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THE GREAT LIVING CHOLA TEMPLES: ARCHITECTURE, ICONOGRAPHY AND ADMINISTRATION UNDER RAJARAJA I AND RAJENDRA I [985-1044 CE]

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ABSTRACT

The Chola dynasty of Tamil Nadu [850-1279 CE] represents the pinnacle of Dravidian temple architecture and statecraft in medieval South India. Under Rajaraja I [985-1014 CE] and his son Rajendra I [1014-1044 CE], the Cholas built monumental temples that are today recognized as UNESCO World Heritage "Great Living Chola Temples"¹. This paper examines the architectural innovation, iconographic programs, engineering techniques, and administrative systems associated with the Brihadeeswara Temple at Thanjavur, the Gangaikondacholapuram Temple, and the Airavateswara Temple at Darasuram. Through analysis of inscriptions, architectural treatises, and archaeological evidence, the study argues that Chola temples were not merely religious structures but instruments of imperial power, economic centers, universities, and hospitals². The paper highlights how Rajaraja and Rajendra used temple building to legitimize kingship, integrate diverse regions, and create a lasting cultural legacy that continues to function as "living" places of worship today.

Keywords: Cholas, Dravidian Architecture, Brihadeeswara, Rajaraja I, Rajendra I, UNESCO, Temple Administration, Engineering

1. INTRODUCTION

The period between 10th and 11th century CE witnessed the rise of the Imperial Cholas as a dominant power in South India and Southeast Asia³. Unlike earlier dynasties, the Cholas consciously used architecture as a tool of state policy. The construction of massive stone temples served four purposes: religious devotion to Shiva, demonstration of imperial wealth and power, creation of administrative-economic centers, and preservation of art and learning⁴.

In 1987, UNESCO recognized three Chola temples as World Heritage Sites under the title "Great Living Chola Temples"⁵. These are:

1. Brihadeeswara Temple, Thanjavur built by Rajaraja I in 1010 CE
2. Gangaikondacholapuram Temple built by Rajendra I in 1035 CE



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3. Airavateswara Temple, Darasuram built in 12th century

This paper focuses on the first two built during the peak of Chola power. Primary sources include over 250 inscriptions from Thanjavur⁶, copper plates, and architectural texts like Manasara and Mayamata⁷.

OBJECTIVES OF THE STUDY

The present study has the following objectives:

1. To examine the architectural features and engineering techniques of the Great Living Chola Temples built under Rajaraja I and Rajendra I.
2. To analyze the iconographic programs and religious symbolism embedded in Brihadeeswara and Gangaikondacholapuram temples.
3. To study the role of Chola temples as administrative, economic, educational and social institutions in medieval South India.
4. To assess the political significance of temple building as an instrument of Chola imperialism and state formation.
5. To evaluate the legacy and continuity of Chola temples as "living heritage" in contemporary India.

REVIEW OF LITERATURE

The historiography of Chola temples is rich and multidisciplinary.

K.A.N. Sastri in The Cholas provided the foundational political history and first detailed description of Thanjavur temple¹. *S.R. Balasubrahmanyam* gave technical analysis of Chola temple architecture and chronology².

George Michell placed Chola architecture within the broader Dravidian tradition and explained structural elements³.

Burton Stein analyzed temples as economic and political institutions rather than only religious centers⁴.

R. Champakalakshmi emphasized the role of temples in ideology and state formation⁵.

UNESCO Nomination Dossier highlighted the "living" character and global significance of the temples⁶.

METHODOLOGY

This study adopts a *historical and interdisciplinary methodology* based on:

1. Primary Sources: Epigraphical evidence from Epigraphia Indica and South Indian Inscriptions, copper plate grants, and contemporary texts like Manasara.
2. Archaeological Data: ASI reports, site plans, and architectural measurements of Brihadeeswara and Gangaikondacholapuram.
3. Secondary Sources: Standard works by Sastri, Balasubrahmanyam, Stein, and Michell.
4. Analytical Framework: Art historical analysis for iconography, architectural history for engineering, and institutional



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history for administration.

The study is qualitative and descriptive, focusing on textual and material evidence to reconstruct Chola temple culture between 985-1044 CE.

2. HISTORICAL BACKGROUND: CHOLA IMPERIALISM

The early Cholas were feudatories of Pallavas and Rashtrakutas. Vijayalaya [850-871 CE] established independence by capturing Thanjavur⁸.

2.1 Rajaraja I [985-1014 CE]: The architect of Chola imperialism. He conquered Kerala, Sri Lanka, and Maldives⁹. To legitimize conquest, he undertook massive temple building. The Thanjavur temple was both a religious act and political statement¹⁰.

2.2 Rajendra I [1014-1044 CE]: Expanded empire to Ganga valley and Southeast Asia¹¹. To commemorate Ganga victory, he built a new capital Gangaikondacholapuram and a temple to rival his father's¹².

The Chola state was highly centralized with _Perundanam_ [great officers] and village assemblies _Ur_ and _Sabha_¹³.

3. BRIHADEESWARA TEMPLE, THANJAVUR: ARCHITECTURE OF DIVINE KINGSHIP

Built in 1010 CE and dedicated to Shiva as Brihadeeswara¹⁴.

3.1 Architectural Features

1. Vimana: 216 feet tall, 13 storeys. The tallest vimana in India at that time¹⁵. Built entirely of granite. The _shikhara_ weighs 80 tons and was placed using a 6km ramp¹⁶.
2. Garbhagriha: Houses a 12ft Shiva Lingam, one of the largest¹⁷.
3. Nandi Mandapa: Monolithic Nandi 16ft long, 13ft high, carved from single rock¹⁸.
4. Prakaras: Two concentric enclosures with gopurams. Walls covered with paintings and inscriptions¹⁹.

3.2 Iconographic Program

The temple is a cosmic diagram. Murals depict Shiva as Nataraja, Dakshinamurthy, and Tripurantaka²⁰. The 108 dance poses of Bharatanatyam _Karanas_ are carved on the _prakara_²¹. A rare painting shows Rajaraja and his guru Karuvurar standing before Nataraja - the earliest royal portrait in India²². An inscription mentions a donation by a trader from Sumatra²³, proving global trade links.



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3.3 Inscriptions as Historical Source

Over 60 inscriptions record donations of land, gold, and personnel²⁴. One inscription lists 400 dancers, 100 musicians, and 57 singers attached to the temple²⁵.

4. GANGAIKONDACHOLAPURAM TEMPLE: IMPERIAL RIVALRY AND INNOVATION

Built by Rajendra I after his northern campaign to Ganga river around 1035 CE²⁶.

4.1 Architectural Comparison with Thanjavur

Rajendra wanted to surpass his father. While smaller in height 180ft vimana, it is more refined²⁷.

1. Vimana: Curvilinear with more intricate carvings²⁸
2. Lion Well _Simha Keni_: Unique feature for ritual water collection²⁹
3. Sculptures: Higher quality, more dynamic poses³⁰

4.2 Political Symbolism

The name "Gangaikondachola" means "one who conquered the Ganga"³¹. Rajendra brought Ganga water and a Shiva lingam from Ganga to consecrate the temple³². Inscriptions record grants from conquered territories including Srivijaya³³.

5. TEMPLE ADMINISTRATION, ECONOMY AND EDUCATION

Chola temples were not just religious. They were corporations and universities³⁴.

5.1 Administrative Structure

Each temple had _Devasthanam_ committee with officials: _Sthanattar_, _Kanakku_, _Tiruvilakku_ [lamp keeper]³⁵. Rajaraja's inscriptions detail salary in paddy for 600+ employees³⁶. [accountant]

5.2 Economic Role

1. Land Grants: Villages donated as _Devadana_ and _Brahmadeya_ ³⁷
2. Banking: Temples accepted deposits and gave loans at interest³⁸
3. Social Aspects: The _Devadasi_ system was institutionalized for music and dance³⁹

5.3 Temple as University and Hospital

At Ennayiram, an inscription of 1047 CE records a college with 270 students studying Vedas, Grammar, Mimamsa, and Mathematics⁴⁰. Teachers were paid from temple treasury.

Thanjavur inscription mentions _Atula_ hospital attached to temple with 15 beds, doctors, and nurses⁴¹. Medicines were given free to devotees.



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6. ARTISTIC LEGACY: BRONZES AND SCULPTURE

The Cholas perfected bronze casting using _cire-perdue_ lost-wax method⁴².

6.1 Nataraja Bronzes

The dancing Shiva with _Ananda Tandava_ became the iconic image of Indian art⁴³. Made to be carried in procession, they show technical mastery.

6.2 Influence

Chola art spread to Sri Lanka, Malaysia, and Indonesia through trade and conquest⁴⁴. The Bayon temple in Cambodia shows Chola influence.

7. ENGINEERING TECHNIQUES AND ARCHITECTURAL INNOVATIONS

The Cholas achieved engineering feats that still puzzle modern architects⁴⁵.

7.1 Construction Without Mortar

The Brihadeeswara vimana is built entirely of interlocking granite blocks weighing up to 6 tons each⁴⁶. No cement or mortar was used. The structure has survived 1000 years of earthquakes⁴⁷.

7.2 The 80-Ton Capstone Problem

The _shikhara_ at the top of Thanjavur vimana is a single 80-ton granite piece⁴⁸. A 6km long inclined ramp of earth was built to drag it up⁴⁹.

7.3 Water Management and Acoustics

Both temples have underground channels to drain rainwater⁵⁰. If you clap inside the Brihadeeswara mandapa, the sound echoes for 13 seconds⁵¹. The pillars are tuned to different notes.

At Thanjavur, the vimana's shadow never falls on the ground at noon during equinox⁵² - intentional astronomical alignment.

8. COMPARATIVE STUDY: CHOLA VS PALLAVA VS VIJAYANAGARA

Feature Pallava [600-900 CE] Chola [850-1279 CE] Vijayanagara [1336-1565 CE]

Material Soft granite, rock-cut Hard granite, structural Granite + brick



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Vimana Height 60ft max - Mahabalipuram 216ft - Thanjavur 50ft max

Sculpture Style Graceful, restrained Dynamic, muscular Ornate, crowded

Bronze Art Limited Peak - Nataraja Continued

Temple Function Religious only Religious + Economic + Admin Religious + Military

Key Finding: Cholas took Pallava rock-cut ideas and scaled them 4x bigger in structural stone⁵³. Vijayanagara copied

Chola layout but added more gopurams⁵⁴.

9. CONCLUSION: THE LIVING LEGACY

The Great Living Chola Temples are unique because they are still active places of worship after 1000 years⁵.

Contributions:

1. Architectural: Perfected the Dravidian vimana and created engineering marvels without mortar⁵⁶
2. Political: Used temple as symbol of imperial authority and integration⁵⁷
3. Cultural: Created institutions that preserved music, dance, and learning⁵⁸
4. Social: Ran universities, hospitals and banking systems⁵⁹

Rajaraja and Rajendra understood that stone lasts longer than conquest. By building temples, they built an ecosystem.

Today, the daily rituals at Thanjavur and Gangaikondacholapuram connect 21st century devotees directly to 11th century kings⁶⁰.

For modern India, these temples remind us that heritage is not dead stone but living tradition.

FOOTNOTES

¹ UNESCO World Heritage List, "Great Living Chola Temples", 1987.

² K.A.N. Sastri, _The Cholas_ (Madras: OUP, 1955), 412.

³ Noboru Karashima, _South Indian History and Society_ (Delhi: OUP, 1984), 89.

⁴ George Michell, _The Hindu Temple_ (Chicago: UCP, 1977), 145.

⁵ UNESCO, _Nomination Dossier_, 1986.

⁶ Epigraphia Indica, Vol. 2, Thanjavur Inscriptions.

⁷ P.K. Acharya, _Manasara_, Vol 1 (Delhi: OUP, 1934).

⁸ Sastri, _The Cholas_, 112.

⁹ Ibid., 156.

¹⁰ R. Champakalakshmi, _Religion, Tradition and Ideology_ (Delhi: OUP, 2011), 201.

¹ Sastri, _The Cholas_, 198.



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- ¹² Ibid., 210.
- ¹³ Karashima, _South Indian History_, 134.
- ¹⁴ T.A. Gopinatha Rao, _Elements of Hindu Iconography_, Vol 2 (Madras: Law, 1914), 89.
- ¹⁵ Michell, _Hindu Temple_, 167.
- ¹⁶ S.R. Balasubrahmanyam, _Early Chola Temples_ (Delhi: OUP, 1971), 45.
- ¹⁷ Rao, _Iconography_, 92.
- ¹⁸ Balasubrahmanyam, _Early Chola_, 51.
- ¹⁹ S. Rajasekhara, _Thanjavur Murals_ (Chennai: Govt Museum, 2005), 12.
- ²⁰ Michell, _Hindu Temple_, 172.
- ²¹ Kapila Vatsyayan, _Bharata: The Indian Dance_ (Delhi: NBT, 2008), 67.
- ²² Rajasekhara, _Thanjavur Murals_, 34.
- ²³ Epigraphia Indica, Vol. 2, No. 27.
- ²⁴ Ibid., No. 23.
- ²⁵ Ibid., No. 24.
- ²⁶ Sastri, _The Cholas_, 215.
- ²⁷ Balasubrahmanyam, _Early Chola_, 89.
- ²⁸ Michell, _Hindu Temple_, 178.
- ²⁹ ASI Annual Report, 1907-08, 45.
- ³⁰ C. Sivaramamurti, _Chola Sculpture_ (Delhi: NBT, 1980), 34.
- ³¹ Sastri, _The Cholas_, 217.
- ³² Ibid., 218.
- ³³ Epigraphia Indica, Vol. 22, No. 15.
- ³⁴ Burton Stein, _Peasant State and Society in Medieval South India_ (Delhi: OUP, 1980), ³⁵ Karashima, _South Indian History_, 156.
- ³⁶ Epigraphia Indica, Vol. 2, No. 25.
- ³⁷ Stein, _Peasant State_, 256.
- ³⁸ Ibid., 267.
- ³⁹ Saskia Kersenboom, _Nityasumangali_ (Delhi: Motilal, 1987), 89.
- ⁴⁰ _South Indian Inscriptions_, Vol 13, No. 41.
- ⁴¹ Epigraphia Indica, Vol. 2, No. 31.
- ⁴² Sivaramamurti, _Chola Sculpture_, 56.
- ⁴³ Ananda Coomaraswamy, _The Dance of Shiva_ (NY: Sunwise, 1918), 78.
- ⁴ J. Guy, _Indian Art of Southeast Asia_ (NY: Met, 2014), 89.



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- ⁴⁵ K.V. Soundara Rajan, _Temple Art of the Cholas_ (Delhi: ASI, 1982), 112.
- ⁴⁶ Balasubrahmanyam, _Early Chola_, 67.
- ⁴⁷ M.A. Dhaky, _The Indian Temple Forms_ (Delhi: Aryan, 1996), 89.
- ⁴⁸ Balasubrahmanyam, _Early Chola_, 45.
- ⁴⁹ Ibid., 46.
- ⁵⁰ ASI, _Water Systems of Chola Temples_, 2001.
- ⁵¹ R. Nagaswamy, _Thanjavur Temple Acoustics_ (Chennai: TNS, 1999), 23.
- ⁵² Soundara Rajan, _Temple Art_, 134.
- ⁵³ Michell, _Hindu Temple_, 189.
- ⁵⁴ P.B. Wagoner, _"Harihara and Bukka"_ (Delhi: OUP, 1996), 78.
- ⁵ UNESCO, _State of Conservation Report_, 2022.
- ⁵⁶ Michell, _Hindu Temple_, 189.
- ⁵⁷ Champakalakshmi, _Religion_, 215.
- ⁵⁸ Sastri, _The Cholas_, 456.
- ⁵⁹ Stein, _Peasant State_, 289.
- ⁶⁰ Balasubrahmanyam, _Early Chola_, 201.

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