

Earthen Pyramids of Assam: Seven Hundred Years of Construction Legacy of Charaideo Moidams As A Unesco World Heritage Site

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Abstract:

Charaideo continues a spiritual, historical and cultural landmark of the Tai-Ahom community of Northeast India. Funerary customs have significantly shaped the socio-cultural structure of civilizations across South Asia and Southeast Asia for millennia. The Royal Ahom Moidams at Charaideo, often termed the "Earthen Pyramids of Assam," display distinctive architecture and engineering with remarkable structural and mechanical durability. The evidence of Ahom mortuary traditions through mound-burial is most effectively preserved in Charaideo's royal necropolis. The World Heritage Committee inscribed the Moidams - the tumulus internment system of the Ahom dynasty - onto the World Heritage List on 26 July 2024. These earthen monuments represent the most enduring physical remnants of the Ahom period, embodying a 700-year building heritage from 1228-1826 CE.

Keywords: Charaideo, tourism, Ahom, moidams, heritage, Earthen Pyramids

Introduction:

Charaideo occupies a distinguished place in Assam's past. Che-rai-doi, or modern Charaideo, is a Tai expression meaning "Radiant Hill Town". It became the first stable capital of the Ahom realm founded by Chao-lung Siu-ka-pha in 1253 CE owing to its elevated terrain safe from inundation. It served as the sovereign cemetery where all monarchs, consorts and aristocrats of Ahom lineage were interred.

These moidams, frequently likened to the Earthen Pyramids of Assam because of their imposing dimensions and craftsmanship, hold vast scope for religious, cultural and historical tourism. Nevertheless, deficient coordination among state agencies and private stakeholders, inadequate promotion, and illegal land occupation by certain locals remain major hurdles in developing Charaideo into a prime tourist hub.

Objectives:

The principal aims of this inquiry are:

1. To comprehend the historical background of Charaideo Moidam's
2. To examine transformations and continuities in Charaideo Moidams' evolution as a UNESCO World Heritage Site
3. To analyze obstacles and explore tourism opportunities at Charaideo Moidams

Methodology

Nature of Research: This investigation is primarily descriptive in nature.

Data Category: Primary and Secondary Data Compilation

Primary Data: Primary information was gathered via field investigation. The following techniques were employed: i) Observational technique ii) Interviews with selected individuals iii) Structured questionnaire

Secondary Data: Secondary material was sourced from credible published scholarly works, documents, journals, books, periodicals, newspapers etc.

Discussion:

The Medieval Ahom state, situated in the Brahmaputra basin, persisted for over six centuries. Founder ruler Siu-ka-pha and his adherents introduced Tai cultural elements, including a distinctive mortuary practice unknown in the Brahmaputra valley. The Ahoms customarily buried their dead. Following rigorous ceremonies, corpses were placed in caskets of specific timber and interred beneath hemispherical earthen mounds. Such burial mounds were called Moidam. Moidam is a Tai term, where moi denotes resting place or burial and dam signifies the soul of the deceased. Royal moidams differ from commoner moidams in form and magnitude.

Design and erection of moidams:

Moidam or Phrang Mai-Dam (Phrang: to inter or entomb; Dam: spirit of the departed) in Tai translates to entombing the soul. Moidams are holy spirit dwellings with a mound-shaped inner sanctum, positioned at the cosmos center (Garh). According to Buranjis, Moidams comprise five segments - 1. Garh 2. Ga-Moidam 3. Tak 4. Garva and 5. Chou-Cha-Li or Dole.

The Chang-rung Phukonor Buranji details site selection and construction:

1. Paiks hurled an egg skyward. The spot where it shattered was deemed spirit-free and chosen for interment.
2. The selected plot was sanctified with gold and silver fragments while priests recited 'pha ting ting lai-pha lai bet.
3. Burial chamber or Garvha was excavated there.

While Moidamiya Paiks maintained Moidams and gardens, Maw-Chai Phukans, Bailungs, Mohans and Deodhais (priestly groups) conducted ceremonies, festivals for the spirit and oversaw the Ancestral spirit grove.

Components of a Moidam:

1. Garh

Boundary marked by a low wall, octagonal or circular (up to one meter tall). Octagonal form represents the Tai cosmos. Certain moidams feature one or two courses of pebbles (Lathia stone) ringing the Ga-Moidam base.

2. Ga-Moidam

Earthen mass shaped like a hillock, erected over the Tak with heights ranging 0.3m to 20m, abode of khwan. Some Ga-Moidams had dual brick layers to stabilize the earth.

3. Tak

Void chamber, capped by a vaulted dome. Initial taks were timber using Nahar pillars and Uriam planks. Post 17th century, brick and stone built larger Taks. Tak is the most robust section. It was brick-built usi-

ng:

- Mortar-Karal (Lime-blend) mixed with treacle and Samuk Xun (shell lime) enhanced bonding capacity.
- Coating - Xil xun (limestone), Saka xun (culinary lime), mati mah (black gram) and Xan (Hemp) in equal ratios, barali fish, duck eggs, wood-apple adhesive, bara chaul (sticky rice), brick dust etc. rendered surfaces smooth and moisture-proof.
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A male of the Lukhurakhan clan was confined inside to attend the royal Dam. The Tak entrance was sealed with Lathia stones, bricks and metal clamps, and none glanced back after sealing.

4. Garvha

Subterranean chamber or grave cavity topped by an elevated brick platform. A decorative Rung-dang (timber casket) holding embalmed remains or ash was placed within.

5. Chou-Ch-Li or Dole

Temple-like edifice atop Ga-moidam functioning as "Muangkiang" - the celestial stairway linking sky and earth. Through it, a Phi descends to earth during ancestral worship. The sovereign funeral procedure:

Body preparation for Interment

A king's demise was concealed until a new ruler was crowned, who commanded moidam construction. The corpse was preserved for 3-4 months until the Moidam was completed.

1. Viscera were extracted and body cleansed at Petu dhuwa pukhuri.
2. Mati-mah (lentil) and turmeric paste was smeared, then washed, mummified and kept at Sha thua Nagar.

Post 1769CE, from Rajeswar Singha's death, Tai-Ahoms incinerated and buried ashes rather than embalmed cadavers. This illustrates Tai localization and cultural formation across Southeast Asia.

The final voyage

The corpse was transported in a palanquin in a terrestrial cortege originating at the capital. It was headed by numerous Bailung priests chanting Rik-khwan, accompanied by ministers, officers, Hengdan (sword) carrier, lance bearer and others. In royal funerary parade, the deceased king's body was taken to Sha Dhuwa pukhuri for ritual bath, then to the Moidam. It was deposited in Rung-dang (wooden coffin), victuals, livestock and even spouses and servants were buried with him. The custom of moidam burial absorbed Hindu influence in the 17th century CE, causing modifications. This first appeared during Swargadeo Rajeswar Singha's royal interment in 1769CE, when his body was cremated per Hindu rite and bones and ash were entombed at Charaideo per Tai Ahom practice. Thus a blended burial system arose among some Ahoms, while others retained moidam tradition. Following the Tai-Ahom dynasty's collapse, the cemetery was swallowed by dense jungle, until 20th century rediscovery. In 1970 CE, the Archaeological Survey of India safeguarded four major moidams and by 2015, the Directorate of Archaeology, Assam Government protected neighboring Moidams.

Moidam 78 belongs to the royal Ahom cemetery zone which, as the Mound-Burial System of the Ahom Dynasty, has been on UNESCO's Tentative World Heritage list since 2014. Moidam 78 contains all five core structural elements -- garhva (burial cavity), tak (burial chamber), ga-maidam (earthen mass), Chou Cha Li (dole-like canopy atop Moidam) and garh (octagonal low enclosure wall). Additionally, a dual line of cobblestones, half sunk, defines the mound-burial's outer margin inside the boundary wall. This layout created a narrow strip for ornamental planting. Comparable features exist in other Moidams. Yet, Moidam 78 excavation first revealed that this Moidam vault's interior is lined with refined lime stucco.

Another notable discovery includes six iron hooks embedded vertically in the lower segment of the burial vault's hemispherical dome. These pegs supported a multi-tiered fabric canopy (Chandratap) customarily placed above an altar or throne as an emblem of authority, here monarchy. Evidently, the canopy was positioned above the dead Ahom royal, confirming Moidam 78's link to a potent Ahom sovereign. Moreover, all four chamber walls bear numerous iron pegs, vertical and horizontal, apparently holding timber shelves for specific grave offerings.

Further excavated items comprised human bones - two clavicles, one tibia, one scapula, one rib, one radius-ulna and one fibula plus a human mandible and teeth -- and artifacts like leaf-formed pendants of thin gold foil, broken ghunghroos, ornate ivory toggles, iron nails, and timber fragments clad with copper sheet, among others.

Notably, royal earthen burial mounds were vast, spanning acres and tall enough to resemble small hills in the untouched woodland against Patkai ranges. From the early 18th century, royal interments employed stone, brick and mortar. Despite looting, Charaideo retains numerous moidams visited with reverence.

Conceptually, post-interment, rulers departed the physical realm and dwelt in 'paradise'; the moidam emblemized 'heaven'. The regal tomb or moidam was a concrete expression of Tai ideology that moidam represented heaven where chao-pha resided.

Two categories of Post-Interment Practices existed: one for moidam upkeep, another for rituals for the deceased's dam. For maintenance, paiks or state personnel were assigned. Called Moidamiya Paiks or persons designated for moidams. They served under officials like Phukan, Barua, Hazarika, Saikia and Bora collectively under Khel. They cleared vegetation, repaired structures under officers, with Moidamiya Phukan as head. They tended flower gardens. The royal moidam precinct was strictly sacred; unauthorized entry was forbidden. It was a restricted zone.

Dam Puja was an essential ceremony, mandatory after an Ahom swargadeo's burial per Ahom custom. It was exclusively an Ahom 'Mo' retreat. Another key rite was Me Dam Me Phi commemoration. Ahom Kings customarily performed Me Dam Me Phi. Descendants pray to forebears seeking blessings, offering chosen food and drink. In the Ahom state it was initiated by Sukapha, (Documentary History, Vol I) and continued by successors till kingdom's end. Today, Tai Ahom people perform it yearly on 31 January. Then, Ahoms pray to ancestral Dams and Ahom deities for blessings.

Royal Moidams endured Hard Times when Mughals, termed Bangals by Assamese, under Nawab Mir Jumla (1661-1663 CE) invaded Ahom territory and captured capital Garhgaon during 1662-63. Then Ahom ruler Jayadhwaj Singha (1648-1663 CE) retreated to remote hills. Charaideo was occupied. Learning royal moidams held vast gold, silver and valuables, Mughal troops on Mir Jumla's command opened ten moidams, removing valuables and human remains. Shihabuddin Talish, a Persian chronicler accompanying Mir Jumla (1661-1663 CE), documented this. Fortunately, the atrocity lasted under a year. The Ahom King was anguished at failing to guard ancestors' bones. The second Dark Era was prolonged. Nearly 175 years later when King Purandar Singha (1818-19 CE, 1833-1838 CE) was deposed as tributary

ruler in 1838, British tea growers demolished Charaideo moidams' permanent walls and shrines, using them for tea factories and homes. This led to moidam plundering for gold, silver and valuables. Such acts persisted unchecked till Independence. Post 1947, local awareness, especially royal descendants, halted this.

Brief outline of Charaideo UNESCO World Heritage Site:

1. Entry/Exit
2. Restrooms
3. Visitor centre
4. Worship place
5. Moidam Pathway
6. Forest trail
7. Resting spot
8. Sericulture path
9. Tea Pathway
10. Ticket booth
11. Siukapha site museum
12. Sha Niya Ali (Funerary route)
13. Phuleswori konwari moidam
14. Cluster of seven moidams (locally Bali moidams)
15. Langkuri dole & Deohal

Access and amenities to Charaideo Moidams

Airport: Dibrugarh 85km

Rail terminal: Simoluguri 14km

Lodging: Nazira-19km, Sivasagar-29km

Disputes in Ascription and Recognition of Charaideo Moidams

Contentions over Moidam No. 8 Identification

Moidam No. 8 is the most renowned among the burial structures in the Charaideo necropolis zone. It lies alongside the pathway managed by the State Archaeological Department of Assam. Imagery of this tumulus is extensively shared across social platforms and digital plus conventional media. The architectural patterns of the moidams inherently draw attention of heritage enthusiasts and amplify public fascination with the cemetery. Truly, the placement and building method of the mausoleum renders the surroundings impressive. Nonetheless, it must be noted that the cement walls flanking the road toward the moidam's sanctum, the upper plaza and adjacent ramparts are modern constructions, not ancient. Yet, investigators observed remnants from the fortress' historic period.

Notably, no recognition plaque exists beside the sepulcher. Consequently, the moidam naturally arouses inquisitiveness among visitors. Certain scholars claim this moidam belongs to Swargadeo Lakshmi Singha while others attribute it to Rajeswar Singha. However, concerned officials possess the accurate answer. The scope remains unresolved yet. Though identifying the moidam is intricate, the recognition process continues.

On 8 January 2024, a research group comprising Robin Borgohain, Dr. Luhit Buragohain, Shusen Konwar, Bismita Bora and the researcher himself under Robin Borgohain, former professor, History Department, Demow College, undertook investigation of several moidams conserved by central and state archaeology agencies based on Changrung Phukanor Buranji. Subsequently, the team visited Charaideo repeatedly. The published account of Changrung Phukan referenced several paved royal tombs of the Tungkhungia clan during Ahom rule. Within this Buranji, mention exists of moidams of Rudra Singha, Shiva Singha and Shiva Singha's two princesses who governed respectively. Citing this, the investigator wishes to present views on Moidam No. 08's attribution. Per records, the burial chamber of Rajeswar Singha's tomb measures 10 cubits lengthwise, 8 cubits width, 6 cubits thickness and 13 cubits height. Rajmao Moidam's edge spans 7 cubits length, 6 cubits width, 4 cubits thickness and 1 cubit height. Using such historical data, the sanctuary of Moidam No. 08 was measured on site. Per the team's computations, the sanctuary dimensions showed no correspondence with Rajeswar Singha moidam measurements cited in chronicles. Their findings indicate that marked Moidam No. 8 corresponds to Rajmao moidam (1696 AD) described in Changrung Phukan. Hence, observed Moidam No. 08 in the Moidam area is certainly not Rajeswar Singha's Moidam.

Discrepancies in Female Moidam Records:

The researcher further expressed opinions regarding Rajmao (1696) moidam referenced in annals. History documents three female moidams. One is Barjana Raja Moidam (1653 AD) and the other two are Rajmao Moidam (1659 AD) and Rajmao Moidam (1696 AD). History omits structural details of the chowchali of Rajmao (1696) Moidam. However, courtyard and surrounding fortification layouts of Barjana Raja (1653 AD) and Rajmao (1659 AD) moidams are precisely identical. Courtyards and enclosing walls of both moidams are octagonal. Thus, observation suggests both moidams were constructed similarly.

Constraints Regarding Charaideo Moidam Development

Despite receiving UNESCO World Heritage inscription on 26 July 2024, the sustainable development of Charaideo Moidams faces multiple constraints. The foremost challenge is conservation versus tourism conflict under Archaeological Survey of India guidelines. As a centrally protected monument, the site prohibits new construction within a 100 to 300 metre radius, making infrastructure like hotels, ropeways, or recreation parks extremely difficult to implement. Traditional repair materials such as Karal, brick, and lime must be used, and high-intensity illumination at night is restricted to prevent archaeological damage. This directly clashes with tourism demands for modern amenities and night-viewing facilities.

Secondly, infrastructural and connectivity gaps severely limit tourist access. Charaideo is 85 km from Dibrugarh Airport and connected only by single-lane roads that often become inaccessible during monsoon. The absence of direct international flights to Upper Assam means foreign tourists must undertake 8-10 hours of road travel from Guwahati. On-site facilities remain inadequate with poor garbage disposal, lack of toilets, and scarcity of accommodation in Nazira town.

Thirdly, administrative and policy constraints hinder progress. The state administration has not formulated a holistic policy framework for Charaideo as a UNESCO World Heritage Site, resulting in poor coordination between tourism managers, hospitality owners, Town and Country Planning, PWD, and Civil Aviation departments. Funding remains inconsistent as UNESCO does not provide direct financial assistance, and land grabbing by unscrupulous locals in the Moidam zone further complicates planned development.

For the Ahom community, Moidams are sacred funerary sites rather than tourist attractions, creating sensitivity around commercialization during rituals like Me-Dam-Me-Phi. Linguistic barriers of residents and deficit of skilled English-speaking tour guides hamper international tourism. Research gaps also exist, as observed in discrepancies of female Moidam records where structural details of the 1696 Rajmao Maidam's chowchali remain omitted from annals.

Additionally, the region's heavy rainfall and location in a seismic zone accelerate erosion of the earthen Ga-Moidams, posing a constant conservation threat. Thus, any future development must balance heritage preservation, community sentiment, and ecological limitations.

Opportunities:

Charaideo's mountainous topography in the Patkai foothills provides a natural base for hiking and trekking trails. Developing designated nature walks connecting Moidam clusters would extend tourist stay duration and promote eco-tourism, aligning with Swadesh Darshan 2.0 objectives. The hilly terrain also enables cable car/ropeway connectivity to viewpoints, improving accessibility for elderly and differently-abled visitors while offering panoramic views of the Moidam complex and surrounding tea gardens. Paragliding can be introduced as an adventure tourism product, similar to models in Sikkim, provided operations are located outside the ASI protected 300m zone.

Solar illumination using low-glare, heritage-sensitive lighting can facilitate "night tourism" without violating ASI conservation norms that prohibit high-intensity lights. This would extend site hours beyond the current 5 PM closure. A light and sound program staged in the buffer zone can narrate the 700-year Ahom history from Sukapha to the British period, creating an educational evening attraction and generating ticket revenue, as successfully implemented at Red Fort and Golconda. An observation tower in the vicinity would provide an aerial perspective of the Moidam clusters, reinforcing the "Earthen Pyramids of Assam" narrative for photography and interpretation. Complementing this, a recreation park with interpretation centre, cafeteria, toilets, and shaded seating in the buffer zone would address critical visitor amenity gaps.

An open-air amphitheatre for Tai-Ahom folk performances and Bihu during festivals would enhance cultural immersion while respecting the site's sanctity. Establishing a Social Science and Historical Research Institute or "Ahom Studies Centre" at Charaideo would transform the site from a static monument into a living research hub. It would facilitate scholarly work on burial archaeology, Tai-Ahom manuscripts, and Moidam conservation, attracting national and international researchers. This aligns with UNESCO's emphasis on research and capacity building at World Heritage Sites.

Conclusion:

Charaideo is therefore a genuine spiritual, historical and cultural monument of the Tai Ahoms of Northeast India. The name evokes Assam's bygone legacy. Culturally, moidams are distinctive. The moidams parallel Chinese imperial burial tombs and Egyptian pyramids. Consequently, Charaideo's moidams, now designated a UNESCO World Heritage Site, fully validate the label "Earthen Pyramids of Assam" via their 700-year building heritage. Alongside moidams, these historical, spiritual and cultural elements render Charaideo a heritage destination of Assam, India, thus requiring immediate focus to build infrastructure for convenient site access.

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