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Significance Assessment of Architectural Heritage Monuments in Old-Goa

B. Shankar, ¹ Shaikh Ali Ahmed²

¹Associate Professor, Institute of Development Studies, University of Mysore, Mysore ²Planning Assistant, North Goa Planning and Development Authority, Panaji

Abstract: Old-Goa has been declared as a World Heritage site in 1986 for its rich culture, built heritage and includes many magnificent churches, monuments and temples. Most of these churches are world famous and constructed way back in the 16th century and are the best examples of Manueline and Gothic architecture. These churches have very intricate detailing and ornamentation reflecting the past and playing an important role in shaping the community to know about the ancient culture, way of life, architecture, level of development, building techniques, and use of material, art and other aspects of the society of a particular period. The rich heritage structures are on the verge of deterioration and alarms for effective management. The surrounding areas are getting developed in a non harmonious manner without any due respect to the fine existing architecture. The detracting and non-contributory buildings will deface the heritage area losing its identity due to non harmonious approach by the agencies and people. These heritage monuments and areas are to be made their significance assessment for undertaking the conservation and preservation. The paper deals with the significant assessment of the heritage monuments in the heritage area of Old Goa.

Keywords: Architectural Significance, Heritage, Conservation, Renaissance, Baroque.

I. Background of Goa

Old-Goa was founded in the 15th century as a port on the banks of river Mandovi by the rulers of Bijapur Sultanate and was the second capital of Bijapur under the rule of Adil Shah. The city was surrounded by a moat and contained the Shah's Palace, mosques and temples. The city was captured by the Portuguese in 1510 from the ruler of Bijapur. Old-Goa was thus a Portuguese colony and a principal city of Eastern Empire. Ruled by Portuguese ruler for almost four centuries, it has a number of Churches and convents which are date back to 16th Century and are the best examples of Manueline and Gothic architecture with intricate detailing and ornamentation.

The Monuments of Old-Goa are the blend of Hindu, Mughal and Portuguese styles of Architecture. Several churches and convents are constructed from 15th to 17th century A.D. These are constructed with laterite stones and lime plaster which displays the fusion of Renaissance and Baroque styles. These monuments include Se Cathedral, Basilica of Bom Jesus, Chapel of St. Catherine, Convent and Church of St. Francis Assissi and many others which are considered as the Architectural Heritage and come under the UNESCO World Heritage site.

II. Monuments in Old-Goa

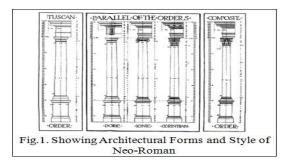
There are about fifty heritage sites and monuments in the Heritage areas of Old-Goa. Few of these are identified and managed by the ASI and State Archaeology. Remaining is managed by the local authorities. The UNESCO has declared seven monuments as world heritage monuments and sites namely: (1) Chapel of St. Catherine, (2) Church of St. Francis of Assisi, (3) Church of Our Lady of the Rosary, (4) Basilica of Bom Jesus (5) Se- Cathedral, (6) Church of St. Cajetan and (7) Church and Convent of St. Augustine in the year 1986. There are many more structures of high significance needs identification, conservation, and management.

III. Styles of Architecture and Idioms of Neo-Roman

Till 11th Century Islamic style of Architecture prevailed in parts of Goa. Post 15th century the style extended and encompassed all the continents of globe, a style that recovered the glory of imperial Rome and identified as Neo-Roman. Idioms of Neo-Roman have five orders of architecture i.e. Doric, Tuscan, Ionic, Corinthian and *Composite*. An order is a unit consisting of a fixed sequence of structural and decorative elements, interrelated by a distinctive proportion.

Except for the *Doric*, each order is tripartite, formed of pedestal, column and entablature. The pedestal is composed of base, die and cap; column is of base, shaft and capital; and the entablature of architrave, frieze and cornice.

Above the cornice there may be an attic or pediment. The orders most used in Neo-Roman Goa are the Tuscan and the Corinthian, which is described as follows:



The Tuscan is an Italian order; its column has a simple base and is unfluted, while both capital and entablature are without adornments. The capital has a miniature torus (large convex moulding, also known as an astragal), a necking that is a short continuation of the shaft, and an echinus (or quarter circle moulding), with a fillet above carrying a square abacus.

The Corinthian was invented by the Greeks and completed by the Romans. Its column has base, shaft and capital. The capital intricately combines volutes and

acanthus leaves. The shaft is fluted, the flutes sometimes partly filled with cables. The entablature is elaborate; its cornice, in addition to dentils, displays small brackets or consoles (also known as modillions), supporting its upper projecting fascia, itself often topped by a cyma recta moulding.

Typically Baroque is common in Goa is the salomonic column, a variant of the Corinthian and Composite. It has base, shaft and capital; its shaft is spiralled, with broad coils of rounded edges. Convex projections curve into concave hollows (channels). The shaft is divisible into zones, some unscrolled and some scrolled.

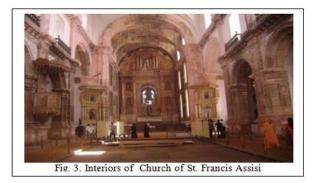
One variety of the Gothic is the Manueline, which arose during the reign of the Portuguese King Joao II, but is named after his son under whose rule it flourished, Manuel I. The style persisted in Portugal till the mid-l6th century and in Portuguese India till that century's end. One of its architects was Tomas Fernandes, who was in Goa from around 1505 to 1516, where the church was build in 1512 (Nossa Senhora da Serra, demolished).

IV. Monuments and Styles of Architecture

The Portuguese induced the western culture in Goa through their monuments during their four hundred years long imperial rule. Several monuments of Old-Goa like churches and convents are constructed during the period of 15th and 17th century A.D. These structures are constructed of laterite stones and lime plastered which displays the affluent Architectural fusion of Renaissance and Baroque styles. These monuments include Se Cathedral, Basilica of Bom Jesus, Chapel of St. Catherine, Convent and Church of St. Francis Assisi and many others which are considered as the Architectural Heritage and have been declared by UNESCO in 1986 as World Heritage site. Below are the few of the monuments showing the style of architecture in which order these are constructed



Fig. 2. Convent and Church of St. Francis Assisi



The Church was built on the same spot in 1661 by retaining only the existence of the earlier church. Built with laterite blocks and lime plastered. The exteriors of the church are Tuscan order while the main entrance is in Manueline style. The main Altar is in Baroque with Corinthian features.



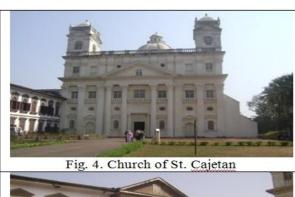




Fig. 6. Convent of St. Cajetan

The Church of St. Cajetan was built with laterite blocks and lime plastered. Italian monks of the theatines order built this diminutive dome church on the lines of the Roman Basilica. It has Italian renaissance in baroque and external with Corinthian style.



Fig. 7. Interiors of Se Cathedral

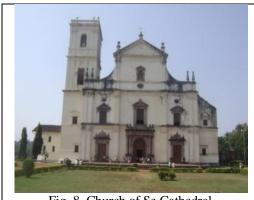
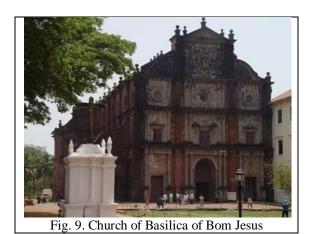


Fig. 8. Church of Se Cathedral

The Church of Se Cathedral was built with mud and straws in 1514 with three naves at the site of battle giving thanks to God and owes the success of the battle to St. Catherine. Built on raised laterite structure, covered with lime plaster and Mixture of Tuscan and Doric style with Corinthian columns.



Built with laterite, its exterior excluding the façade is without plaster, tiled roof and cruciform on plan. It has elements of five schools of Architecture, Roman, Ironic, Doric, Corinthian, and Composite style, built in Renaissance and baroque style.



Fig. 10. Casket of Mortal Remains of St. Francis Xavier in the Church of Basilica of Bom Jesus

V. Need for Significance Assessment

The 'cultural significance' defined as 'aesthetic, historic, scientific and social value for past, present and future generations'. Significance is thus an expression of the cultural value afforded a place, site or item. Understanding the significance of an historic building complex or area (the 'asset') and the possible impact of the proposed scheme on this significance is the key to good conservation practice.

Monuments of different styles are scattered all over the heritage conservation area of Old-Goa. As per the Regional Plan, the Conservation area admeasures 801 hectares and contains a number of heritage monuments and sites of high architectural significance. The styles of architecture like, Romanesque, Gothic and Neo-Roman are originated by the Greeks, where the roof is covered exclusively by lintels. Some of these vestiges are found in Kerala. Gothic was flourished in Goa during the tenure of Portuguese rule as variety of Manueline.

Corinthian and Tuscan are the two varieties of architectural styles of high significance are rarely seen in the entire country. The styles of high architectural significance are getting vanished due to non comprehensive approach in protecting it. These architectural styles are rarely available in the globe and fortunately the part of the built heritage in Old-Goa needs to be identified, assessed its significance for protection and management these monuments to future generations.

VI. Criteria for Assessment of Architectural Significance

Architectural assessment is conceded based on the style of architecture used in construction of the monuments like, Doric Corinthian, Tuscan, Ironic and Composite styles. These orders of architecture of high significance value are seen very rarely all over the globe. Harold Kalman's Criteria for evaluation and assessment of Heritage monuments is an accepted criterion all over the world and is to be adopted in assessing the architectural significance of high importance in Old-Goa. Table below shows the criteria used for assessment.

Table 1: Criteria Used for Assessment

Date of construction and grading							
Excellent		Good		Fair		Poor	
1500	to	1600	to	1800	to	1951 and	
1599		1799		1950		later	
10		08		06		04	

Architectural significance					
Indicators	Grading	Score			
Architectural Design	Out standing	10			
2. Architectural Style	Very good	06			
3. Architectural Condition	Good	04			
4. Architectural Elements					
5. Year of construction					

Evaluation of structures was conceded by incorporating proper indicators and the year of construction and proper ranking was done.

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A) The date of construction plays an important role in measuring the heritage structure. The three indicators are used to assess for grading, namely (a) year of construction, (b) technology used for construction, and (c) present status of the structure. These indicators were applied to measure the heritage structures and grading. The scores are given after assessing the monuments and added to get the total score. The monuments are ranked based on the scores.

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B) Architectural significance assessment was conceded as per the indicators mentioned in the (Architectural significance) table above. The significance grading and scoring are given based on their indicators and the details are depicted in the following table:

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Table 2: Significant Assessment of Monuments											
Name of	Architectura	l Significa	nce	Year of construction				e			
the Monume nt	Architectur al Style	Archite ctural Design	Architect ural Conditio n	Architect ural Elements	Year of construction	Technology used	Present status	Total Score	Ranking		
Basilica of Bom Jesus	Roman, Ironic, Doric, Corinthian, and Composite style (10)	10	10	As per the style of Fig. 1 (10)	Built in 1585 and rebuilt in 1783 (8)	Carved laterite exposed stone masonry and lime plastered (10)	Very good condition the control of ASI) (10)	68	I		
Se- Cathedra 1	Mixture of Tuscan and Doric style with Corinthian columns (8)	10	10	As per the style of Fig. 1 (10)	Built in 1631 (8)	Built on raised Carved laterite stone masonry and lime plastered (8)	Very good condition (under the control of ASI) (10)	58	II		
Church of St. Cajetan	Italian renaissanc e in baroque and external with Corinthian style (6)	6	6	As per the style of Fig. 1 (10)	Built in 1661 (8)	Built with laterite blocks and lime plastered (8)	Very good condition (under the control of ASI) (10)	50	III		

Basilica of Bom Jesus topped the rank followed by Se-Cathedral and Church of St. Cajetan and their individual total score are 68, 58 and 50 in the order of ranking respectively.

VII. Conclusion

The assessment of architectural significance of Monuments in Old-Goa includes Tuscan, Doric, Ionic, Corinthian, Composite and Manueline which are rare of its kind, seldom seen all over the globe. The historical monuments are treasures of architectural heritage and effort needs to be made to protect them through appropriate policies, laws, guidelines and regulations. As the buildings and monuments have their own life cycle and grow old with the ageing of their components and materials. Therefore, a systematic effort needs to be made for significance assessment of heritage monuments to ensure continuous and careful maintenance of the monuments and manage them without disturbing the original character otherwise there is likelihood of their damage. Although a lot has been

done to preserve the heritage of our built environment, a great deal more is required to be done in terms of developing the awareness among the people about the incredible architectural features of the monument which needs to be transferred to our future generation in terms of sustainable development.

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BIOGRAPHIES



B. Shankar received the B.E. degree in Civil Engineering in 1984, M.U.R.P degree in Urban and Regional Planning in 1989 and Ph.D. degree in Urban and Regional Planning in 1997 from the University of Mysore, Mysore. He is working as Associate Professor in Urban and Regional Planning at the Institute of Development Studies, University of Mysore, Mysore. His research interests to include Urban Planning, Community Development, Heritage Conservation, and Planning Legislation.



Shaikh Ali Ahmed received M.Tech in Urban and Regional Planning from the University of Mysore, Mysore. He is working as Planning Assistant in North Goa Planning and Development Authority, Panaji. Presently, he is pursuing his Doctoral degree in the University of Mysore, Mysore. His research interests to include heritage conservation and heritage legislation.