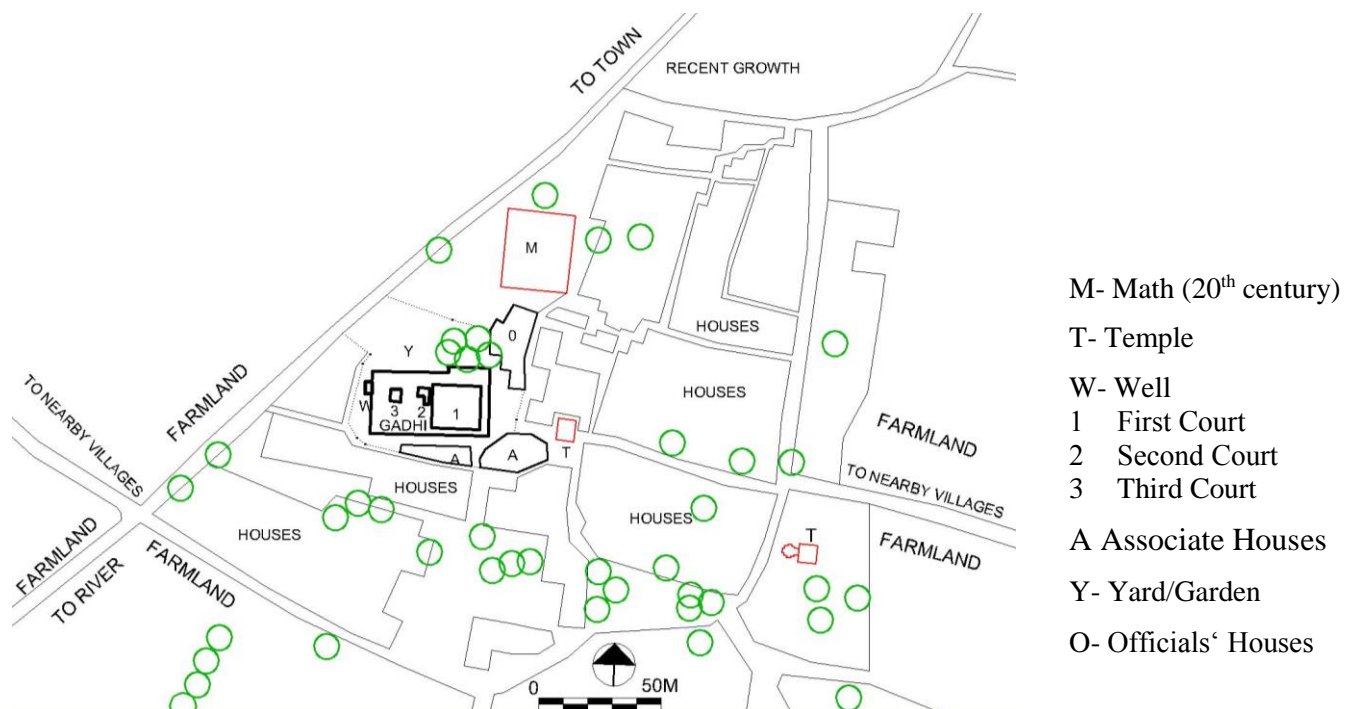


Figure 8: Malkavathe Village Layout showing the relationship between Gadhi and village.

(Source: Map developed by the author based on Google Earth images and field observations)

The gadhi was clearly constructed in late 18th century as any colonial influences are conspicuously absent in the original construction. However some additions such as part first floor around second court and a modern bathroom with European fittings on west side were added probably in early 20th century. The extant remains of the structure are sufficient to give a fair idea about the original grandeur of spaces (Figure 10- 15). The treasury room is hidden in one of the bastions, the puja room can be accessed from office court. The kitchen offers the view of the office court and

external court through a hidden window which enabled the matriarch of the family control household and estate affairs together. The associates and officials working for the estate were housed in the vicinity of the fortress. A large yard around the structure enabled training of cattle and horses. The construction of the Gadhi was strong enough to withstand robbers' raids. Small apertures in the enclosure walls enabled use of firearms for defence.



Figure 9: Deshmukh Gadhi from North West. (Source: Author)



Figure 10: First Gate



Figure 11: Second enclosure, second gate seen from outer court



Figure 12: Second court, third gate



Figure 13: Woodwork detail

**Figure 14: Kitchen Court****Figure 15: Third court, with holy basil platform**

(Source: Author and Ar Shveta Kothawale)

8. Observations

8.1 Architectural features

The hierarchical nature of the social and political system generated the form with multiple enclosures where privacy, practices of purity and gender segregation could be maintained. The grand scale of enclosure walls and courtyards within was necessary for underlining the importance of the reigning officials, as well as allow grain storage, supplementary farming tasks and cattle sheds on large scale. The spaces were large and flexible enough to accommodate needs of expanding family, additions and alterations within original structural framework. The architectural features of both these examples such as four point arches, bastions, thick specially prepared mud enclosure walls with both side lining of basalt stone in lime mortar, hidden chambers, wells and tanks, residential spaces arranged around courtyards, very stark and minimal exteriors indicate the response to spatial needs, security needs and social- cultural needs. These features continued the tradition of construction practices at the same time innovated to fulfil special needs. The woodwork in Malkavathe gadhi is more elaborate and refined than that found in town wada houses indicating the wealth and importance of these rural seats of governance, and the continuity of traditional craftsmanship without colonial time simplification.

8.2 Relation with the settlement

Though the relationship of the Gadhi and the settlement was symbiotic, the gadhi owner family was responsible for safety and subsistence of the villagers. In return they commanded respect, priority and obedience. The cultural festivals were sponsored by the reigning family which usually began and ended in the Gadhi Yards (Gajare, 2016). The relation is well exemplified in the physical form of the village, where the Gadhi has a major presence and the village orients itself towards the gadhi. On the other hand the gadhi can be approached through the village and also directly from the access road, showing that affairs of the gadhi were conducted independently of the village.

9. Conclusion

Both these cases are representatives of dozens of large sized residences and mansions strewn around the villages in Solapur District. In both these cases it can be clearly seen that the village

developed only because the Gadhi was built. The landlords built these imposing structures so that they could supervise their farmlands, store the agriculture produce and keep the wealth generated through it in safe custody. Both these families were upper caste families in 18th century social system. They may have had political connections or engagements in their families' past history which elevated them to the important position as landlords, however they did not directly engage in any political activities since 19th century.

There is great difference in the Gadhi building and other houses and temples of the village in terms of area, size, form, technology and material expression. The village layout is also oriented towards the gadhi clearly showing the hierarchical relationship and the central position of the building in the settlement. The structure was symbolic of the social, cultural, economic and political power of the patriarch of the family, rather the architecture was the expression of that power and in turn helped to consolidate it. The villagers were totally dependent on the Gadhi and its owners for their subsistence and security and were probably employed in the Gadhi, or the farmlands or provided various supplementary services in their traditional roles. Thus the notable architecture of Gadhi was the nucleus of the village and anchored the rural settlement in the vast landscape of farmlands and wilderness. Many such important structures were historically developed prompted by the social, political and occupational structure of the medieval society, which patronised and carried forward the traditional wisdom of building design and construction.

The imposing form and architectural spaces of these structures are artistic, efficient and climate friendly. They have lasted for about 300 years and are now crumbling without creating environmental problems. They show our ancestors' deep understanding of the local climate, local materials, local cultural ethos and the patron's needs. The design response is so wonderful that no modern structure can ever hope to compare with them on all these counts. The form itself is adaptable to any resource condition and any site context. The structures are repositories of knowledge about sustainable construction techniques as well as minimalist design efficiency. Though situated in rural area, the structures employed all the advanced design and construction techniques of the time. They are standing long after the urban structures of similar antiquity have long gone. The study of these structures is important to understand the social structures, way of life and the construction practices of the medieval Maharashtrian rural society.

10. The way ahead

Both these gadhis were occupied until mid- 20th century, after which due to various reasons they remained vacant and unused. The farm-land ceiling acts and family divisions removed the need for such gadhi structures. Presently the owners of the Gadhi do not occupy important social position in respective villages and the Gadhi structures are fast deteriorating. Still their imposing physical form commands respect and prompts nostalgia in the elderly villagers. For the children and youth, the Gadhi is a storehouse of novelty and wonder. Many stories are imagined and told, but no one knows the real history. Almost no authentic sources of information exist. Dhatri gadhi has been bought by a religious organization while last descendent of the Deshmukh family in his late seventies can't do much for the upkeep of Malkavathe gadhi due to his economic conditions.

Ideally, these Gadhis need to be restored and adapted for reuse. They can again become relevant for the rural settlement as public institutions or as economic generators through agro- tourism initiatives. The funds and initiative needed for this kind of a vision can be raised through public-private joint ventures. Though we currently do not have any models for this, we need to generate them soon. Architects, architectural institutions and heritage NGOs can play important role in documenting the rural structures and developing sustainable models for their conservation.

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