

**NATIONAL**  
**REPORT 2018-2022**

**TICCIH India |**  
The International Committee for the  
Conservation of the Industrial Heritage, India



**National Report | 2018-2022**

The International Committee for the Conservation of the Industrial Heritage, India

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Solina Silk Mill, Srinagar (2019) by Moulshri Joshi

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# Editor's Note

This report has been prepared by the members of TICCIH India and National Scientific Committee on Industrial Heritage (NSC-IH), ICOMOS India. It was presented at the General Assembly held in Montreal in 2022 as India's recent foray into the field of Industrial Heritage. Deviating from the standard format of TICCIH National Report, this report presents the state of conservation of Industrial Heritage in India between 2018 and 2022, in an expansive and illustrated manner.

Despite 'Industrial Heritage' not being a recognized discipline in its own right, the report demonstrates the intense activity taking place towards its study, documentation, conservation and interpretation. How individuals, enthusiasts, voluntary networks as well as state and non-state bodies address the vestiges of our industrial past - that is largely undocumented and unprotected - is an important and original testimony in how the culture of heritage production is taking place in India today. Increasingly, the term 'Industrial Heritage' is being used in discourse - policy papers, reports and media - to refer to this hitherto uncertain and often unwanted heritage.

Lack of understanding and articulation of values that industrial heritage holds in our multicultural and post-colonial nation, adds to the ease and pace at which these sites are being erased. In such a context, tasks such as identification, organization, classification and public distribution become a responsibility for heritage professionals and enthusiasts and members of voluntary organisations such as ICOMOS and TICCIH.

Through this report, we hope to add to the momentum that 'Industrial Heritage in India' is now gathering.

*Moulshri Joshi*  
*National Representative*  
*TICCIH India*

# 01 | Introduction

This is the National Report from India to TICCIH summarising the state of industrial heritage during the last four years. India's position within TICCIH as well as in the field of industrial heritage has been steadily growing since previous reports.

*'The state of Industrial Heritage in India'* by the National Representative, Divay Gupta in 2004 was the first formal missive on sites and practices significant in the field and the measures towards their formal recognition. The document highlights sites from Delhi, Agra, Shimla, Surat and other places in India and urges action towards their protection.

The second report was prepared by National Representative, Moulshri Joshi in 2017 in the form of an inventory mapping sites across the country, their brief history and condition to generate a story map. This report documenting the sites across industrial categories as well as museums and industrial artefacts, laid out the expanse of unrecognised heritage and early thematic considerations that can build an understanding of this vast landscape.

During the ICOMOS General Assembly 2017, a session titled 'Industrial heritage in India – Knowledge, Condition and Significance', was organised by *National Scientific Committee on Industrial Heritage (NSC-IH)*, ICOMOS India with generous support from the National Institute of Urban Affairs (NIUA). It was an important event to construct Indian conservation membership towards industrial heritage as a unique field in its own right. A report on this event can be found here: [https://smarnet.niua.org/sites/default/files/report\\_on\\_ih\\_meeting\\_as\\_sent\\_to\\_niua.pdf](https://smarnet.niua.org/sites/default/files/report_on_ih_meeting_as_sent_to_niua.pdf)

Within TICCIIH, connections to India have been strengthened by a general 'look east' policy in the last decade. A sustained reporting from and on India in the TICCIIH bulletin as well as the formulation of Global-Local group under Gyorgi Nemeth of *TICCIIH Hungary* provided a safe space for building in understanding of industrial heritage of a more global, interconnected world. Jan af Geijerstam's call for TICCIIH to act in

India in light of threat to sites of significant global history such as Union Carbide factory in India is an important report to refer to.

More recently, TICCIIH Board has engaged with calls for protection of sites under threat in India with great urgency. The letters of support issued to protect the imminent destruction of Esplanade Mansion, a property which is part of the UNESCO World Heritage site "Victorian Gothic and Art Deco Ensembles of Mumbai" and the world's only surviving prefabricated cast iron housing structure, scaffolded the case for its conservation in the ensuing litigation.

However, the size and the complexity of India's industrial heritage is immense and a lot more needs to be done to aid its documentation, protection, interpretation and rehabilitation. This report aims to provide an overview of what is underway in India and the actors and network that are making it possible, although a lot of work remains to be done in building a critical understanding and sustainable



Image1. Publication in TICCIH Bulletin on Sambhar's Salt Mining Heritage by Somya Johri, June 2019



## INDIA

## HISTORIC LIGHTHOUSES OF INDIA: BEACONS OF RESILIENCE

Priyanka Panjwani, Conservation Architect, Coordinator of National Scientific Committee on Risk Preparedness, ICOMOS India

Lighthouses have been integral to the maritime industry and commerce of countries around the world. Since ancient times, communities on the vast Indian shores have proliferated due to international connections and foreign trade. The first steam ships on the west coast of India began to operate from the 1830s and there was a need for a guiding system on the rocky harbours to avoid wrecks and losses. At first, the territorial markers were in the form of tall trees and landmark structures (forts, temples etc.), but since the 18th century, lighthouses were built as high tapering tower structures with lantern rooms at the top to house the lighting technology, such as reflectors and optics, that reached larger distances. The

lighthouses in India encompass historic tangible assets and intangible associated memories.

Lighthouses continue to be the basic source of assistance to mariners, even as new technologies (such as satellite-based GPS systems, wind generators, solar lights, etc.) are being incorporated into them today. India's coastline is dotted with rich industrial heritage including 189 lighthouses across nine Lighthouse districts, Gandhinagar, Jammarg, Mumbai, Goa, Cochin, Chennai, Visakhapatnam, Kolkata and Port Blair. The 'General' lighthouses (in high seas) are controlled by the Central government and 'Local' lighthouses (in



(L-R) The new Daman lighthouse is located near the historic lighthouse (1888) on the Mori Daman Portuguese fort the 26m high Mahabodipuram lighthouse constructed in 1902 using local granite is situated on a mound of stone close to the Chakrawarties temple Bhavnagar Old Fort Lighthouse severely damaged by earthquake in 2001, Mandi lighthouse was rendered unsafe due to an earthquake in 2001 and had to be pulled down. Courtesy: 'Indian Lighthouses', @gajwani (2000)

port channels) are under the care of the state government or port management authorities. According to the Directorate General of Lighthouses and Lightships (DGLL), the oldest functional lighthouse in India was built in 1838, the False Point lighthouse located in Orissa on the east coast of India. The tallest lighthouse in India is the Jakhau (name derived from 'Jakhau' or creasures in Indian mythology) Lighthouse in Gujarat on the west coast of India and it is 45 m in height.

Lighthouse towers are generally circular or polygonal in plan and are made from stone masonry, cast iron or reinforced concrete. They are sometimes painted in bands of red-white or black-white colours for ease of identification. The lighthouses are built with a high foundation and plinth that leads to a room at the base that has a narrow stairway and walls are punctured with small porthole windows. At the top, there is a balcony around the lantern room which gives views on both landward and seaward side. The main purpose of the lighthouses was to demarcate dangerous coastlines, hazardous shoals, reefs and safe entries to harbours.

In March 2021, India endorsed itself as an emerging 'blue economy' in the annual Maritime Summit. One of the three focus areas of the summit was 'upgrading current infrastructure' including drawing up a program for developing tourism in the land adjacent to lighthouses in India. Seventy-eight lighthouses have been selected in Phase one, for boosting tourism as part of port-led development. The DGLL advises the central ministry on lighthouse engineering including maintenance, repairs, alteration of existing stations and their approaches for new works, experiments, tenders and contracts. The new infrastructure proposed near lighthouses include hotels, resorts, viewing galleries, marine museums and adventure sports facilities, thematic restaurants, laser shows, amphitheatres and allied tourism facilities.

## Risk and Resilience

Lighthouse buildings are exposed and unprotected. Rusting affects their strength and acute measures may be required to conserve and prolong the lifespan of the building. Lighthouses are also at risk due to lightning strikes and fires, as they are located in remote areas where earthing could be inadequate. Owing to their location, lighthouses can encounter cyclones, tsunamis and earthquakes. In 1998, the historic Mawadi lighthouse in Gujarat suffered a devastating cyclone, and its upper part was sheared off. After the Bhuj earthquake in 2001, the Mandi lighthouse had to be pulled down as it had become unsafe, while the damaged Kachigadh lighthouse could be restored. These incidents give an understanding of the local hazard patterns in the region, and a need to design appropriate safeguarding, maintenance and monitoring techniques for better resilience.

In addition to managing the risks scientifically, initiatives for sustainable development can serve as a beacon for the resilience. Repurposing of unused historic lighthouse structures can help in decarbonisation, which is key for a just transition and for creating sustainable places (UNSDG 11).

Co-creating sustainable tourism options with the local population is vital, as it can not only improve surroundings, provide job opportunities, but also help to enhance the local maritime heritage through exchange of stories and knowledge (UN SDG 1.8, 17). The lighthouse sites have the potential to become a focal point for local awareness, emergency drills and training activities for the citizens residing in adjacent areas. They can be revitalised spaces which are envisioned for environment interpretation, education about life on land and water, evolution of maritime technology, meteorology etc. and continue to serve as warning signals for effects due to climate change (UN SDG 4, 13, 14, 15).

Image2. Publication in TICCIH Bulletin on the historic lighthouses in India by Priyanka Panjwani, October 2021



## UK experts bat for Mumbai's Esplanade

Updated on: 26 June, 2019 08:06 AM IST | Mumbai  
Anita Sarkar |

Industrial heritage conservation body writes to heritage panel, urging them to intervene and prevent the demolition of Esplanade Mansion



The Esplanade Mansion was constructed entirely from pre-fabricated cast-iron in 1865

The fight to save the 150-year-old Esplanade Mansion has gone global with the support from UK-based The International Committee on the Conservation of the Industrial Heritage (TICCIH). Two weeks after the Mumbai Heritage Conservation Committee (MHCC) said the iconic structure needs to be preserved, the president of TICCIH wrote to MHCC urging them. TICCIH supports UNESCO's advisors, the International Council on Monuments and Sites (ICOMOS) and its work for the World Heritage Committee, especially with regard to World Heritage nominations and evaluations of sites with industrial components. ICOMOS had written to MHADA, the BMC, the Urban Development Department and the Chief Minister on June 10 offering to give technical guidance for the conservation of the building.

After their last meeting on June 12, members of MHCC unanimously agreed that the Esplanade Mansion should be preserved and simply recommended that a thorough analysis of the possibility of preserving the original structure should be taken up. The committee also suggested that the review should be made by a committee of conservation experts.

Image4. Mid-day news report on TICCIH's intervention to save the Esplanade Mansion in Mumbai from demolition



Image3. Jan af Geijerstam on threats to India's industrial heritage in TICCIH Bulletin, June 2009

Image5. Moulshri Joshi on protecting the Union Carbide plant in TICCIH Bulletin, 2008

management. Risk from rampant, short-sighted development, often attributed to climate change, remains the foremost threat to these exceptions as well. Frequent landslides at Darjeeling hill railways, neglect and vandalism at Esplanade Mansion are examples of the same.

The **first section** of the report covers *Sites at Risk* and documents sites recognised as heritage through legal status and as sites of public memory that are not legally protected but are recognised as heritage by community groups, academics and caretakers.

Given that industrial heritage is largely unprotected in India, similar to 20th century heritage, the threat from the lack of recognition and ensuing protection is immense. This means the sites remain undocumented and excluded from municipal, state or national lists despite community groups caring for them. However, two exceptions are notable, namely the UNESCO World Heritage sites and the Railway Heritage. Efforts of Indian Railways and enthusiast groups such as *Rail Enthusiasts’ Society*, *Indian Steam Railway Society* etc. to enlist and protect rail artefacts, archives, buildings and intangible heritage are strong. In addition, the protection and management of World Heritage sites such as *Mountain Railways* and *Esplanade Mansion* are publicly accessible and accountable. Together, these two categories capture the frontiers of industrial heritage protection, although a lot of work remains to be done in building a critical understanding and sustainable management. Risk from rampant, short sighted development often attributed to climate

change remains the foremost threat to these exceptions as well. Frequent landslides at *Darjeeling hill railways*, neglect and vandalism at *Esplanade Mansion* are examples of the same.

Sites that have no state recognition, and little or no documentation are being lost at an unprecedented rate. The real estate that industrial sites occupy and their visible decay present an easy case for demolition.

Recent demolition of *Patna Collectorate*, a former Dutch Opium godown, despite a long and active litigation as well as public outreach by citizen groups, is a case in point. Here, ironically, highlighting the colonial (built by the Dutch) and undesirable past (as a site for opium storage) of the site escalated the case for its destruction and the buildings were brought down overnight.



Image7. Patna Collectorate building (Demolished at present)

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## Key Darjeeling link closed after landslides

TNN | Jun 26, 2021, 09:23 AM IST



DARJEELING: Incessant rain throughout the night damaged a major portion of National Highway-55 in Kurseong sub-division — Gairi Gaon, Tindharia— on Thursday. There was a 35m landslide in the upper hill and a 40m landslide downhill, cutting off the arterial road link.

On Thursday, Kurseong recorded 63.2mm of rainfall. The NH-55 assistant engineer Dinesh Bardewa said, “The landslide was caused due to high intensity rainfall on Thursday night. Two stretches of NH-55 have been badly damaged in Tindharia.” All heavy and mainline traffic has been diverted to the Rohini and Mirik routes from Siliguri to other parts of the Hills.

Image6. The Times of India news report on the landslide in Darjeeling dated June 26, 2021



**Part II** of the report ‘Actors and Networks’ documents the agencies that are engaged in the dissemination of industrial heritage in India. Individuals, loosely-defined community groups, strategic alliances built for a cause, outreach groups that often exist only virtually and volunteer groups are important agents that actively ‘create heritage’. These actors and networks are often overlooked, in the presence of large state-funded and initiatives supported by corporate funding. Both, together, are important to understand how heritage is produced, managed and communicated in India.

Take for example the case of *Calcutta Tram Users Association*, a pressure group to protect the systematic destruction of tram lines in Kolkata. Any passionate tram commuter, a heritage enthusiast or curious citizen is welcome to join the group that is helmed by Dr. Debasish Bhattacharya and a core group of rail lovers. Together, this group mobilises walks, protects heritage, organises online campaigns as well as art exhibitions and talks that take the case of historic tram in Kolkata as a beloved and sustainable mode of transport to a larger audience. Individuals such as *Rajendra Aklekar*, a journalist by training and avid rail lover for the public, reports on railway stories from Mumbai and Maharashtra. His collective portfolio – books, articles and social media campaigns – make a formidable inventory of railway heritage. Decades of writing by Aklekar has raised the importance of railway assets in the public domain and holds the capacity to trigger state action by the outreach of his written word. Such individuals and community groups are sites of industrial heritage themselves, holding local knowledge and stewardship that is difficult even for large institutions to sustain.

The idea behind this section is to raise question of how individuals leverage their agency to build community around the cause of heritage and how community groups, despite the scarcity of resources, and relying solely on voluntary individual contribution, build a space for a collaborative and systematic mode of production of heritage. *Rail Enthusiasts’ Society (RES)* is also a good example of this kind of organisation.

**Part III** documents the recent conservation

projects. Majority of the projects demonstrate reuse of industrial sites and not many refer back to the industrial memory of the site or a careful interpretation of its history. The industrial past is utilised as an aesthetic backdrop for new, mostly creative and elite uses such as design school, café, exhibition gallery etc. The reuse of *Commonwealth Tile Factory in Mangalore* into office space retains the sense of place of the historic factory. Responding to defunct industrial landscapes is a new challenge



Image8. Tramjatra, a friendship society started in 1996, is the story of a Melbourne conductor, Roberto, who worked towards the protection of Kolkata’s trams

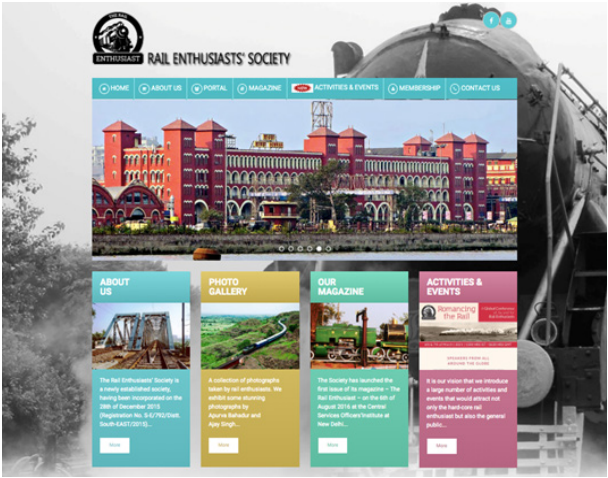


Image9. Rail Enthusiasts’ Society provides a platform for rail enthusiasts to disseminate knowledge, express their views and exchange ideas regarding the railways

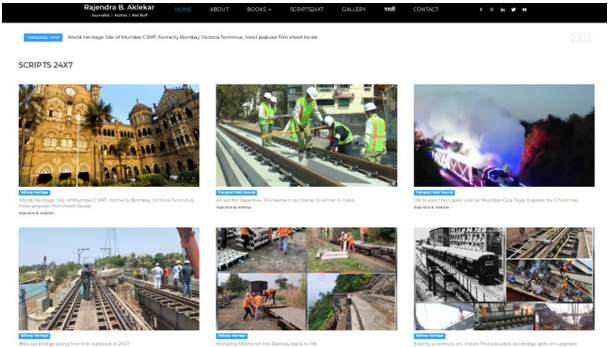


Image10. Webpage of Rajendra B. Aklekar- journalist, railway historian and archivist with over 25 years of experience

for Indian cities and reuse of such sites represents the scale of the problem and prevailing philosophy to address them. In Badarpur, the industrial past is systematically erased to make space for public consumption (yoga, amusement park, leisure) with no reference to it being a place of work, a site of pollution. This blank slate approach can be found across Indian cities where industrial estates are being put to new uses.

Private museums such as *Heritage Transport Museum* and *Museo Camera*, both in Gurgaon and helmed by private collectors, are front runners in delivering well-curated industrial museums that speak to children and adults alike. On the other hand, projects such as renovation of functioning *Tallah water tank in Kolkata* and the successful run of the *Beyer Garrett steam locomotive* demonstrate how unique challenges to industrial conservation are being tackled by the engineering community without being considered ‘conservation’ in the technical sense of the word. This spectrum of the conservation projects showcase the varying association and response to


industrial heritage in India today.

As the *pandemic edition* of the national report, this report would be inauthentic if it did not acknowledge the brutality of the pandemic on the Indian industrial sector. Industries both functioning and out of use, workers both precarious and formal, faced historic dispossession from the workforce. Work place safety norms and environmental protection laws have been relaxed to enable ease of business. As I write this, sites rich in natural resources including ancient forests and wildlife under threat of extinction across the country are emerging as sites of struggle against land occupation and pollution caused by industrialisation. The communities up in arms are people who are caretakers of indigenous knowledge systems. This report has not been able to bring those stories into the mainstream documentation of industrial heritage but that remains our next most important task.

Moulshri Joshi | Somya Johri

# Diamond Mining Project in Buxwaha Forest Stayed, MP High Court Says Stone-Age Rock Paintings Can't be Destroyed

By: [Vivek Trivedi](#) [News18.com](#) Last Updated: OCTOBER 26, 2021, 21:26 IST Jabalpur



The HC bench made it clear that any mining activity in the forest can only take place after its verdict.

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An ASI report had affirmed the presence of stone-age rock paintings and other historic structures in Buxwaha forest. (News18)

In a significant verdict, Madhya Pradesh High Court’s principal bench in Jabalpur on Tuesday stayed the diamond mining project proposed in the Buxwaha forest located in Chhatarpur district. During the hearing, the double bench of HC Chief Justice Justices RV Malimath and Vijay Shukla observed that stone-age rock paintings, statues of Kalchuri and Chandel era and other such historic structures can’t be destroyed.

Image11. News18 report on the diamond mining project in Buxwaha Forest, dated October 26, 2021



# 02 | Sites at Risk

As much as it is important to identify and acknowledge historic sites as significant Industrial Heritage sites, it is important to generate awareness and safeguard them from any probable risks. It is imperative that actions are taken to support the heritage sites and conserve them. In the recent past, significant steps have been undertaken in this direction. Even then, many sites have faced a devastating impact, may be due to developmental pressure, natural threats or lack of maintenance. This section discusses the sites that are already lost in the tussle and few of them that are at risk. There is an urgent need to take drastic steps to acknowledge this industrial past and safeguard it. There are existing legal frameworks in place that need to be brought to the attention of the caretakers so that proper procedure may be undertaken to save the heritage sites at risk.

## 2.1 Recent losses

### Demolition of Amrutanjan Bridge between Mumbai and Pune

*Amrutanjan Bridge* was built in 1830 for the movement of goods trains and hence was built with huge piers. This earthwork and basalt stone structure was 110 metres long and 16 metres wide, supported on five piers, approximately three metres wide. These thick piers were supposedly leading to traffic jams as the road below has been in use as the main connecting passage between the two cities. The historic bridge was demolished by the Maharashtra State Road Development Corporation on April 5, 2020 as it was deemed unsafe and said to have resulted in many accidents in the area. The preposition of an alternative route for traffic movement or shifting focus on safer modes of commute is said to have not been considered and demolition of a historic property was justified by the authorities, without understanding its historic value.



Image12. The historic Amrutanjan Bridge built during the British period



Image13. Demolition of the historic Amrutanjan bridge

### Demolition of Patna Collectorate, Bihar

This 18th century building was once used as a Dutch warehouse for saltpetre and opium, and later by the British for administrative purposes. Spreading over an approximate area of 12 acres, the structure is a testimony of the city of Patna as a trading centre for the Europeans and a major river port. The building was also used as an observation station during the *Great Trigonometrical Survey*, a landmark project of the 19th century that aimed to measure the entire Indian subcontinent with precision. In 2016, it was decided by the state government to demolish the historic building in order to make space for a new Collectorate complex. A lot of efforts were made by *INTACH*, *Gandhi Foundation* and the Dutch Government to save the building and the campaign ‘*Save Historic Patna Collectorate*’ was launched in 2016 by the citizens, including not only locals but from people all over the world. Instead of safeguarding and preserving the building, it was declared unsafe

and its heritage value was not acknowledged by the court and the government. Following a long legal battle to protect the building from demolition, in May 2022, Supreme Court of India gave permission to demolish the historic building and start the work for the new one. As per the officials, the new structure is inspired by the old building but the loss of the heritage structure cannot be equated to the modern architecture by being ‘inspired’.



Image14. Archival image of Patna Collectorate

# SC approves demolition of 350-yr-old Dutch building

Every Old Building Doesn't Have Heritage Value: Court

Dhananjay.Mahapatra  
@timesgroup.com

**New Delhi:** “Not all ancient buildings have heritage value,” said the Supreme Court on Monday and green lighted demolition of the over 350-year-old Patna Collectorate building, constructed on the banks of river Ganga by Dutch colonists prior to Battle of Plassey to serve as a thriving trading hub-cum-go-down for saltpeter and opium.

With ascendancy of British in India after the 1757 Battle of Plassey and the gradual decline of Dutch, the English had converted the Dutch warehouse at Patna as collectorate and since then it had quietly served as the fountainhead of Patna administration, till the Nitish Kumar government decided to demolish the centuries-old dilapidated building to create space for erecting a new collectorate building.

The decision to demolish the building had made Dutch embassy in Delhi write to the Bihar government offering help, in collaboration with NIT-Patna, to make the building reusable with repair and restoration work. Meanwhile, Indian National Trust for Art and Cultural Heritage (INTACH) moved the Patna HC challenging the demolition and pleaded for preservation of the ‘heritage’ building.



Pramod Sharma

The British had converted the 350-year-old Dutch warehouse for saltpeter and opium as Patna collectorate. The Nitish Kumar govt now wants to demolish the dilapidated structure to create space for erecting a new collectorate building

INTACH moved the Supreme Court as the Patna high court refused relief. Appearing for Bihar government, senior advocate Maninder Singh told a bench of Justices DY Chandrachud and Surya Kant that the Archaeological Survey of India has inspected the building and had said it was of no heritage value and that it was unsafe to keep it standing.

Singh said that at many places the roof has fallen and argued that every building of yester years could not be categorised

as ‘heritage’ building for the purpose of preservation.

The bench agreed with the Bihar government and told INTACH counsel Roshan Santhalia that “the building had no connection with freedom struggle and doesn’t have any architectural significance. Can all colonial period buildings be categorised as heritage buildings without these having any significance for the country?” The bench dismissed the appeal paving way for demolition of the building.

Image15. Times of India news report on the Supreme Court's take on the demolition of the Patna Collectorate





Image16. Demolition of the Patna Collectorate

Replacement of Diesel locomotives in India

Indian Railways had earlier proposed to replace all *diesel locomotives* in order to become carbon neutral. The decision has been revoked for now, but the route electrification drive will continue, leaving a high probability of the historic diesel locomotives to be out of use soon. As of now, Indian Railways has decided not to replace diesel locomotives over 2000 horsepower with the electric ones.



Image17. Diesel locomotives that are currently in use in India

Shutting down of Narrow Gauge lines between Gwalior to Sheopur

Setup by Maharaja Madhavrao Scindia of the Gwalior State during the British period in India, the *Gwalior Light Railways* or *Maharaja Railways* was a narrow gauge railway network (two feet wide) between Gwalior and Sheopur Kalan. The work began in 1895 from Gwalior and was completed till Sheopur in 1909. The line was operational under the Central Railways till 1951 and in 2020, it was decided to

be shut down. Efforts are being made by the Union Civil Aviation Minister, Jyodiraditya Scindia to stop the auction of the railway coaches and engines. A proposal has already been submitted to convert the narrow gauge train into a heritage train.



Image18. Archival map of Gwalior State from 1914 with the Gwalior Light Railways highlighted in red

Demolition of the Headquarters of Binny & Co., Chennai

Binny & Co. is one of the oldest business firm s engaged in shipping, textile, banking and insurance in Chennai. Its headquarters was built in the early 19th century and was a significant industrial landmark as the first major industrial establishment in south India and the second major business house of Madras. It was here that the Madras Chamber of Commerce and Industry was started in 1836 and the Madras Labour Union for Textile Workers started in 1918. A major section of this 200 year old structure on Armenian Street, Chennai was demolished in 2017. Though the building is a Grade II heritage structure of the draft list of *Chennai Metropolitan Development*

Authority, the Department of Housing and Urban Development has given a No-Objection Certificate for its demolition.



Image19. Archival image of the headquarters of Binny & Co.

Demolition of Railway Heritage

Railways are an engineering marvel, largest in the world when they were laid in the mid 19th century. Railway Heritage Asset (HA), as defined by Indian Railway Stations Development Corporation Limited (IRSDC), include “historic and preserved railways, tourist railways, tramways and railway museums, historic fixed and rolling stock, fixed and moving structures and equipment currently in use, or otherwise, archival material, drawings, photographs, publicity material, estimates, journals, designs and prototype models, industries, housing, commercial and administrative establishments and all other types of uses that have enabled the Railway system to perform and achieve its intended goal, also including associated features that directly and indirectly aid in the present functioning of the Railway system and may have been owned by an entity other than the Railway Companies”.

Many of the heritage structures have been in news for demolition due to the refusal of authorities for considering them as heritage. Earlier this year, the earliest power sub-station building at Kurla, Mumbai was pulled down. It was one of the last remaining vestiges of India’s first electric railways. Recently, a 107 year old tower of Matunga Carriage and Wagon workshop was demolished by the Central Railways. Built in 1915, this stone building worked as a repair house for broad and narrow gauge coaches and wagons. This place was also utilised during the first

and second world war for manufacturing shells, converting coaches for military movement and supply of food grains, and other ancillary supplies.

The *Railway Saloon in Baroda* has also been recently demolished. It was once used as the shed for royal saloons or luxurious coaches of the Gaekwads. Efforts had been put in since 2000 to safeguard the building by organisations like *Baroda Heritage Trust*, who in 2002 cleaned it and proposed to house the city museum in the heritage structure. An exhibition and conference was organised within the structure and brought a ray of hope for the building to be saved. By 2009, the ownership issue of the land and structure could not be resolved and the museum proposal was stalled. In 2021, the efforts of two decades to safeguard the building could not save the heritage structure and it was demolished in 2021 by the National High Speed Rail Corporation Limited (NHSRCL).



Image20. The Railway Saloon Shed in Baroda built in 1886



Image21. The earliest power sub-station at Kurla (Demolished at present)



## 2.2 Sites under threat

### Mountain Railways of India: A UNESCO World Heritage Site

UNESCO has four railway sites of Indian Railways on their World Heritage list, namely *Darjeeling Himalayan Railways* (1999), *Nilgiri Mountain Railways* (2005), *Kalka Shimla Railways* (2008) and *Chhatrapati Shivaji Terminus, Mumbai* (2004).

*Darjeeling Himalayan Railway (DHR)* is one of the few historic steam locomotives in India that are still operational. In 2018, it started the Toy train service hauled by steam engine, with an aim of increasing tourist footfall. In 2019, UNESCO had warned DHR on its state of conservation and maintenance. In 2021, India registered the logo of the iconic Toy Train internationally as its intellectual property. Joyride train services have been planned by the Northeast Frontier Railways between April to June on this route.

*Nilgiri Mountain Railways* in Tamil Nadu, started in 1854, took approximately 50 years to build because

of the daunting terrain. It was one of the most challenging engineering projects by the British. Dotted with bridges, viaducts and tunnels that still stand intact today, the line crosses hills and forests. Few years back, the vintage coal fired steam locomotives plying on this route have been replaced by new oil fired steam engines, and the retired engines have been exhibited at the *Coimbatore Ooty Railway station* and the *Nilgiri Mountain Rail Museum*.

The *Kalka Shimla Rail Track* was built in the late 19th century. This 96-meter long, single track line is an important engineering achievement and marks the cultural and economic developments at that time. The line has a total of 919 bends, 107 tunnels and 850 multi-arched bridges, made of stone and brick. Various sections of the track are under threat due to frequent landslides and sinking of mountains due to soil erosion and loss of vegetation. Though appropriate mitigation steps are being taken by authorities like the National Highway Authority of India (NHAI), it is important to take preventive measures to safeguard the track. Various initiatives have been taken in the past to preserve the areas around the heritage track, like in 2018, Himachal



Image22. Archival image of The Darjeeling Himalayan Railway Track in the 1890s



Image23. View of a section of the Nilgiri Mountain Railways

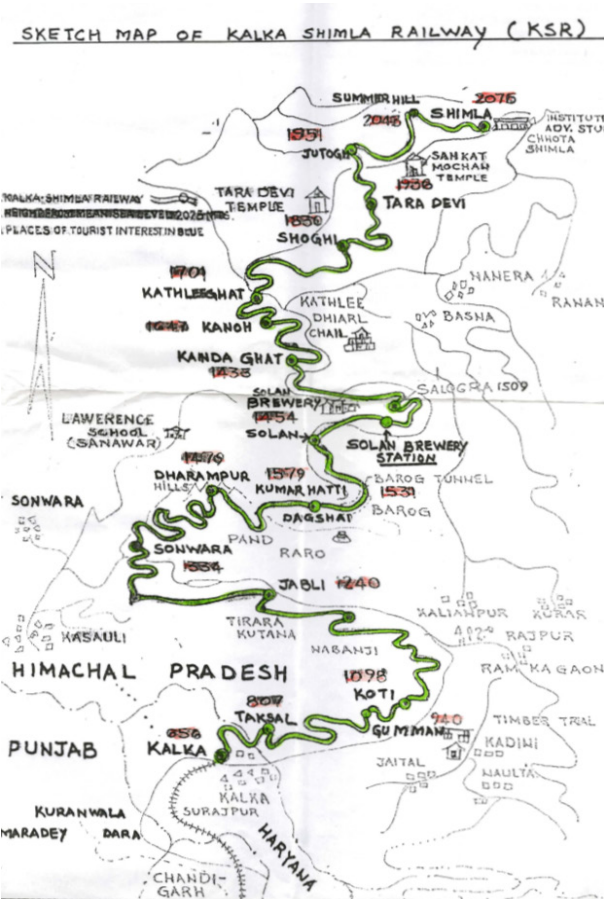


Image24. Map of Kalka Shimla Railway (KSR)





Image25. View of the Kanoor bridge on Kalka Shimla Railtrack

Pradesh State Legal Services Authority, along with the locals stakeholders, organised an awareness drive to protect, conserve and clean the *Kalka-Shimla Railway track*. More than 1700 people from various educational institutes, local government departments and NGOs took part in the efforts to safeguard the heritage track. Currently, in order to monetise public sector assets, it has been proposed to provide the *Kalka-Shimla railway track* to a private concessionaire for a period of 30-50 years, who will be responsible for its operation, maintenance and development as well as preserving the heritage status of the tracks.

**Chhatrapati Shivaji Terminus (formerly Victoria Terminus)**

*Chhatrapati Shivaji Terminus, Mumbai*, showcasing the Victorian Gothic Revival architecture, was built over a time span of 10 years, starting in 1878. It is a symbol of the city as a major mercantile port city. *Chhatrapati Shivaji Terminus station* was the first railway terminus building in the Indian subcontinent. The property has been declared as a “Heritage Grade-I” structure under the resolution of Maharashtra State Government Act in 1997. Since the building is in use and is visited by so many commuters all year round, it is critical that appropriate steps are taken to safeguard it. Continual efforts are being made to improve the overall state of the building and areas around it by a multidisciplinary committee, called Mumbai Heritage Conservation Committee (MHCC)

in order to ensure its protection. The Mumbai Metropolitan Regional Development Authority (MMRDA) is making efforts to upgrade the transport network. There are various organisations working towards the restoration of the complex, including conservation works and management of the traffic, tourism and other aspects related to the site.



Image26. Chhatrapati Shivaji Terminus station

**Esplanade Mansion or Watson’s Hotel, Mumbai**

It is India’s oldest surviving cast iron structure and was designed and prefabricated in England, shipped to Bombay and erected by local Indian architects between 1860 and 1863. This five storey high Grade II heritage building, which was once a leading luxury hotel in India, was included on the World Monument Watch in 2006. In 2019, the structure was marked for demolition, after it was declared unsafe and beyond repair by Maharashtra Housing and Area



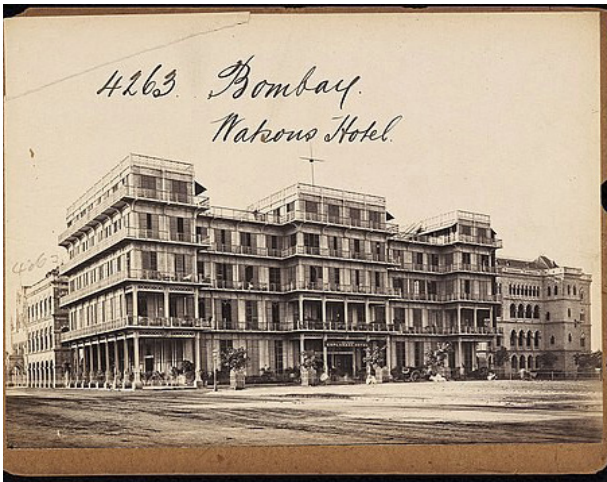


Image27. Archival image of Watson’s Hotel in the 19th century



Image28. Esplanade Mansion or Watson’s Hotel

Development Authority (MHADA). In 2010, MHCC approved the repair work in the building but was later put to halt. Efforts have been made in the past by organisations like INTACH and ICOMOS India to safeguard the property and also provide technical guidance for its conservation. In 2020, BMC said that the heritage committee will prepare a proposal for the restoration and conservation of the building.

Trams of Kolkata

The iconic trams were introduced in India in the 19th century and in Kolkata for the first time in 1873. It is the oldest operating electric tramway in Asia. In 1990, tram services were closed and by 2018, all the major routes were shut. Till 2020, six of these routes were operational on the tram network under the West Bengal Transport Corporation (WBTC), but were temporarily suspended during the pandemic. In April 2022, it was announced to revive two of the tram routes in Kolkata.

Efforts have been made to generate awareness of the historicity of this mode of transport, and safeguard it. In 2014, the *Smaranika Tram Museum* was setup at the Esplanade Tram Depot showcasing the vast history of the trams in Kolkata. Kolkata Heritage Tram tours are conducted by *Calcutta Tramway Company (CTC)* taking the visitors to major landmarks in the city. WBTC introduced heritage installation inside trams and launched a cafe cum museum in one of the wooden trams.

The trams of Kolkata has lately received international recognition from the United Nation (Climate Change 2022: Mitigation of Climate Change), as an “illustrative case study” to showcase how integrated actions can combat climate change. It appreciates how the public transport mode has “contributed positively in bringing down the trend of greenhouse gas emission per unit of GDP to half in one decade, with the potential for further reduction”.



Image29. Archival Image of horse drawn trams of Kolkata in 1873



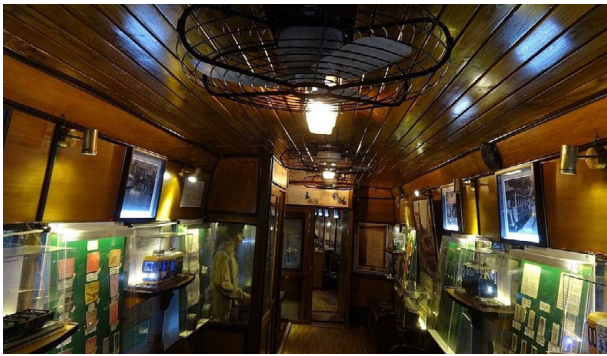


Image30. Interior view of the Smaranika Tram Museum



Image31. Archival image showing tram route in Kolkata



Image32. A tram car in New Town, Rajarhat currently being used as a restaurant

### Traditional Shoemaking Industry of Agra

The traditional shoemaking industry has been associated with Agra since the Mughal period in the 16th century. Once started with a purpose of reusing the leather used for transporting asafoetida, the footwear industry rose to prominence. The government is taking initiatives to safeguard and

promote this traditional industry, but it's getting difficult to match up with synthetic leather. There has been a decline in the industry during the pandemic due to weaker consumer demand. Serious efforts are required to increase the demand and henceforth save this traditional shoe industry from decline. Initiatives like *Shoegaro*, an Agra based social business are making meaningful change by creating income generating opportunities for the craftsperson families.



Image33. A traditional shoe maker in Agra

### Railway saloon in Rampur, Uttar Pradesh



Image34. Interior view of the Railway saloon, Rampur showing its dilapidated condition and current use as a temporary accommodation

The historic structure of the railway saloon in Rampur demonstrates the case of losing heritage due to the inappropriate usage of the structure. Heavy vehicles are parked in close proximity to the historic structure, posing a threat to the strength of the structure and abrasion of the material. The structure is used as a parking facility and is in a state of deterioration. Due to disputes over ownership, there is no maintenance of the structure, posing a threat to its loss, sooner or later.



### 2.3 Unprotected Industrial Heritage sites at Risk

#### Heritage of Salt Industry at Sambhar, Rajasthan

Salt lakes are a unique phenomenon in the semi-arid region of Rajasthan. Production of salt has been a traditional activity at the *Sambhar Lake*, a Ramsar site significant for its biodiversity. Natural drying up of the pans leaves behind salt in the pans that has been collected, treated and is used for consumption. It has been an important commodity for trade and has been the livelihood generator of the settlements around the lake.

The traditional industrial salt heritage of Sambhar is still in use and sold in the name of Hindustan Salts Ltd., a Government of India enterprise and its subsidiary, Sambhar Salts Ltd.



Image35. Salt collected in trolley at the Sambhar salt pans, Rajasthan



Image36. Bridge used for delivering salt from the pans to the factory

#### Zawar Mines, Udaipur, Rajasthan

One of the oldest lead zinc mines in India, *Zawar Mines* are a testimony of mining and metallurgical activities in the Indian subcontinent during the historic period. This industrial site is still in use and has major archeological remains spread over a vast area, including the ancient mines, metallurgical slag heaps and remains of furnaces and retorts. The ancient mining methods and tools have been well studied and cataloged over time by researchers and are a rich repository of the industrial heritage of the area. The *Royal Society of London and American Society of Metals* has recognised Zawar as a historical landmark and that the technology to produce zinc metal from its ore was developed in India at Zawar for the first time in the world.



Image37. Furnace with retort and base plate



Image38. Stratification in rock with burnt retorts

## 2.4 Existing Legal Framework

### Form-based codes for Station Redevelopment for Indian Railways

The *Indian Railway Stations Development Corporation (IRSDC)* has prepared a set of codes, guidelines and norms for station redevelopment and commercial development on railway land on the principles of Transit-Oriented Development (TOD). These form based codes have been adopted and will help regulate commercial development on railway land including the historic railway stations. The codes have been compiled in 6 parts, one of them being codes for railway heritage assets.

<http://irsd.in/sites/default/files/6aHeritageCodesCover12042021.pdf>

### Policies and codes under Indian Railways

The *Heritage Directorate, Railway Board, Ministry of Railways* has a series of policies and codes for the conservation of heritage buildings under the Indian Railways. Indian Railways has adopted a methodology for grading a heritage structure, detailed assessment of the conservation work to be undertaken as well as the execution of the work. In 2016, a handbook on conservation of heritage buildings was published by the *Central Public Works Department, Ministry of Urban Development, Government of India* to create awareness about the conservation of national heritage for the railway engineers engaged in conservation of railway heritage.

The *Railway Board* also emphasises on preservation of archival material on zonal railways including books, reports, journals, photographs, layout plans, films etc. It also focusses on restoring, preserving, organising and cataloguing the historical material for a systematic access. *Railway Board* has a preservation policy for preservation of steam locomotives, rolling stocks, buildings, bridges and historical/archival materials such as books, reports, photographs, drawings etc. In 2017, *Railway Board* also set in place the preservation policy for vintage scrapped railway items.

In 2018, the Indian Railways Heritage Charter was prepared to provide guidelines for conservation, preservation, restoration, repair and maintenance of heritage assets of Indian railways. In addition to the above, there are policies regarding preservation of steam locos, sale of old coaches and vintage rolling stock and other heritage assets.

### Recognition of Industrial Heritage by the Government of India

NITI Aayog prepared a report on 'Improving Heritage Management in India' to understand the existing challenges for heritage management in the country and provide a roadmap for the branding of India's built and archaeological heritage. As per the report, categorisation of built heritage has been done and it recognises industrial heritage as one of the categories of historic buildings and sites that are considered heritage.

The research project of NITI Aayog, 'Challenges Faced in Heritage Management in India and Policy Imperatives', an all India level research project to access the cultural heritage scenario of the country, including its protected and unprotected heritage, also recognises industrial heritage as a significant contributor to the heritage listing.

# 03 | Actors and Networks

## 3.1 Professional networks and membership-based organisations

### Archaeological Survey of India (ASI)

ASI is an organisation under the Ministry of Culture, Government of India that undertakes and regulates archaeological researches and activities and is responsible for the protection of the cultural heritage of the country. The organisation comprises of professionals from diverse fields like archaeology, conservation, architecture, epigraphy, science etc.

Website - <http://asiegov.gov.in/>

### Indian National Trust for Art and Cultural Heritage (INTACH)

It is a non-profit charitable membership based organisation. The mission of the organisation is to conserve heritage by stimulating and spearheading heritage awareness and conservation in India. INTACH also conducts heritage walks, organises heritage clubs in schools and holds workshops to generate awareness about the protected and unprotected heritage of India. Its listing of Heritage at Risk Register (H@R) is an ongoing database of sites at risk that are in need of assistance to be safeguarded. The list includes sites like the historic pier at Alappuzha in Kerala, Johnson Market at Bangalore, Karnataka, bridges like Soan and Havelock across Godavari River in Telangana and Andhra Pradesh, and many more industrial sites. In 2019, INTACH compiled a list of railway heritage under the Indian Railways in India, including the location of the building, its description and images.

Website - <http://www.intach.org/>

### ICOMOS India- Council on Monuments and Sites

ICOMOS India is a membership based organisation where individual members and institutions related

to conservation, protection, rehabilitation and enhancement of cultural heritage sites, interact and exchange perspectives on various aspects in the field. One of the National Scientific Committees under the organisation is Industrial Heritage (NSC-IH) that works towards raising awareness of the study and practice of Industrial Heritage in India. It aims at developing a framework to understand the nature of IH in India by not only aggregating IH cases into the mainstream heritage discourse, but also by highlighting the wide spectrum of IH sites in the country and exploring its complexity.

Website - <https://www.icomosindia.com/>

### Indian Steam Railways Society (ISRS)

*Indian Steam Railway Society (ISRS)* was formed on October 23rd, 1999 when a group of like-minded people met and discussed the present scenario and future possibilities regarding the preservation of Indian Steam Railways. Subsequently, a formal non-profit society was drafted and it has been registered with the Registrar of Societies, Delhi under Societies Registration Act XXI of 1860. The main purpose of the new society is to form a common platform for the Indian Steam Railway Enthusiasts to exchange views and further their knowledge on the subject of Indian Steam Railway. The society, along with the Indian Railway Board, will present more tourist special trains hauled by steam locomotives in the near future.

Website - <https://www.facebook.com/indiansteam-rlysociety/>



**The Indian Railway Stations Development Corporation Limited (IRSDC)**

It is the nodal agency for the redevelopment of railway stations in India. It has developed a comprehensive set of codes and guidebooks, called the 'Manual for Station Redevelopment' including Commercial Development. The focus is on sustainable and green development. The codes also include guidelines for heritage conservation based on sustainability parameters. *Shakti Sustainable Energy Foundation* and *Creative Footprints* contributed to the development of these codes and provided inputs for their fine-tuning before their adoption by the IRSDC.

**Heritage Directorate, Railway Board, Ministry of Railways**

It is a ministry in the Government of India under the Indian Railways, operating the railway transportation within the country. The *Heritage Directorate, Railways Board under the Ministry of Railways* safeguards the rich railway heritage of the nation, including locomotives, vintage coaches, wagons and built heritage of bridges, buildings, ducts etc. These heritage artefacts are well preserved in various museums across the country. In 2020, Indian Railways had over 45 rail museums, heritage galleries, and heritage parks all over the country. Efforts are being made in the direction of compiling and digitising the rail heritage inventory.

**DoCoMoMo India**

The India Chapter of the *International Committee for the Documentation and Conservation of buildings, sites and neighbourhoods of the Modern Movement (DoCoMoMo India)* works on the projects of modern movement buildings that are under threat, as well as takes responsibility to foster interest towards the heritage of modern movement. In the recent past, it has worked towards raising awareness regarding the safeguarding of important heritage buildings like Kala Academy, Goa's Cultural Centre and Indian Institute of Management Ahmedabad dormitory building.



Image39. Exhibit of a steam engine (the first electric locomotive built in India) at the Regional Rail Museum at Howrah, West Bengal. This was the first rail museum in Eastern India and has exhibits of various railway-related handmade replicas and models, and showcases the evolution of signals, electrification and tracks over the years.



Image40. Virasat Bhawan Museum at Adra displays various heritage artefacts such as the rare wireless system that was once used by the US army during the World War II and later adopted by the Indian railways.



Image41. Built in 1893, the Rewari Railway Museum at Haryana was used as a locomotive shed. It houses the world's oldest functional steam locomotive built in 1855.



3.2 Museums and Archives

As mentioned in the previous section, the Indian Railways has preserved its heritage in many museums spread all across the nation, like the *National Rail Museum in Delhi*, *Chennai Rail Museum*, *Mysuru Rail Museum* and others in Goraghpur, Uttar Pradesh. These museums along with few others are discussed in this section.

National Rail Museum, New Delhi



Image42. View of the toy train at National Rail Museum, New Delhi

The museum showcases the rich heritage of Indian Railways for over 150 years. The museum houses steam, diesel and electric locomotives along with other wagons and carriages that have been restored and maintained. The galleries showcase the remarkable story of the Indian Railways through photographic documentation, archival records, and artefacts like station furniture. Few of its possessions include the only steam monorail locomotive and coaches in working condition.

Website : <https://www.nrmindia.org/>



Image43. Engine at display at the Chennai Rail museum

Chennai Rail Museum, Tamil Nadu

This is a new museum, opened in 2002, with exhibits of train engines from pre-independence period, vintage coaches, photographs, scaled models and rail artworks. The main attraction in this museum is the micro steam engine, toy train and the office cum home-on-rail made in 1921.

International Coir Museum, Kerala



Image44. Gallery at the International Coir Museum, Kerala

The museum was established in 2014 by the Coir Board to showcase the coir industry of India and its evolution. It showcases not only the present coir manufacturing process, but also a lot of emphasis has been given to the traditional processes and how it has developed with the advent of mechanisation in the coir sector. There is also a shop for coir handicrafts in the museum.

Greco-Roman trading centre of Arikamedu

In 2021, the Government of Puducherry decided to set up a museum to display artefacts unearthed showcasing the maritime history of Arikamedu and other places in Southern India. Arikamedu was a Roman trading port between the 2nd century BCE and 8th century CE as well as a centre to manufacture textiles including cotton fabric, muslin, jewelry, stone, glass and gold beads.



Image45. Ruins of the trading post at Arikamedu

### Heritage Transport Museum, Taoru, Gurgaon

This experiential museum showcases the history of transportation, with emphasis on the Indian context and the evolution of transportation in India. It has a vast variety of transportation material including automobile, railways, two wheelers, maritime, pre-mechanised and heavy mechanised transportation, rural and aviation, along with vintage photographs, postcards, images, books, maps, receipts, stamps and other collectibles.

Website: <http://www.heritagetransportmuseum.org/>

### Kolkata Port Trust Maritime Archives and Heritage Centre, Kolkata



Image46. Kolkata Port Trust Maritime Archives and Heritage Centre, Kolkata

This heritage centre is situated inside the restored Fairlie Warehouse. It is also the point where the heritage tour by the Trust begins. The museum showcases the rich history of the port and displays original artifacts and replicas of lighthouses and ships.

### IIM-A Archives

The *Indian Institute of Management Ahmedabad* (IIMA) launched IIMA Archives in 2017, with an aim

to preserve institutional and architectural memory. It also disseminates historical information periodically, about the institute to the IIMA community and to the general public. The collection includes physical and digitised documents of the institute and business history of the country, oral history of people associated with the institute and business, and other aspects of history of Ahmedabad.

Website: <https://acrhives.iima.ac.in>



Image47. View of Louis Kahn's iconic IIM-Ahmedabad campus

### Cipla Archives

Cipla Archives is the custodian of the history of the pharmaceutical giant Cipla limited. It aims to chronicle the story of Cipla's growth and expansion, its ups and downs, successes and challenges. The Archives brings together a treasure-trove of documents, photographs and oral history interviews, among other materials. Through this initiative and related activities, it not only hopes to showcase Cipla's history, but also contribute to the development of business archives in India, and serve as a forum for debates and discussions on the history and historiography of science and the pharmaceutical industry in India.

Website - [www.facebook.com/CiplaArchives/](http://www.facebook.com/CiplaArchives/)





Image48. Interior view of the Automobile & Pre-mechanised transportation Gallery at Heritage Transport Museum, Gurgaon

### 3.3 Voluntary, non-governmental and citizen efforts

#### Maritime Mumbai Museum Society



Image49. View of Ghadiyal Ghar, the stone clock tower at Indira Dock, Mazgaon, Mumbai. The clock tower would help the ships set their maritime chronometers and offshore ships to set their clock accurately before heading into the sea.

It is a non-profit society set up by the citizens of Mumbai to create a maritime museum showcasing and preserving the maritime heritage and providing an immersive experience with information regarding the current and future work in the area. Efforts are underway to procure an existing non-operational building from the *Mumbai Port Trust* to set up the museum. Other works undertaken include creating a display of the history of Mumbai and the port, maritime heritage and a fleeting experience of working and living on a merchantman in the heritage tower at Domestic Cruise Terminal, along with a viewing gallery.

Website: <https://mmms.in/>

#### The Rail Enthusiast Society

This society was set up six years back to provide a platform to rail enthusiasts to disseminate knowledge, air their views and exchange ideas regarding the railways in India and overseas. Till date, 21 issues have been published of their quarterly magazine including topics like history and heritage, rail tunnels, rail architecture, Anglo-Indians and the Railways, rail electrification, etc. They also organise monthly virtual talks, visits to rail establishments like work sites, stations and maintenance depots,

guided rail trips, debates and quizzes for students, training of volunteers for the National Rail Museum, interaction with schools, etc. along with their newly started annual conferences.

Website - <https://www.railenthusiastindia.org.in/>

#### Mumbai Metropolitan Region (MMR)- Heritage Conservation Society (HCS) and MMR-Environment Improvement Society (EIS)

MMR-HCS was set up in 1996 by MMRDA for the protection, preservation and conservation of heritage in the region with detailed research and documentation of heritage, along with other related activities. Several initiatives have been taken in this direction like studying of the heritage precinct, listing of sites in the area with heritage significance, conservation projects, and outreach and capacity building programmes.

Website: <http://www.mmrhcs.org.in/>

#### Baroda Heritage Trust



Image50. Participants of the Heritage ride organised by Baroda Heritage Trust to the historic stepwells of Baroda city

The trust was formed in 1984 by professionals keen to safeguard the city's heritage, with a focus on creating awareness of the heritage in the city. The trust has organised many lecture series in the past like the Viraasat Lecture and has also released an inventory record of the Baroda Collective, along with other books on Pavagadh, Baroda and other aspects of heritage. Since 2018, the trust has been publishing a quarterly newsletter, Dharohar, focussing on generating awareness on the heritage, museums, events and conservation initiatives in the



city and around. Lately in November 2021, the trust organised a heritage ride to the stepwells of Baroda. Website: <https://www.heritagetrustbaroda.org/>

### Calcutta Heritage Collective (CHC)

It is a voluntary citizens' initiative formed with the objective of restoring, reviving and reusing the built heritage of Kolkata and West Bengal. People from various backgrounds and professions have come together to generate awareness among the locals and at a bigger platform by organising events, quiz series for schools and educational sessions. It also publishes a journal every month for internal circulation within the members of CHC about the works undertaken and also upcoming events. Their latest May 2022 issues cover 'The Bengal Story' about the managing agencies based in Calcutta (now called Kolkata) that held companies including tea gardens, jute mills, coal mines etc. They also publish about heritage tours to the many lesser known heritage sites of the city.

Website: <https://calcuttaheritagecollective.com/chc-journal.php>

### Asansol Heritage Research Group

It is a virtual platform to generate awareness by sharing information as well as suggestions among professionals in the field of culture, ecology, architecture, literature and other experts towards the heritage of Asansol. The research group believes that the architectural heritage of Asansol is important and may play a significant part in the revival the historic place.

Website: <https://www.facebook.com/groups/2004235606524705/>

### Calcutta Tram Users Association (CTUA)

CTUA is a political organisation formed in 2016 by the local people of West Bengal, with a common interest in safeguarding the tramways of Kolkata. The aim of this association is to actively engage with the West Bengal Transport Department and the Government of West Bengal in order to generate

public awareness about the thriving tram network and to safeguard and secure its future.

Website: <https://ctua.in>



Image51. View of Kolkata trams

# 04 | Present State of Conservation

## 4.1 Recent Conservation Projects

### Mumbai Cotton Mills

It has been more than a decade since the redevelopment of the *Mumbai Cotton Mills* began, which includes demolition of many of the historic mills. At present, what remains is either under the Government of India, the National Textile Corporation, Maharashtra State Textile Corporation or the private sector. A study group has been prepared to integrate the development plan for the textile mills land by the UDRI. It designated the area as a Textile Mill Precinct and a Master Plan with development controls has been proposed.



Image52. View of the Mumbai Cotton Mills

### Conservation and Revitalisation of Rajbagh Silk Factory and Solina Silk Mills, Srinagar

Silk and sericulture has been a traditional industry in Jammu and Kashmir. In 2021, Jammu and Kashmir industry initiated the project to promote a few selected products as part of the cultural legacy. The World Bank (Jhelum Tawi Flood Recovery Project) funded the project on reviving Kashmir's silk industry by restoring and restarting the Solina and Rajbagh silk factory, along with aid from the Central Silk Board. They assisted in setting up a showroom-cum-interpretation centre at Bemina, Srinagar. Other stages of work include the upgradation of machinery

and ancillary works, along with plans of undertaking training programmes for skill development.



Image53. View of the restoration work at Rajbagh Silk factory, J&K

### Railway Station Redevelopment Projects

Redevelopment projects of railway stations by the Railway Land Development Authority are in full swing. This includes traffic management, passenger traffic decongestion, integration of station with the city and connectivity. The historic station at *Habibganj* in Bhopal, Madhya Pradesh has been recently completed with enhanced visitor infrastructure and modern amenities. Lately, the redevelopment of Bengaluru Cantonment and Yesvantur Junction railway station has been kick started.



Image54. View of the redeveloped Habibganj Railway Station at Bhopal



# Lounges and more, city's oldest rly station may go world-class

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K Sunil Prasad

**Bengaluru:** The 158-year-old Cantonment railway station will soon be redeveloped and is likely to provide an airport-like experience to passengers and other visitors with a slew of modern amenities like air-conditioned waiting areas and retail spaces.

South Western Railway officials said they recently hired a technical consultant to prepare a master plan, and a design is being chalked out in sync with the existing heritage building.

Cantonment station, which began operations in 1864, is Bengaluru's first railway station. If all goes according to SWR's plan, it will be the second world-class railway station in the city after Sir MV terminal at Byappanahalli, which will be opened on June 6. "It will be revamped on an EPC (engineering, procurement and construction) model at an estimated cost of Rs 500 crore. We are planning to invite the tender by June-end. Documents are being prepared," said an SWR official.

"The new station building will come up at the main entry (Vasanthnagar side) and second entry (Millers Road), while preserving the existing heritage structure at the main entry. It will be a centrally air-conditioned world-class terminal," said an SWR official. It will have segregated arrival and departure lounges. "Air concourse will be provided utilising air space above the existing platform, which will have modern waiting areas for passengers along with retail spaces, similar to airports," said an official.

He said: "Arrival and departure will be segregated with separate entry and exit points to



The new building of Cantonment station will have green features like solar panels and rainwater harvesting system, apart from sewage treatment plant

## TIMES VIEW

A plush makeover for Cantonment railway station will boost the image of Bengaluru, which often gets brickbats for its crumbling infrastructure despite the IT capital tag. However, like many other ambitious projects, it shouldn't remain on paper as design tweaks will only lead to missed deadlines and cost overruns, Byappanahalli's Sir MV terminal being a case in point. While separate entry/exit points have been envisaged to cut congestion, the redevelopment work is bound to trigger chaos and SWR must ensure minimal inconvenience to travellers. Also, heritage shouldn't be compromised for the sake of aesthetics. The revamp plan is welcome, but simultaneously fast-tracking the suburban rail project will spell greater relief for passengers.

prevent crowding. Ticketing areas will also be separated from the entrance concourse for easy movement. The building will be disabled friendly."

There will be separate pick-up and drop-off zones for cabs and private vehicles in front of the station to reduce congestion. Bus bays will be provided for BMTC vehicles. "A two-floor basement parking is planned at the main and second entries," said an official.

Under EPC, the contractor is responsible for design, procurement, construction, commissioning and handover of a project. The Centre had earlier decided to collect user development fee at redeveloped railway stations via tickets, a la airports.

SWR chief public relations

officer Aneesh Hegde, said: "The station will be redeveloped by maintaining its heritage and facilities will be upgraded as per airport standards."

Passengers from nearby areas like Vasanthnagar, Jayamahal, Benson Town and Shivajinagar mainly use the station. At present, there are four platforms and SWR is planning two more. Also, there are plans to convert Cantonment into a suburban terminal on the lines of Mumbai's Victoria terminus. In 2017, the railways planned to redevelop over 2.2 acres of Cantonment station but there were no takers. Later, it was handed over to Indian Railway Stations Development Corporation Limited and RLDA. Now, SWR is taking up the revamp work.

Museum on Maritime History of Mumbai

The *Mumbai Port Trust (MbPT)* and the *Mumbai Maritime Society* envisaged a museum dedicated to Mumbai’s maritime history in 2018 within the 19th century docktower and the Ghariyal Ghar or the Port Traffic Office in Carnac Bunder. It is intended to display artefacts of maritime heritage like the clocks, fire-fighting equipments, painting, lamps etc. It showcases the history of Mumbai harbour, the contributions of the British and the evolution of the port.

Adaptive Reuse of Laxmi Mills, Coimbatore

The historic *Laxmi Mills*, set up in 1910, was used for spinning, weaving and bleaching. In 1930, more structures were added within the complex. The production stopped in 2008 and the operations were shifted to a new place. In order to retain the memory of this industrial site, it has been reused as a public space, by retaining the old structure and evolving the urban character within the complex. As quoted by Design Consortium, Coimbatore, “Intervention enhances the character of the industrial memory: brick clad walls, exposed concrete columns, concrete flooring, metal windows, doors, roof frames painted in black, the wired-mesh glass panes in the windows.” It is also planned to set up a museum in the complex to display the industrial heritage of the site with old photographs, machinery parts, fragments of the fabric woven in the factory and other elements.



Image56. Interior view of Laxmi mills at Coimbatore currently used as a contemporary space

Badarpur Eco-Park, New Delhi

A new eco park has been proposed at the site of fly ash disposal area of the erstwhile *Badarpur Thermal*

*Power Plant* (currently shut down). Covering an approximate area of 884 acres, the park is proposed to be India’s largest mandate park with open jeep safari, public recreation areas, lakes, cycle tracks, sports zones, open gyms and other attractions. This park will not only provide a vast open area, but also help in maintaining the ecology of the area, provisioning a natural habitat to the flora and fauna.



Image57. Proposed plan for the Badarpur eco-park, New Delhi



Image58. View of the redeveloped eco-park at Badarpur, New Delhi

Revitalisation of Alembic Pharmaceuticals, Ahmedabad

The *Alembic factory* in Vadodara has been conserved and put to adaptive reuse. Maintaining the historic material and physical quality of the space, the industrial building is now being used as Alembic Museum with art studios, display and exhibition space, library AV room and cafe. Specific architectural elements like the roof trusses have been retained to maintain the industrial nature of the built structure.





Image59. View of the revitalised factory of Alembic Pharmaceuticals at Ahmedabad

**Office for the Commonwealth Tile Factory**



Image60. View of the Commonwealth Tile factory at Mangalore on the banks of River Netravati that provided clay and means of transportation

This factory in Mangalore was once the first *Basel Mission Tile factory* in India. In around 1865, tile making provided a source of employment to the Christian converts in India and was in great demand. With time, the demand reduced and depleting sources of clay led to severe decline of the industry. Most of the factory sites were abandoned or demolished, and out of 75 factories, only two factories in Mangalore manufacture tiles at present. The Commonwealth Tile factory has now been proposed to be reused for the production of terracotta hollow blocks, bricks and hourdi bricks.

**Kattha Factory to Design School**

TDV, an architecture and design studio in Noida, incorporated the space of an *abandoned Kattha factory* into its campus. Retaining the inherent nature of the factory, the students transformed the factory into an institute. The building now includes a museum, studios, computer lab and library. Many of the machines are now displayed as sculptures in spaces marking the industrial era of the structure.





Image61. Restored interiors of Design Village, Noida

## Revitalization of the Former Ice Factory, Mumbai

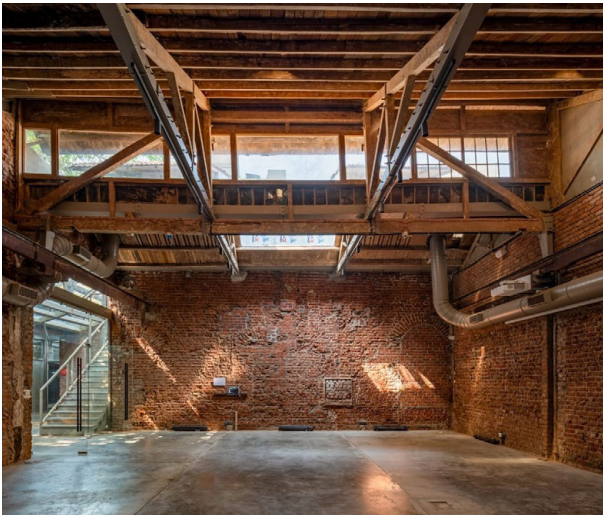


Image62. Restored section of the Ice Factory at Mumbai that has been converted to a space for events, performances and workshops

This old Ice Factory in Billard Estate in Mumbai is one of the storehouses where ice was stored after importing it from Boston. The building was in a state of disrepair due to neglect. It has been refurbished and is now being used as a cultural hub, space for hosting exhibitions, performances and workshops, and houses gift shop, cafe, restaurant and bar.



Image63. Restored section of the Ice factory at Mumbai that has been converted to a cafe by retaining the old banyan tree in its central courtyard

## Tallah Tank, Kolkata

In June 2019, repair and restoration of one of the four blocks of the 109-year-old Tallah water tank was completed. Tallah is the world's largest overhead reservoir supplying water to Kolkata. The iconic tank is 110 feet high and stores 9 million gallons of water



and underwent maintenance and repair for the first time. It is a feat of civil engineering and metallurgy. Based on the scheme of the Municipal Engineer, William Clark, and designed by the Chief Engineer of the then Calcutta Corporation, WB MacCabe, the construction of the tank commenced in 1909 and was completed in 1911. The entire tank is divided into four independent compartments such that the tank can be cleaned or repaired anytime without disrupting the water supply.

### **The Parcel Café, General Post Office Kolkata (GPO)**

The *GPO of Kolkata* opened door to the country's first postal café 'Siuli-The Parcel Café'. India has the largest postal network in the world with 154,965 post offices, as of March 31st, 2017, according to the India Post website. The café is an attempt to revive the relationship of its declining customer base of post and postal heritage.

### **Museo Camera**

The largest not-for-profit camera museum in Asia, *Museo Camera - Centre for Photographic Arts, Gurugram* outside Delhi is an initiative of India Photo Archive Foundation and hosts the personal collection of the archivist, historian and photographer, Aditya Arya. Museo Camera has studio spaces, exhibition galleries showcasing contemporary art practices, a reference library, a fully functional darkroom, and a cafe on the premises, in addition to the museum collection. The collection of over 2,500 cameras and other photographic equipment, dating back to the 1850s, vintage photographs and history of photography, on display at this unique museum was launched in 2019. This year, in celebration of 75 years of India's independence, the museum will host 'Drishti: 75 Years of Indian Image Making' where it will showcase the work of 82 renowned photographers. Website: <https://www.museocamera.org>



*Image64. Archival photograph taken by an unknown photographer in the 1880s in Calcutta, part of the Bellew Collection of Architectural Views, with a view looking across the tank (reservoir) in Dalhousie Square towards the General Post Office on the north-west corner*



Image65. View of the display at Museo Camera, Gurgaon

### Science Gallery, Bengaluru (SGB)

Science Gallery Bengaluru (SGB) is a not-for-profit public institution for research-based engagement targeted at young adults. It works at the interface between the natural and human sciences, engineering and the arts through a Public Lab Complex, ever-changing exhibitions, and mentorship programmes. SGB is established with the founding support of the Government of Karnataka and three academic partners- the *Indian Institute of Science*, *National Centre for Biological Sciences*, and *Srishti Institute of Art, Design and Technology*. It is a member of the Global Science Gallery Network with sister galleries in Atlanta, Berlin, Detroit, Dublin, London, Melbourne and Rotterdam.

The Director of the museum, Jahnvi Phalkey, is a historian of science and technology and a lecturer at King's College London. Science Gallery International (SGI), the charity established to develop the Global Science Gallery Network, hopes to establish eight university-linked galleries worldwide by 2020.

Website: <https://bengaluru.sciencegallery.com>

### Commercial run of Beyer Garratt Steam Locomotive, Kharagpur

Beyer Garratt steam locomotive, also known as the "mighty beast" by rail enthusiasts and officials, has been restored in a workshop on Kharagpur, West Bengal. In 2018, it was set on a 22 kilometres trial run on the main line of South Eastern Railways. This locomotive was built in 1929 and was one of the technological revolution in steam engines at that time. The engine was put on display at the Kharagpur workshop since its retirement 50 year back. It was revived once in 2006 for a ceremonial heritage run, and in 2018, it was revived to be put on a trial run by replacing and sourcing all the vital parts to bring back the engine to life.



Image66. View of the Beyer Garratt steam locomotive, Kharagpur



National Salt Satyagraha Memorial

This memorial in Dandi, Gujarat is built to commemorate the Dandi March in 1930, a landmark event in the Indian freedom struggle. It marks the event when Mahatma Gandhi and eighty satyagrahis walked from Sabarmati Ashram in Ahmedabad to the coastal town of Dandi and broke the Salt Law imposed by the British by making their own salt. This symbolic event inspired many Indians to join the freedom struggle and finally led to the end of colonial rule in India. In addition to the memorial sculpture, there are 22 narrative murals in the 15 acre complex that represent the story of the salt satyagraha, a march that marked the act of non-violent civil disobedience in India.



Image67. View of the National Salt Satyagraha memorial with the two arms symbolising two hands and the glass cube on top representing the salt crystal



Image68. The narrative murals within the National Salt Satyagraha Memorial complex

Dharwad Clock Restoration

The *heritage clock tower* at the *Karnataka Arts College* in Dharwad has been recently restored by a team of technical officers and experts from the rail carriage workshop of the South Western Railway. Built in 1890, this heritage building was functioning as the central office of the Southern Mahratta Railway. Later, it was taken over by the government of Bombay Presidency and in 1920, it started functioning as a college. The clock tower was imported from London by legendary clock maker P.Orr & Sons, Madras, and commissioned in 1890. The restoration of the clock went on for approximately one month, including repair and manufacturing of the broken parts. Most of the parts were reclaimed or manufactured in house by the team of experts.



Image69. The historic machinery of the Dharwad clock tower

4.2 Documentation Projects

Documentation of Railway Heritage by INTACH

The document was prepared in 2019 with a list of railway heritage under the Indian Railways across the country. The list has been compiled from the documents by INTACH over the years and through secondary research including the Indian Railways website. Along with the database, a Google Earth map has been prepared which contains the location with images and brief descriptions of the buildings. Approximately 151 structures have been listed at present.

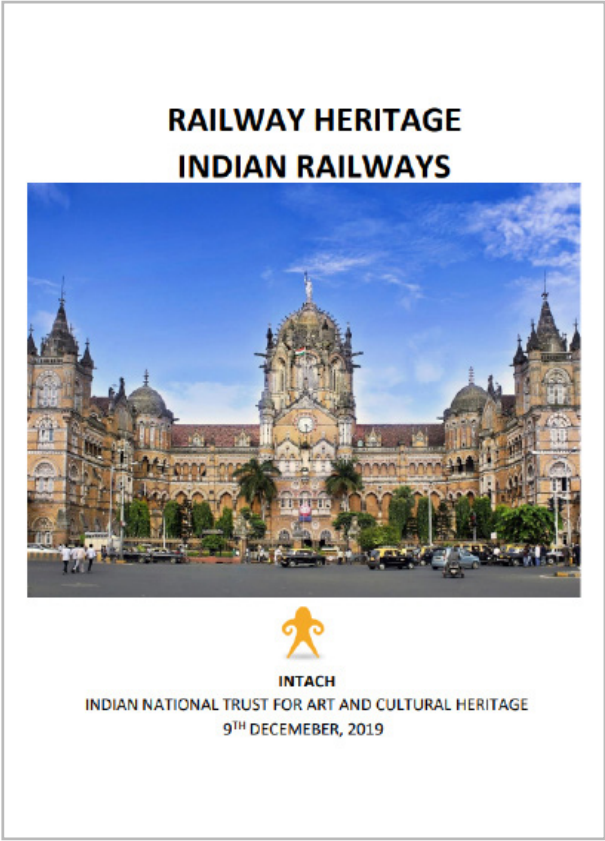


Image70. Report on the Documentation of railway heritage by INTACH

A list of Rail Museums/ Heritage Gallery/ Art Gallery/ Heritage Parks etc. of the Indian Railways has been prepared. 37 of these museums and galleries have been listed, out of which, 34 are operational and three are under development. A photo gallery of 15 of these museums are available online. Digital screens have been set up at the museums to showcase the heritage of the stations.

Kochi Cultural Mapping by Sahapedia

The extensive exercise of cultural mapping of *Fort Kochi-Mattancherry* in Kerala has been undertaken by *Sahapedia* in collaboration with the Kochi-Muziris Biennale Foundation, including mapping of the tangible and intangible heritage of the area. It was a port for the trade of silk, honey and horses in exchange of black pepper. Approximately 150 sites have been listed on the interactive cultural map and helps to navigate through the complex layering of the history of Fort Kochi and Mattancherry.



Image71. View of Fort Immanuel at Fort Kochi beach

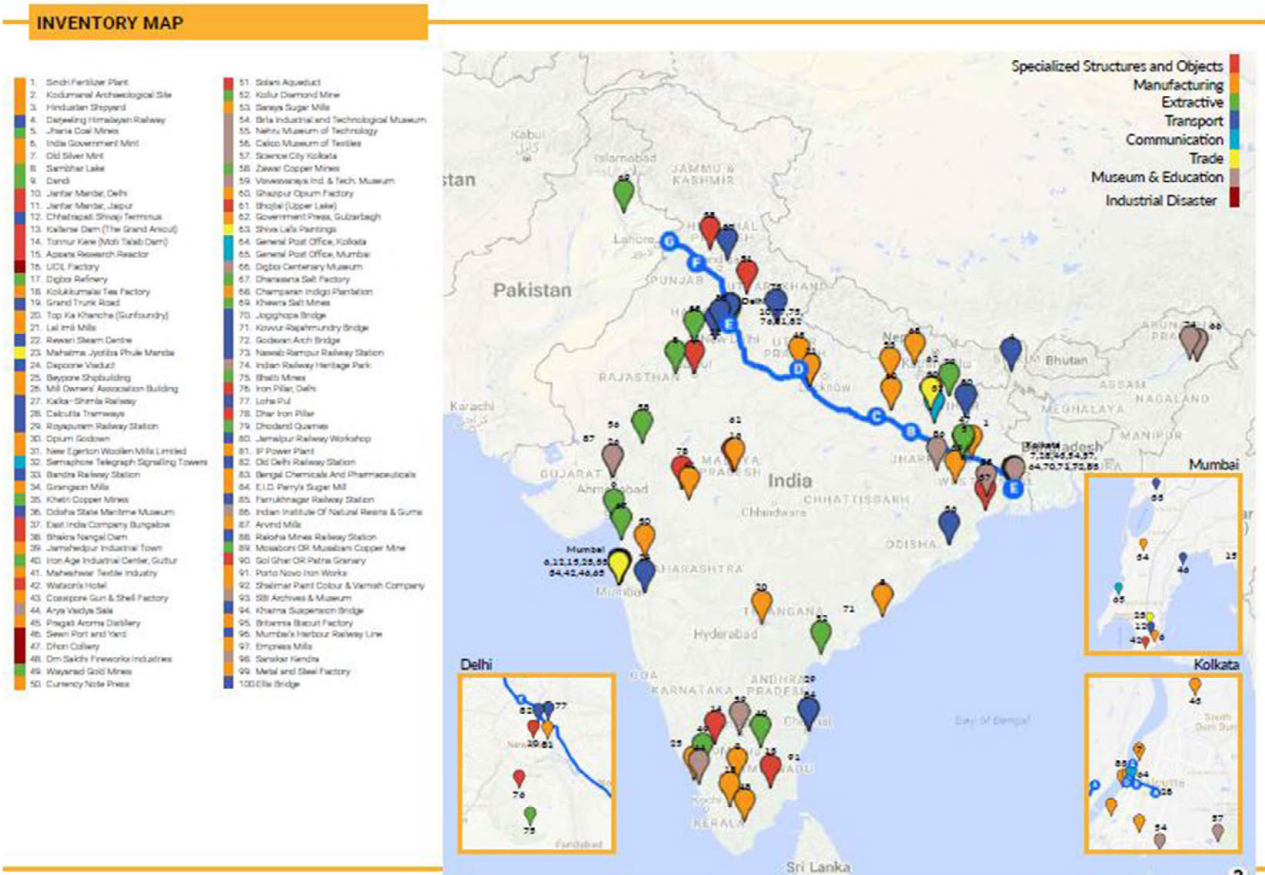


Image72. Built in 1921, Tea Bungalow was the office of a British Company trading in coir and spices

Inventory of Industrial Heritage of India

This extensive compilation by Moulshri Johsi is an ongoing attempt to map the industrial past and its vestiges and recognise them in the Indian context. It is an atlas of significant industrial sites and institutions and more than 300 sites across India from manufacturing industry, railway industry, transport industry etc. have been mapped.





Sindri Fertilizer Plant



Kodumal Archaeological Site



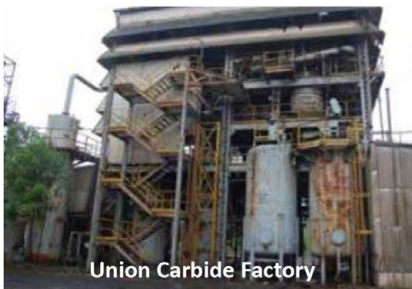
Darjeeling Himalayan Railway



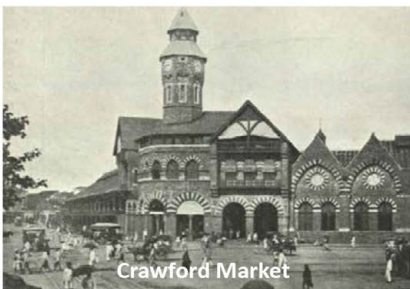
Jantar Mantar



Victoria Terminus Station



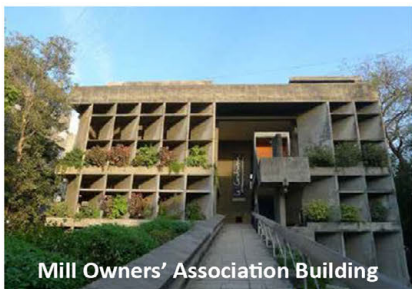
Union Carbide Factory



Crawford Market



Dapoorie Viaduct



Mill Owners' Association Building

Image73. Keyplan and images of selected sites from the report titled 'Inventory of Industrial heritage in India' prepared by Ar.Moulshri Joshi (an ongoing mapping initiative)

### 4.3 State of Education

There are no specific academic institutes that focus on industrial heritage as a subject in the education programmes. At the school level, broad knowledge of history and culture is imparted. There are specific studio projects and courses that focus on heritage that have been part of the industrial era. Organisations like ITIHAAS work towards embedding heritage studies into the school curriculum, help the students experience heritage and take pride and ownership.



Image74. Field visit for students organised by ITIHAAS to the heritage site of Qutb Minar

#### **Educational institutes offering education in the field of architectural conservation**

##### **School of Planning and Architecture, New Delhi**

Master's degree in Architectural Conservation in School of Planning and Architecture (SPA), New Delhi is a two year programme. It addresses built heritage resources comprising historic buildings, heritage cities and cultural landscapes, in a comprehensive manner and aids students to develop their skill set to expand their architectural practices to conservation and design in historic areas.

Website: [www.spa.ac.in](http://www.spa.ac.in)

##### **School of Planning and Architecture, Bhopal**

Masters of Architecture (Conservation) course at SPA Bhopal is a two year programme devised for training the students towards theory and philosophies in conservation, process and techniques necessary for maintenance and management of heritage, and appropriate usage of standards of practice. The course trains students to facilitate informed decision making and application of the acquired skills and techniques.

Website - [www.spabhopal.ac.in/](http://www.spabhopal.ac.in/)

##### **Indian Institute of Science, Bangalore**

IISc was started by the leading industrialist of India, Jamsetji Nusserwanji Tata, the Mysore royal family and the Government of India. It is a premier institute for advanced scientific and technological research and education. It aims at applying basic knowledge and research for industrial and social benefits. The National Institute of Advanced Studies (NIAS) was set up in 1988 to conduct multidisciplinary research, regular public lectures, conference and seminars to facilitate discussion and aid in research in science and technology, philosophy, social issues and leadership. Sharada Srinivasan is an archaeometallurgist and professor at National Institute of Advanced Studies at IISc. She has been working in the field of past Indian metallurgical techniques and has written articles on wootz steel, ancient Indian metallurgy, metal icons, mirror craft etc.

Website: <https://iisc.ac.in/>

##### **Indian Institute of Management, Ahmedabad (IIMA)**

IIMA is a business school in Ahmedabad, Gujarat and has been a pioneer institute in the field of business history in India. IIMA Archives act as a repository in preserving the institutional and architectural memory of the institute. It engages with the youth of the country in developing research projects as the internship programme. It also offers elective courses for MBA and PhD for global business and economic history.



## Sahapedia Baithak on 'Railway Heritage'

The Baithak 'Industrial Heritage of Railways in India' was held as a part of the India Heritage Walk Festival 2020. These Baithaks are held as an informal multi-disciplinary platform to promote discussion and dialogue to understand heritage in the present context. It had eminent speakers from diverse backgrounds and experience in railways and heritage, who helped shed light on the various facets of the railways heritage and its significance and helped in charting out well-defined goals to safeguard the railway heritage of India and acknowledge and recognise it on the global map.

Website: <https://www.sahapedia.org/>

## INTACH Heritage Academy

INTACH Heritage Academy has been envisioned as "a centre of excellence for training, research and capacity building relating to cultural and natural heritage in India". Along with research, the academy aims at training and capacity building in all aspects of heritage conservation and management. They offer PG Diploma, online certification courses, short term certification in heritage studies, research scholarships and publish annual journals on various aspects of heritage. In 2017-18, the academy conducted a training programme 'Assessing India's Industrial Heritage' at Surat, Gujarat, a workshop organised in collaboration with Raman Bhakta School of Architecture, Surat and INTACH Surat Chapter. In 2018-19, it organised a course on the industrial heritage of India to understand the connection between 'heritage' and 'industry' in the Indian context and its significance over time. In 2019, a masterclass was delivered on industrial heritage of India by professionals, Moulshri Joshi and Amritha Ballal, with a visit to the iconic Modi Mills in Delhi.



Image75. View of Modi Mills, Delhi



Image76. Field visit to Modi Mills, Delhi as part of a masterclass organised by INTACH Heritage Academy

## Thesis at undergraduate and postgraduate levels, doctorate programmes

Architecture students have been taking up thesis topics at undergraduate level and postgraduate level in architectural conservation that recognise industrial heritage as an important part of the heritage and culture of India. Few of the thesis undertaken by students have been listed below. This is just a small window that showcases the depth of understanding, more research will be required to put together the entire spectrum of works undertaken at the level in the near future.

### Traditional Industrial Landscape of Sambhar, Rajasthan

2009, M. Arch thesis | SPA, Delhi

Author - Somya Johri

The thesis focusses on understanding Sambhar as an industrial landscape with the salt industry playing a vital role in its evolution. It studies the changing fabric of the settlement of Sambhar, a historic town, with the evolution of salt manufacturing processes and its impact on the ecology, the life cycle of the industrial heritage and the impact of the industry on the life of the locals. The British came to this region to tap on this white gold and the houses/ havelis in Sambhar are a true depiction of the wealth that came with the salt trade. The natural salt pans were altered and dam was built on the lake to maximise the salt production. Today, salt is still manufactured in Sambhar but the link with the settlement is lost.

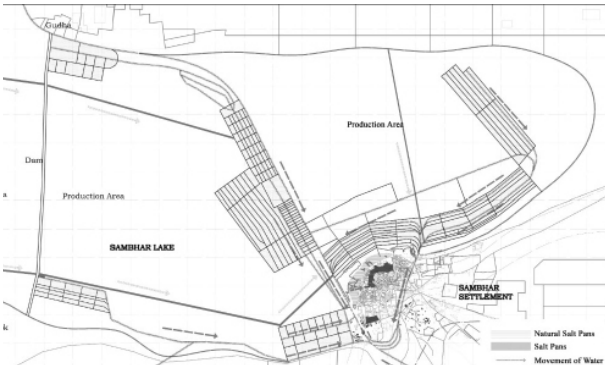


Image77. Map of the industrial area of Sambhar Lake and its relation with the Sambhar settlement



Image78. Main market in Sambhar town with semi-covered areas used historically for trade with upper floor used for storage of salt, now abandoned or houses administrative offices



Image79. Sambhar Salt Museum, a late 19th century structure built by the British to display salt samples from all over India. Its dome was used as a water tank.



Image80. Abandoned warehouses along the railway line, once used for storage of salt during the British period

### Adaptive Reuse of Rajghat Power Plant at New Delhi

2018, B.Arch Thesis

Author - Aarushi Kalra

A conceptual adaptive reuse proposal as a Fashion Hub was given for the *Rajghat Power station* in New Delhi.

<https://architecture.live/adpative-reuse-of-rajghat-power-plant-at-new-delhi-by-aarushi-kalra/>

### Reuse of Industrial Heritage Sites, Study of Approaches for the Case of Ahmedabad

2020, B. Arch Thesis | Nirma University

Author - Kuhoo Patel

The study discusses how the textile industry was integrated in urban development and with the link getting lost, it is leading to the loss of heritage sites which once formed the core of the city. The thesis provides a framework for appropriate reuse for the industrial heritage sites.

[https://www.researchgate.net/publication/343416355\\_Reuse\\_of\\_Industrial\\_Heritage\\_Sites\\_Study\\_of\\_Approaches\\_for\\_the\\_Case\\_of\\_Ahmedabad\\_Kuhoo\\_Patel\\_Architectural\\_Urban\\_Research\\_Thesis](https://www.researchgate.net/publication/343416355_Reuse_of_Industrial_Heritage_Sites_Study_of_Approaches_for_the_Case_of_Ahmedabad_Kuhoo_Patel_Architectural_Urban_Research_Thesis)

### Revitalizing abandoned Mills in India, The Case of Tamil Nadu

2021, B.Arch Dissertation | Lovely School of Architecture and Design, Lovely Professional University

Author - Isha Peter

<https://www.ijert.org/revitalizing-abandoned-mills-in-india-the-case-of-tamil-nadu>



5.1 Publications

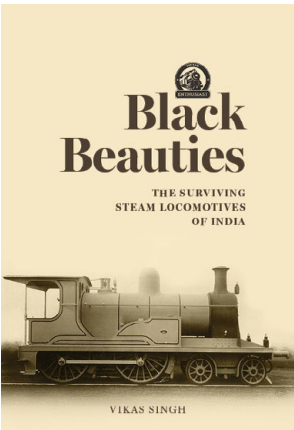
World Heritage Day: Iron foundry in Nahargarh and tracing the roots of Metallurgy in India

By Monidipa Bose Dey  
Financial Express, April 17, 2022  
<https://www.financialexpress.com/lifestyle/travel-tourism/>



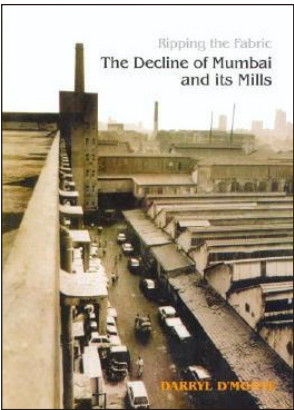
Experience old world charm in a 1940s tram, at Gurgaon’s Heritage Transport Museum

By Naina Arora  
Hindustan Times, December 8, 2017  
<https://www.hindustantimes.com/gurgaon/experience-old-world-charm-in-a-1940s-tram-at-gurgaon-s-heritage-transport-museum/>



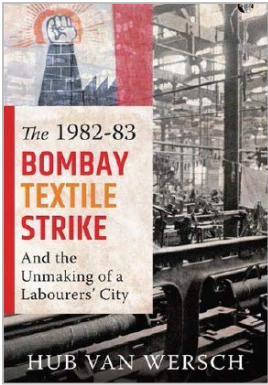
Black Beauties – The surviving Steam Locomotives of India

Author - Vikas Singh.  
Published by The Rail Enthusiast, this book was released during the first conference in 2021. It covers the history and development of Indian steam locomotives, including the status of restoration and revival. It has a photographic documentation of surviving steam locomotives in India, covering 303 Indian steam survivors at 119 locations, out of which 43 are still in working condition.



Ripping the Fabric: The Decline of Mumbai And its Mills

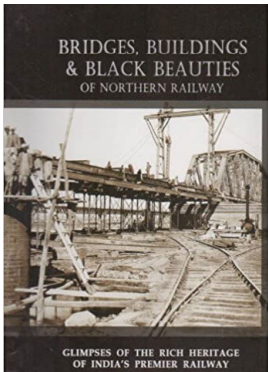
Author - Darryl D'Monte  
It is a book that assesses the growth and decline of the cotton mills in Mumbai and understands the layers of restructuring of the industry and the role of its stakeholders.



### The 1982–83 Bombay Textile Strike and the Unmaking of a Labourers’ City

Author - Hub Van Wersch

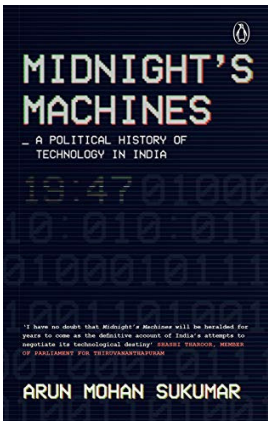
It is a book with details on the textile industry and the city that settled along Bombay.



### Bridges, Buildings & Black Beauties of Northern Railways

Author - Vinoo N. Mathur

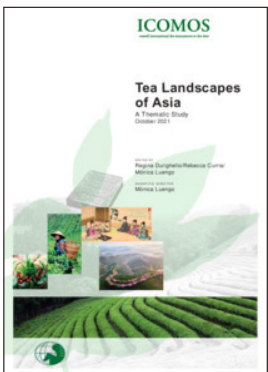
The book talks about the glimpses of the rich heritage of India’s premier railways.



### Midnight’s Machines: A Political History of Technology in India

Author - Arun Monhan Sukumar

It is a book based on the modernisation of engineering technology in India since independence. It also explains why there is a need to understand technology in order to expand horizons, its evolution and changing usages over time.



### Tea Landscapes of Asia, A Thematic Study

Publisher - ICOMOS

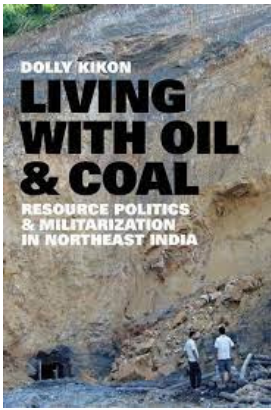
Edited by Regina Durighello, Rebecca Currie and Scientific Director Mónica Luengo

Tea is the most consumed manufactured drink in the world and the book explores this agricultural landscape. The section on the Indian subcontinent includes the history of tea cultivation and its landscape in India and Sri Lanka and also explore the trade of tea from India to Kenya and other countries.

### Report on conservation of Durand Institute, Asansol

Published by the Indian Railways, the report titled ‘The Eastern Railway- Durand Institute, now Vivekananda Institute, An Edifice of Cultural Heritage’ discusses the most famous building of the Eastern Railways, its significance over time, its evolution and change in usage.

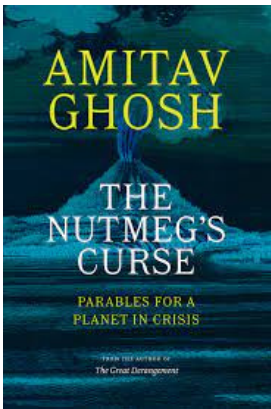




## Living with Oil and Coal – Resource Politics and Militarization of Northeast India

Author - Dolly Kikon

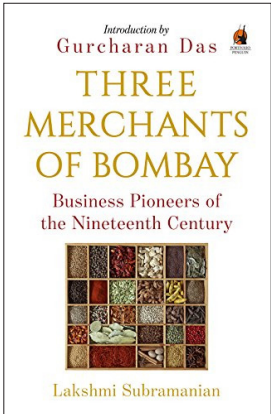
Published in 2019, it is about the discovery of oil in the eastern Himalayan foothills in the 19th century and the impact of tea plantations and other extractive industries in the region. The book discusses the ethnographic accounts of the complexity of Northeast India, specially the Indian states of Assam and Nagaland, that struggle for the search for peace in between the natural resources and violence in the area. The author captures the social bonds that have been established through practices of resource extraction, the local affection towards the landscape of the area and the environmental politics of the region.



## The Nutmeg's Curse: Parables for a Planet in Crisis

Author - Amitav Ghosh

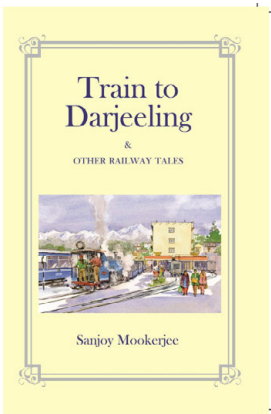
Set against the backdrop of the global pandemic and the Black Lives Matter protests, this book by Amitav Ghosh traces the contemporary planetary crisis back to the discovery of the New World and the sea route to the Indian Ocean. It discusses the history of environmental crisis, and its connection with earthly materials like spices, tea, sugarcane, opium, and fossil fuels. The book gives a critique of the western colonialism and exploitation of human life and natural environment and how the human history is shaped by non-human forces.



## Three Merchants of Bombay

Author - Lakshmi Subramaniam

Three Merchants of Bombay is the story of three merchants who traded out of Bombay in the 19th century, founding pioneering business empires by exploiting the opportunities that came their way. The book talks about the phase of transition, the prosperity, the success and the risks that came along with the unforeseen changes in the global and local economies in India. The book talks of the story in the perspective of the history of economic development in South Asia.



## The Train to Darjeeling & Other Railway Tales

Author - Sanjoy Mookerjee

This book is a collection of stories about the railways in India from the perspectives of railwaymen, capturing the railway heritage and traditions. This book is a compilation of facts and stories from an insider perspective and saluting the human spirit of India's railway persons who have worked endlessly.

Heritage at Risk Register (H@R) by INTACH

As part of the ‘State of Built Heritage of India: Case of the Unprotected (SoBHI)’, a pan-India initiative by INTACH to highlight the challenges and apathy towards the unprotected built heritage of India, H@R is an ongoing database of endangered built heritage, that helps in generating awareness as well as identify potential conservation initiatives. It aids to soliciting attention of policy-makers to conservation priority and generate awareness on various typologies of unprotected built heritage that may be taken up with the involvement of the community, government bodies and/or the private sector, and INTACH can be a knowledge partner. A year long social media campaign was launched by INTACH on the World

Heritage Day in 2021, to bring attention to the lesser known unprotected built heritage of India. As part of this initiative, one endangered historic site is highlighted each day from the Heritage at Risk Register and is brought to the notice of the locals and authorities. The main aim of this exercise is to seek assistance from the public in order to facilitate conservation works of the historic property. This is either done by providing contact with the local community or authorities, or by raising awareness campaigns for the historic structures, or by helping in generating funds. Many industrial heritage sites are a part of the list and are hoping to get adequate attention.



उपहासक भवन  
Srinagar, Jammu & Kashmir



मिहिरास पोत  
Alappuzha, Kerala



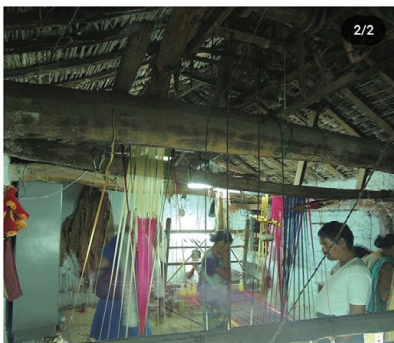
बेनीमिहिरास पोत  
European Ward, Shillong, Meghalaya



निरीक्षण बंगला  
Thak, Aizawl district, Mizoram



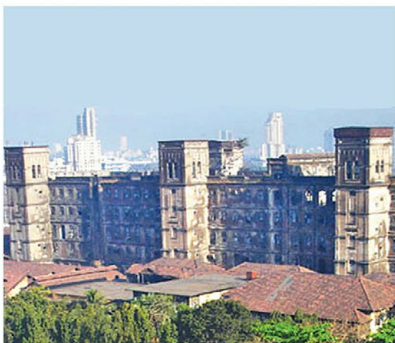
वीहनिट : इटहिरास पोत टोलपोट (अवशेष संरचना)  
Ambala, Haryana



वटमिहिरास पोत टोलपोट  
Jalapuram (near Pachampally), Nalgonda District



इहानिहिरास पोत टोलपोट  
Jamnagar, Gujarat



इहानिहिरास पोत टोलपोट  
Changan, Mumbai, Maharashtra



इहानिहिरास पोत टोलपोट  
Rajamahendravaram, East Godavari District, Andhra Pradesh



Image81. Few of the industrial heritage site that are part of the Heritage at Risk Register by INTACH



## 5.2 Conferences and Events

### Virtual seminar India-Taiwan Online Forum

October 2020 | Online

This virtual seminar on Railway Cultural Heritage Conservation was organised by the *Ministry of Culture, Taiwan* and co-organised by the *Heritage Directorate, Railway Board, Ministry of Railways, India*. The aim of the seminar was to discuss the promotion of thematic heritage tourism, exchange knowledge on the preservation of mountain railways and maintaining the tangible and intangible rail inventory amid increasing natural disasters due to climate change.

### Romancing the Rail

March 6-7, 2021 | Online

The first global conference on, by and for the Rail Enthusiasts became a two day conference held on the online platform with eminent speakers from all around the world like Alexander Karnes, Aparna Garg, Arup Chatterjee, Ashwani Lohani, Ian Thomson Newman, Michael Whitehouse, Paul Theroux, Paul Whittle, Ragini Yechury, Samit Roychoudhury, Dr. Stephen, P.J. Cossey, T R Raghunandan, Tarun Thakral, Trevor Heath and Warren Miller.

[https://www.railenthusiastindia.org.in/portal/sites/default/files/Event-Brochure%20Romancing\\_the\\_rail-2021-02-28.pdf](https://www.railenthusiastindia.org.in/portal/sites/default/files/Event-Brochure%20Romancing_the_rail-2021-02-28.pdf)

### Sahapedia Heritage Documentation Workshop

August 2019 | New Delhi

*Sahapedia* is a digital repository of the arts, culture and history of India. Its digital workshops provide a platform to discuss approaches and models to increase public participation for documentation and conservation of heritage. Moulshri Joshi delivered a lecture on 'Modern and Industrial Heritage Spaces' as part of the Sahapedia workshop.

<https://www.spacematters.in/sahapedia-heritage-documentation>

### Railways of the Future

March 5-6, 2022 | Online

The 2<sup>nd</sup> global conference by and for the Rail Enthusiasts was a two day conference held on the online platform with eminent speakers from all around the world like Achal Khare, Adrian Shooter, Dr. Bibek Debroy, Dale Budd, Jitendra Sondhi, Nanduri Srinivas, Rajeev Chanan, Sudhanshu Mani, Dr. Sujatha Narayan, Tilak Raj Seth, Dr. Toshiji Takatsu and Vijay Raina. The conference ended with a panel discussion on the Future of the Railways.

<https://www.railenthusiastindia.org.in/conference.html>

### Industrial Heritage in India - Lecture Series

November 2021 | Online

ICOMOS India NSC-Industrial Heritage has been conducting a lecture series on 'Industrial Heritage in India: Knowledge, Condition and Significance II', in association with NSC- Documentation, NSC-20C Heritage and Emerging Professionals Working Group. The lecture aims to discuss the production of industrial heritage in Asia. Scholars and heritage practitioners unpack the challenges of definition and documentation while reflecting on what might be a shared Asian experience.

### Public Consultation National Webinar

May 2021 | Online

It was held by *IRSDC* on Codes for Station Redevelopment, Transforming Railway Stations and Codes for Railway Heritage Assets. Focussed group discussion was held on June 14, 2021 and attended by eminent heritage professionals who discussed their works.

<http://irsdc.in/public-consultation>

### International Conference on Indian Business & Economic History

Aug. 2019 & Aug. 2021 | IIM Ahmedabad

The conference provided a forum for leading scholars across the globe to present research papers and a doctoral research workshop for PhD Scholars.

<https://conference.iima.ac.in/history/>

Heritage Tour, Kolkata

Since 2018 | Kolkata

The *Kolkata Port Trust* has been conducting the heritage tour, ‘A voyage through Tide and Time’ since 2018. The tour takes you back to the time when the riverine port was used to anchor ships and how the city grew along this trading port.



Image82. View of the heritage tour on Hoogly River, Kolkata

Railway Heritage Seminar

April 2022 | Kolkata

South Eastern Railway organised a seminar on the theme ‘Railway Heritage and Climate Change’ as part of the week long celebration of World Heritage Day.

The existing guidelines and policies of the Ministry of Railway to preserve the heritage and legacy of the Indian Railways was discussed, along with the need to create awareness for preserving these heritage structures.

A Heritage Walk by Bespoke Art Unique Legacies (BAUL)

November 2021 | Kolkata

A heritage walk to the various industrial heritage museums in Kolkata was organised by *BAUL*. These included the *RBI Museum*, *Kolkata Port Maritime Heritage Centre*, structures that functioned as the *Alliance Bank of Simla* before Reserve Bank of India was set up in 1935 and many other structures. These walks help generate awareness among the people, of the rich cultural and industrial heritage of the city.

Festival of Children’s Literature at the Delhi National Rail Museum

November 27-28, 2021 | Delhi

A two day long children’s literary festival and book fair was organised on 27-28 November 2021 by

# Heritage tours to museums give a peek into city’s industrial history

TIMES NEWS NETWORK

**Kolkata:** Did you know that the first governor of the Reserve Bank of India’s office was in Dalhousie? Or that Bengali cinema superstar Uttam Kumar worked as a cash clerk at Kolkata Port Trust from 1946-47 till the release of the 1952 movie ‘Basu Paribar’?

These are among the nuggets of history that visitors to the RBI Museum at 8 Council House Street and the Kolkata Port Maritime Heritage Centre at the Fairlie Warehouse on 6 Strand Road got to know during a visit to various industrial heritage museums in the city. The walk was organised by Bespoke Art & Unique Legacies (BAUL), an organisation that organises unique heritage tours and awareness programmes on the city’s heritage buildings.

The Kolkata Port Maritime Heritage Centre housed in one of the four red brick warehouses built between 1901 and 1903 has artefacts, memorabilia, archival material and navigational items that date



back to the late 18th century including how huge tracts of land in the city of Kolkata were vested with KoPT.

“Kolkata Port may not be hogging the limelight today but it was the key to Kolkata emerging as a metropolis. The museum has inspection log books on the Southern lighthouse at the confluence of the river and the sea that are dated around the 1770s,” KoPT advisor and heritage researcher Gautam Chakraborty said.

Less than a kilometre away is another

red brick building on Council House Street that was constructed in 1892. “We inaugurated the RBI Museum here in 2019. But not many have been able to view the panels and research materials owing to Covid restrictions,” said RBI Kolkata general manager and museum in-charge Siddhoswatto Ghosh.

The museum houses a replica of the RBI’s gold vault in Nagpur and various locks to bank vaults that have evolved over the years.

(Left) The RBI Museum and (Above) Artefacts on display at Kolkata Port Maritime Heritage Centre

Image83. The Time of India news report on the heritage walk in Kolkata covering the Reserve Bank of India and Port Trust lands



Bookaroo, Festival of Children's Literature at the National Rail Museum, Delhi. The festival included storytelling, workshops, poetry, art and craft, and books, and also gave attention to the Rail Museum in the capital city of India, New Delhi.



Image84. Festival of Children's Literature at the National Rail Museum, Delhi

**The Photography Exhibition - Kolkata**

September 2021 | Kolkata

The photography exhibition was held in September 2021 in Calcutta Trams by the Italian Cultural Center. The Consulate General of Italy in Kolkata, in collaboration with the West Bengal Transport Corporation, hosted a week long photo exhibition in Kolkata. Titled *'From Kolkata to Italy – Of Places in Dialogue'*, the exhibition was set inside the coaches of Kolkata tram and focussed on the interconnection between Italy and Kolkata, capturing the essence of a moving art gallery. The exhibition was inaugurated at the Esplanade Tram Depot, from where the first

ever electric tram in Asia was operated in 1900 and the artefact displayed was a horse pulled tram, a part of the heritage of the city.

**'Gateway to History' - A Photo Exhibition**

May 2022 | Mumbai

The Mumbai Port Authority recently organised a week long photo exhibition *'Gateway to History'* in May 2022, showcasing the defining moments in the history of the Mumbai Port, India's freedom struggle and its development. The Mumbai Port has been the most important gateway to India and has played a pivotal role in the development of the trade and commerce and economy of the country.

**Black Coal/ White Cube - Panel Discussion**

July 16, 2022 | Bangalore

*'Black Coal/ White Cube'*, a panel discussion exploring the confluence of art, labour and the mining industry was held on 16th July, 2022 at the Bangalore International Centre. The discussion ranged from the contribution of the mining industry in modern industrialisation to the irreversible damage it has caused to the environment. This programme was funded by the *"Connections Through Culture: India-Wales"* grant scheme by the British Council, supported by Wales Arts International/Arts Council of Wales.



Image85. Glimpses of the photography exhibition held in the Calcutta trams

## Online symposium on 'Industrial Heritage and Shipbuilding'

September 30, 2021 | Online

The online symposium on 'Industrial Heritage and Shipbuilding' was organised at Indira Gandhi National Centre for the Arts (IGNCA) on 30 September, 2021 on the occasion of World Maritime Day as part of the Project Mausam, a Ministry of Culture, Government of India initiative. The talks included industrial heritage of coastal Kutch, shipbuilding technology and other related heritage aspects of shipbuilding.

Website : [https://web.facebook.com/events/d41d8cd9/online-symposium-on-industrial-heritage-and-shipbuilding/254047999934991/?\\_rdc=1&\\_rdr](https://web.facebook.com/events/d41d8cd9/online-symposium-on-industrial-heritage-and-shipbuilding/254047999934991/?_rdc=1&_rdr)

## Kochi-Muziris Biennale 2022

December 2022- April 2023 | Kochi

The Kochi-Muziris Biennale 2022 is all set to happen at the old trading port of *Muziris* that dates back to 1st century BCE. Established in 1928, the present-day *Kochi port* is a major port on the Arabian Sea - Laccadive Sea - Indian Ocean sea-route. Kochi has been a multi-cultural city since pre-colonial period and this nature continues to flourish. The Kochi-Muziris Biennale 2022 is an international art exhibition that brings forth the cultural history of the Indians, along with the 'local traditions, practices and discourses that are shaping the idea of India'.

Website - <https://kochimuzirisbiennale.org/>



Image86. Aspinwall House, the main venue of Kochi-Muziris Biennale 2022

## Painting exhibition to celebrate 75 years of Indian Independence

May 2021 | Mumbai

As part of an exhibition to celebrate 75 years of Indian Independence, a painting exhibition was held in May

2021 on the struggle of *Mumbai Port Trust (MbPT)* workers and freedom activists against the British Raj. Paintings by Sonali Iyenger and photographs were displayed at the Gateway of India in Mumbai representing the repression of the port workers who were also freedom activists that have shaped the idea of India.



Image87. Painting exhibition on the struggle of Mumbai Port Trust (MbPT) workers at the Gateway of India

## Puducherry's Maritime History Exhibition

December 2021 | Arikamedu

Puducherry's maritime history was showcased in December 2021 at the Greco-Roman trading centre of *Arikamedu*. The government plans to set up a museum at *Arikamedu*, around six kilometers from Puducherry. It will display the artifacts found on the site through excavation, throwing light on the maritime history of the place and South India. Arikamedu had trade links with Rome and other parts of Europe between the 2nd century BCE and the 8th century CE.

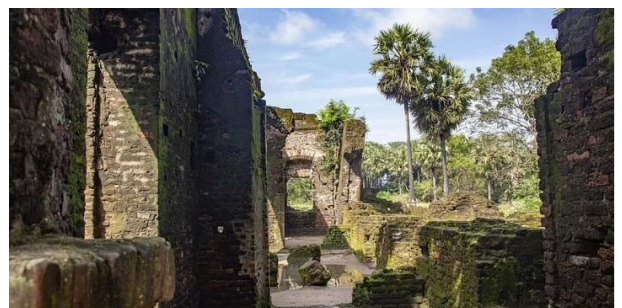


Image88. View of the archeological site at Arikamedu



## 5.3 Online Initiatives

### Industrial Heritage in India

The members of *NSC-IH of ICOMOS India* maintain an active page on Facebook, devoted to the industrial heritage sites in India. The page includes intensive documentation of India's industrial, technological, scientific, mercantile and engineering heritage.

Website: <https://www.facebook.com/Industrialheritageinindia/>



Image89. Facebook page for Industrial Heritage in India

### Live History India (LHI)

Live History India has an online portal that brings together stories about India including the historical aspects of the country, generating awareness on the rich heritage as well as the need to safeguard it. They operate across various mediums like articles, virtual tours, live programmes with leading experts.

Since 2017, they have been mapping India's heritage. They also have an e-commerce site, *Peepul Tree*, to help artisans connect to the global buyers. They have published various articles on the industrial heritage of India including the recently demolished Patna Collectorate, Kallanai Dam in Tamil Nadu - one of the oldest water regulating structures still in use, works of the Geologist, Robert Bruce Foote, who discovered the early Acheulean stone tools in India, film on the birth of Tata Steel, regarded as a marker of a new phase of the growth of Indian industry and many more aspects of the industrial heritage of India.

Website: <https://www.livehistoryindia.com/>

### Godrej Archives

It is a Mumbai based business archive that collects, preserves and manages records covering 125 years of the company's history. In order to generate awareness of the historical aspects, the Archives conduct outreach activities including exhibitions, talks, lectures, media articles, online and offline publications, induction sessions of employees, visits by external experts etc. Their latest outreach initiative is a series of bi-monthly online talks titled '#ThursdayTalk' on timber trade, global merchants and other similar topics.

Website: <https://archives.godrej.com/>



Image90. Poster for a talk by Dr. Rodrigues for Godrej Archives

### Art Deco Mumbai

It is a team that has initiated work focussing on Mumbai's Art Deco, including advocacy for its conservation, generating awareness of its history as well as photo documentation of its heritage. As part of the initiative, a digital repository has been prepared in the form of an interactive map with the art deco buildings in Mumbai mapped. It is an ongoing project and new structures are being added by locals and experts. Lately, *Art Deco Mumbai* has released a short film on Liberty Cinema, one of the iconic building in Mumbai.

Website: [www.artdecomumbai.com](http://www.artdecomumbai.com)

## Rajendra B. Aklekar

He is a journalist, author and a railway enthusiast. He has written numerous books on the railway history, heritage and trains of India. He is also a regular columnist with England's rail website 'RailTube' and an occasional contributor to the Indian media websites like Scroll and the Wire. He has contributed significantly in setting up the Rail Heritage Gallery at the Chhatrapati Shivaji Terminus station in Mumbai.

<https://rajendrabaklekar.com/>

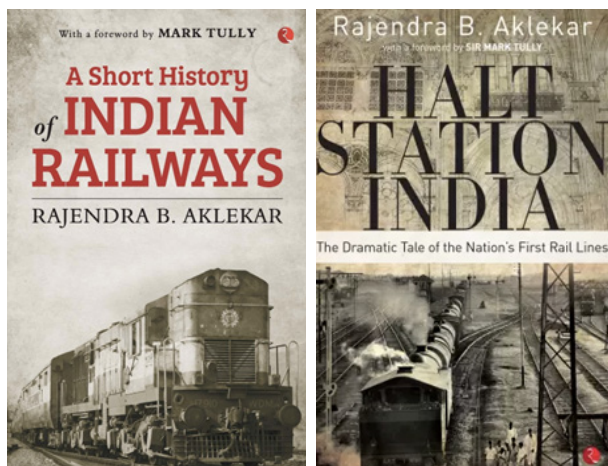


Image91. Books by Rajendra B Aklekar

## PARI Network

People's Archive of Rural India (PARI) is a journalism website cataloguing stories from rural India. It is both a living journal and an archive. It hosts videos, photographs, audios and text archives of the lives and livelihoods of the everyday Indians. It records the conversations, songs and poetry in the local language and also focusses on education and learning.

<https://ruralindiaonline.org/>

## Monthly talks by the Rail Enthusiasts Society (RES)

RES organises virtual monthly talk on the third Sunday of every month at 11.00 am IST. On 20th February 2022, a talk by Manoj Pande, a member of the *Rail Enthusiasts' Society*, was delivered virtually on 'The Nizzy Pays for All'. It covered the history of the Nizams Guaranteed State Railway and talked about the construction of the railway and its successful operations.

[www.railenthusiastindia.org.in](http://www.railenthusiastindia.org.in)



Image92. Archival image from the talk by Mr. JL Singh on 'Jamalpur: A Cradle of Mechanical Engineering'

## Kolkata Port Heritage Initiative

The Kolkata Port Heritage Initiative's @HeritageKolPort is a portal to showcase the heritage of Kolkata Port, the oldest and the only riverine port in India.

<https://www.facebook.com/kolkataport.heritageinitiative>



Image93. Kolkata port initiative at the National Republic Day parade 2020

## Google Arts & Culture – Indian Railways

Google Arts & Culture, in association with the Indian Railways presents an online platform telling stories of over 150 years of Indian railways. It explores the railways of India through stories and virtual tours. It provides information on heritage structures like railway stations, bridges, historic railway lines, heritage coaches and locomotives, artefacts and explored the impact of railways on the art and culture.

<https://artsandculture.google.com/project/indian-railways>





Image94. Google Arts and Culture page on Indian Railways

### Jugaadopolis

It is an initiative by Aishwarya Tipnis Architects to get a sense of the city by exploring, understanding and appreciating heritage and culture of a city and making it relevant to the new generation. Its initiative on Indian Industrial Heritage attempts to understand what industrial heritage means in an Indian context. A map of the tangible and intangible heritage of India has been co-created with collaboration along with its illustrative timeline.

Website: <https://jugaadopolis.com/>

### Immersive Trails

This company deals in providing immersive travel experiences, virtual as well as in person. They, along with a team of scholars and researchers in the field of archaeology, architecture and conservation, curate and aid in creating experiences for people from all over the world, of the places of interest. Their upcoming trails include 'Calcutta in World War II' and the 'Calcutta Business Houses'.

Website: <https://www.immersivetrails.com>

### Khaki Tours

Khaki Tours, founded by Bharat Gothoskar in 2015, is an online platform to generate awareness about Mumbai's history and heritage. It covers areas like Parel, Lalbaug, Gamdevi, Bhuleshwar and Chowpatty, which are generally not associated with heritage. In 2016, it launched #UrbanSafari, open

jeep tours showcasing the city's heritage buildings and architecture. It also has food walks, cruises, day tours, themed tours (26/11 Attacks, Art Deco, etc.) and kids' workshops. In 2018, the *Khaki Heritage Foundation (KHF)* was formed with the aim to conserve, archive and generate awareness about the heritage in Mumbai and beyond.

Website: <https://khakitours.com/>



Image95. Photograph of Khakhi tours at Mumbai

5.4 Industrial Heritage in Mass Media and Cinema

Cinema and industrial heritage is deep-rooted with not just the depiction or usage of iconic structures as backgrounds and sets, but also showcasing of the industrial process, the life of people involved in the industry and the progression in cinema. Even the first screening of movies in India has a connection with industrial heritage. In the year 1896, the first movie was screened in India at the Watson Hotel or Esplanade Mansion, Bombay (Mumbai).

There is a specific presence of industrial heritage on mass media. *'Pather Panchali'*, an iconic movie by Satyajit Ray, showcases the train as a powerful symbol of memory of the characters in the movie. The Oscar winning biopic movie *'Gandhi'* has been shot in the Patna Collectorate building. Lately, movies like *'KGF - Kolar Gold Fields'* sets a 'scarface-like' revenge story within the confines of an gold mining canvas, bringing together the relationships of industry, mining and power in one single mix, similar to the 2013 gangster opus *'Gangs of Wasseypur'* which took coal, steel and indegenious weapons as a magnet.



Image96. Poster of the movie 'Pather Panchali'



Image97. First poster of the movie 'KGF' aka Kolar Gold Fields.



## 06 | Editorial Team



### Moulshri Joshi

Moulshri Joshi is an architect and teacher leading the award-winning design practice Space Matters based in New Delhi. She has taught architectural design and theory for over a decade at the School of Planning & Architecture, New Delhi – also her alma mater - and has been a visiting faculty at the Urban Ecological Planning program at Norwegian University of Science and Technology (NTNU) Norway.

From safety audits of mohallas where children walk to school in Delhi to the conservation of the contaminated factory site of the Bhopal Gas Tragedy, her architectural expertise lies in curating complex, multi-stakeholder projects through an empathetic and interdisciplinary approach and in tackling exceptional and everyday issues. More at [www.spacematters.in](http://www.spacematters.in)

Since 2005, Moulshri has worked in the field of Industrial Heritage with a focus on conservation and remediation of the former Union Carbide factory at Bhopal. She is the editor of the Inventory of Industrial heritage in India – a privately supported documentation initiative that has mapped 400+ industrial sites across the country. She is the Associate Editor of the book 'Bhopal2011 – Landscapes of Memory' and has trained at the Swedish Environmental Protection Agency on 'Risk Assessment of Contaminated Sites'.

Moulshri is member of the Board at The International Committee for the Conservation of Industrial Heritage (TICCIH) and is the coordinator of National Scientific Committee on Industrial Heritage (NSC-IH), ICOMOS India. She serves as an Advisory Board member at the Asian Network of Industrial Heritage (ANIH) and is and Expert Member on zoo design to Ministry of Climate Change, Environments & Forests, Government of India.

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### Somya Johri

Somya Johri is a conservation architect from School of Planning and Architecture, New Delhi, currently based in Accra, Ghana. She has been involved with conservation projects in India and preparation of nomination dossiers for World Heritage sites in India. Having interest in industrial heritage, she has presented and published her work on various national and international platforms, and is currently working as Assistant Editor for 'Context: Built, Living and Natural', annual refereed journal by DRONAH.

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### Nivia Jain

Nivia Jain is an architect and an experience designer. After studying architecture from School of Planning and Architecture, New Delhi, she went on to do Master's in Information Design from the National Institute of Design, Bangalore. Her key strengths lie in visual design and communication. She is a crusader of all things sustainable and is also a LEED AP and WELL AP.

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### **Athira TP**

Athira TP is a Conservation Architect with a strong interest in colonial, modern and industrial heritage. She has completed her Bachelors in Architecture from NIT Calicut in 2019 and Masters in Architectural Conservation from SPA Bhopal in 2021. She has previously worked with various organizations in the field of heritage conservation in India such as INTACH Bengaluru and Delhi chapters, World Monuments Fund (WMF), Cultural Resource Conservation Initiative (CRCI) , SpaceMatters and the Heritage Cell for the World Heritage city of Jaipur, Rajasthan, where she was exposed to various projects of documentation, heritage mapping and listing, repair and restoration, renovation, outreach events, research and World Heritage management.

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### **Vishnu K Suresh**

Vishnu K Suresh is a conservation architect, from Kochi, Kerala. He has been engaged in research and coordinating documentation projects at INTACH Maharashtra, which dealt with Cultural Assets of Godavari River, and currently engaged in research with ICOMOS India as well. He is closely associated with SpaceMatters, Delhi, working with Ar. Moulshri Joshi with a focus in Industrial Heritage. He has a keen interest in cultural landscapes, human and historic geography, euhmeristic expression of landscapes of Indian cosmogeny, and expression of urbanism in literature and cinema - which resulted in a fiction novel titled 'A City of Blood and Steel'. He has worked as an Assistant professor at Kochi and Pune. Currently, he is engaged in PhD research at SPA Bhopal.

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