



# HERITAGE WORK

DBS ENGINEERS PVT. LTD.





## DBS Engineers - Introduction

At DBS Engineers, we believe that every building tells a story, and for over number of years, we have been privileged to be the storytellers of countless commercial, residential, and industrial projects. As a premier construction company based in Lucknow, our mission is to bring architectural visions to life with precision, integrity, and a commitment to excellence.



## Our Beginnings

Founded in (year), DBS Engineers started as a small, family-owned business. Over the decades, we have grown into a trusted name in the industry, known for our dedication to quality and our unwavering client focus. Our journey has been one of continuous learning, innovation, and adaptation to the latest construction techniques and technologies.



## ABOUT US

## Our Team



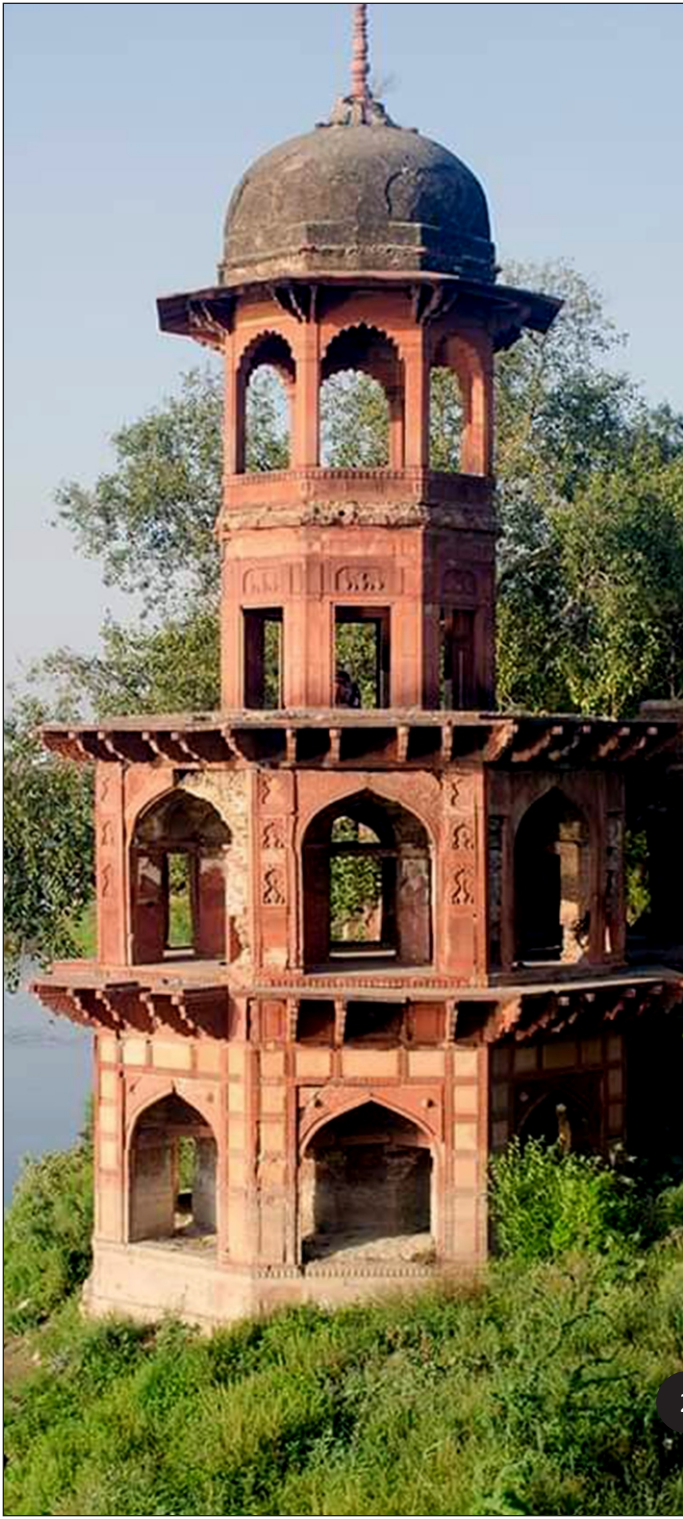
Our greatest asset is our team of professionals. From seasoned architects and engineers to skilled laborers and project managers, each member of the (DBS Engineers) Construction family brings expertise, passion, and dedication to their work. We foster a collaborative environment that encourages creativity and promotes professional growth.

## Our Promise



At (DBS Engineers) Construction, we don't just build structures; we build relationships.

Our promise is to deliver projects that reflect the unique aspirations and needs of our clients. Whether it's a dream home, a bustling commercial hub, or a state-of-the-art industrial facility, we are here to bring your vision to life with precision and care.



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## OUR BEGINNINGS

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# OUR EXPERTISE

Heritage work typically involves the identification, preservation, conservation, and promotion of historical sites, artifacts, and intangible cultural heritage.

## **ARCHAEOLOGISTS -**

They excavate and study ancient sites and artifacts to understand past.

## **HISTORIANS -**

They research and analyze historical events, documents, and records to inform the understanding of heritage sites.

## **CONSERVATION SPECIALISTS -**

They are skilled in the science and techniques required to preserve and restore artifacts, buildings, and other physical objects.

## **MUSEUM CURATORS -**

They manage collections of artifacts, developing exhibitions and educational programs to engage the public.

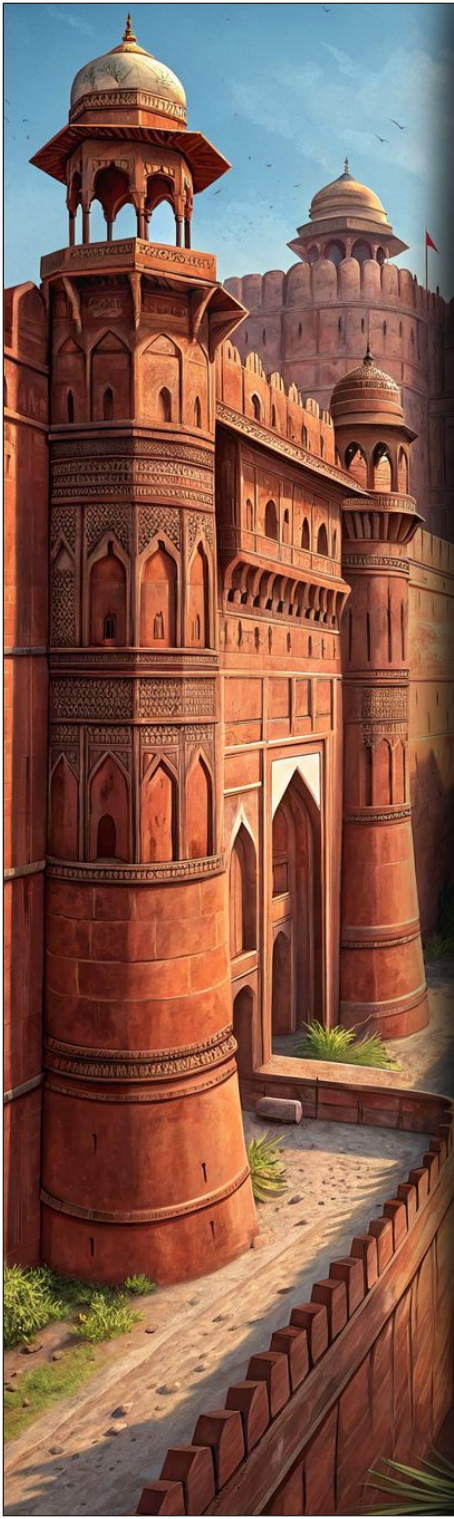
## **URBAN PLANNERS AND ARCHITECTS -**

They work on the integration of historical sites within modern urban environments, balancing preservation with contemporary needs.

## **CULTURAL RESOURCE MANAGERS -**

They develop policies and strategies for the protection and promotion of cultural heritage.

*Thank you for considering DBS Engineers Pvt. Ltd. We are excited to be your partner in creating extraordinary spaces that inspire and endure.*



## OUR VALUES

Heritage values encapsulate the significance of cultural and natural heritage, contributing to our understanding of identity, history, and community. Here's a breakdown of key heritage values.

**QUALITY:** We are committed to delivering superior craftsmanship and using the finest materials.

**INTEGRITY:** Honesty and transparency are the cornerstones of our business relationships.

**INNOVATION:** We embrace new technologies and innovative building techniques to stay ahead of industry trends.

**SUSTAINABILITY:** We prioritize eco-friendly practices and materials to minimize our environmental footprint.

**CLIENT SATISFACTION:** Our clients are at the heart of everything we do. We strive to exceed their expectations at every stage of the project.

## OUR VISION FOR THE FUTURE

As we look to the future, we remain committed to pushing the boundaries of what's possible in construction. We envision a world where every project, big or small, is a testament to our dedication to excellence and our passion for building better communities.

# CONDUCTING A SURVEY OF A MONUMENT

Conducting a survey of a monument is a detailed process that involves documenting and analyzing the physical and historical aspects of the structure. Here's a step-by-step guide to help you understand and perform this task effectively.





## PRELIMINARY RESEARCH

Before heading to the site, gather as much information as possible about the monument. This includes its history, cultural significance, previous studies, and any existing documentation.

## SITE VISIT PREPARATION

Equip yourself with the necessary tools:

Measuring Instruments: Total stations, theodolites, laser distance meters, measuring tapes.

Photographic Equipment: Cameras, drones for aerial views, tripods.

Documentation Supplies: Notebooks, sketch pads, pens, tablets or laptops for digital note-taking.

Personal Safety Gear: Helmets, gloves, and other protective gear.

## ON-SITE SURVEY AND DATA COLLECTION

When you arrive at the monument site:

**Photograph the Monument:** Capture the monument from multiple angles and its surroundings to provide a comprehensive visual record. **Take Measurements:** Measure lengths, widths, heights, and distances between different parts of the structure. Use the appropriate measuring instruments for precise data.

**Detailed Notes:** Document any notable features like inscriptions, carvings, damages, or restorations. Note the materials used and their current condition.



## MAPPING AND SKETCHING

Create detailed sketches or maps of the monument. This could be done by hand or digitally using CAD (Computer-Aided Design) software. A precise map will help in visualizing the monument's layout and structure.



## ENVIRONMENTAL ASSESSMENT

Evaluate the surrounding environment. This includes analyzing factors Environmental Assessment like vegetation, topographical features, and potential sources of damage (e.g., pollution, water accumulation, human activity).

## DATA ANALYSIS

- Analyze the collected data to identify:
- Structural Integrity: Look for signs of wear, damage, and structural weaknesses.
  - Historical Changes: Compare current conditions with historical records to understand transformations over time.
  - Conservation Needs: Assess the need for preservation, restoration, or conservation efforts.

## REPORTING

- Compile all findings into a comprehensive report that includes:
  - Detailed maps and sketches
  - Measurement data
  - Photographs
  - Analysis and observations
  - Recommendations for conservation

## STAKEHOLDER ENGAGEMENT

- Engage with local authorities, historians, architects, and the community. Share your findings and collaborate to develop actionable plans for the monument's upkeep and preservation.

## FINAL THOUGHTS

- Surveying a monument is a meticulous process that combines historical research, precise measurement, and careful documentation. It serves as a fundamental step towards preserving our cultural heritage and ensuring these historical treasures are passed on to future generations.





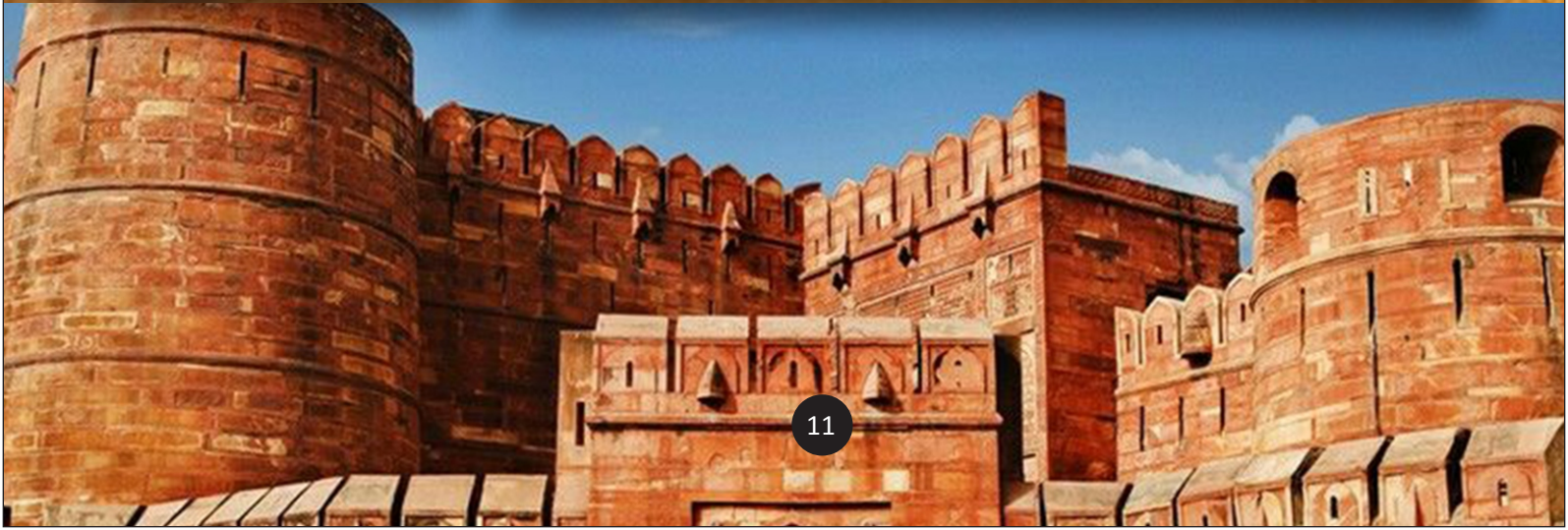
## SURKHI WORK

Surkhi, also known as brick dust, is a material obtained by crushing and grinding burnt bricks or clay balls. It serves as an essential component in traditional construction and plays a significant role in strengthening and enhancing the properties of mortar and concrete. Here's an overview of what entails working in a surkhi manufacturing plant.



## RAW MATERIAL SELECTION

**Burnt Bricks/Clay:** Surkhi is made from burnt bricks, brickbats, or burnt clay. It is important to use bricks that have been thoroughly burnt to achieve the desired properties. Under-burnt or over-burnt bricks should be avoided as they can affect the quality. **Clay Balls and Lime:** Occasionally, small clay balls mixed with quick lime are burnt to improve quality.



## GRINDING PROCESS

- Preparing the Bricks: The bricks or clay balls are first broken down into smaller pieces.
- Grinding: These pieces are then ground into a fine powder, usually using a mortar mill or similar grinding machinery. The fineness of the powder is crucial as it influences the hydraulic properties of the surkhi.

## QUALITY CONTROL

- Particle Size Distribution: The ground surkhi must be fine enough to pass through an IS No. 9 sieve, with a residue of not more than 10% by weight.
- Mixing with Lime: Surkhi is often mixed with lime to enhance its properties. This mixture needs to be well blended to ensure uniformity.

## APPLICATIONS

- Concrete and Mortar: Surkhi is added to lime or Portland cement to increase compressive strength, durability, and hydraulic properties. It is especially useful in regions where sand is scarce.
- Waterproofing: Used in waterproofing treatments, surkhi helps in making structures more resistant to water seepage.
- Plastering: Surkhi can be used in mortar for plastering, although it isn't suitable for external plaster exposed to weathering conditions.

# SUSTAINABILITY AND ECONOMIC ADVANTAGES

- Cost-Effective: Utilizing locally sourced burnt bricks for surkhi production is more economical compared to other materials.
- Environment-Friendly: By recycling burnt bricks, surkhi production promotes sustainable construction practices.

# FINAL THOUGHTS

Working in a surkhi plant involves processes that focus on quality control and precise grinding to ensure the material meets the required standards. Its versatility and affordability make surkhi a valuable addition in various construction applications, particularly in traditional and heritage



# THE ESSENCE OF HERITAGE BUILDING CONSERVATION

Heritage buildings are crucial pillars of cultural history and architecture. These structures reveal the stories and lifestyles of previous generations, and preserving them offers invaluable cultural, educational, and aesthetic benefits. The goal of heritage conservation is to maintain and restore these buildings, making sure that their historical value and architectural integrity are preserved for future generations.



## KEY COMPONENTS:

**Research and Documentation:** Thoroughly investigating the building's history, architecture, and previous restoration work.

**Condition Assessment:** Evaluating the current state of the building to identify issues and prioritize repairs.

**Material Analysis:** Understanding the materials used in the original construction allows for accurate restoration and compatibility with modern techniques.

**Restoration Planning:**

Creating a detailed plan that outlines all the necessary restoration steps, including budgeting and time lines.

**Conservation Practices:**

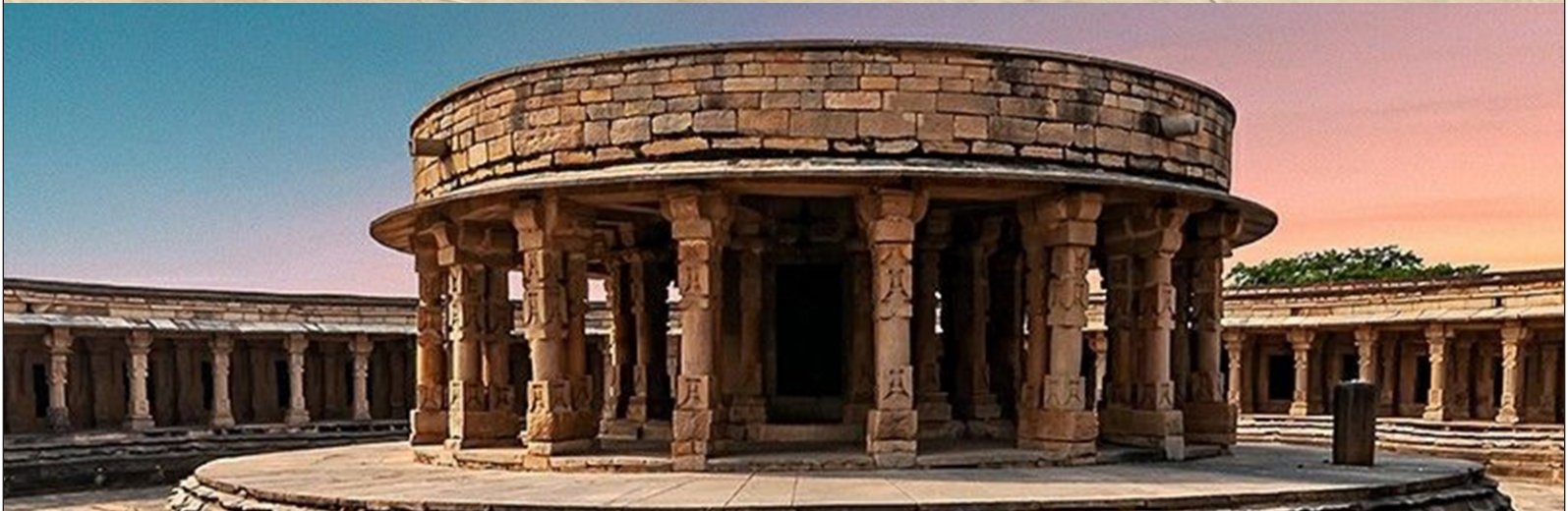
Implementing the plan using techniques that preserve as much of the original structure and materials as possible.

**Sustainability:**

Ensuring that the restoration methods and materials used are sustainable and environmentally friendly.

**Community Engagement:**

Involving the local community and stakeholders to foster a sense of ownership and support for the conservation project.



## CHALLENGES AND OPPORTUNITIES

**Technical Challenges:**

Dealing with structural damage, material decay, and previous improper repairs.

**Funding:**

Securing financial resources for large-scale restoration projects.

**Balancing Modernization:**

Integrating modern amenities and safety standards while preserving the historical authenticity.

**Legal Compliance:**

Adhering to heritage laws and regulations specific to the region.

**JOB  
DONE**

# KAJMEN SITE, LUCKNOW

BEFORE



AFTER





**BEFORE**



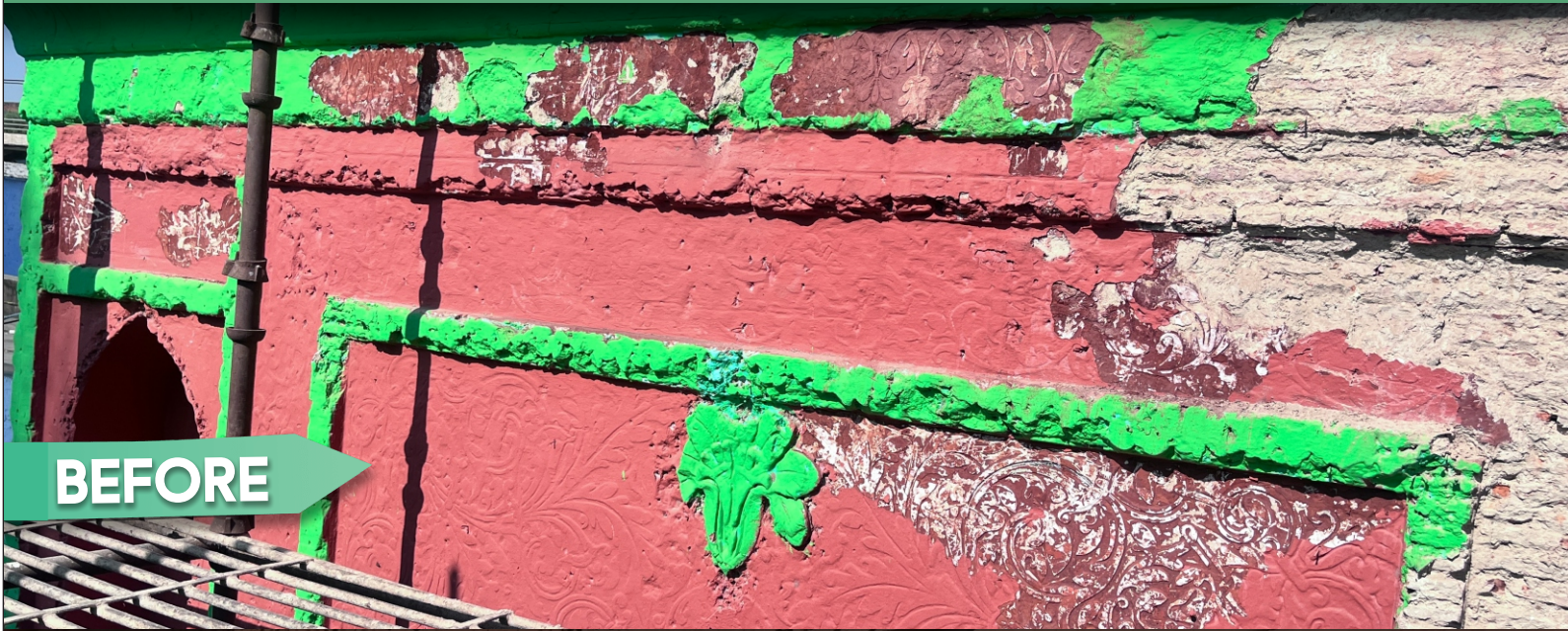
**AFTER**



**BEFORE**



**AFTER**



BEFORE



AFTER



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



# BEGUM KOTHI



BEFORE

A wide-angle photograph of the Begum Kothi in a state of significant disrepair. The building is a long, single-story structure with a flat roof and several arched doorways. The walls are heavily damaged, with large sections of plaster missing, exposing the underlying brickwork. The ground in front is a mix of dirt and sparse green grass. The scene is framed by trees on both sides.



AFTER

The same wide-angle photograph of the Begum Kothi, but now in a state of complete restoration. The building's facade is now a uniform, light-colored plaster, and the arched doorways are clearly defined. The structure appears much more complete and well-maintained. The surrounding area is now a well-kept lawn. A small black circle with the number '25' is visible in the lower center of the image.



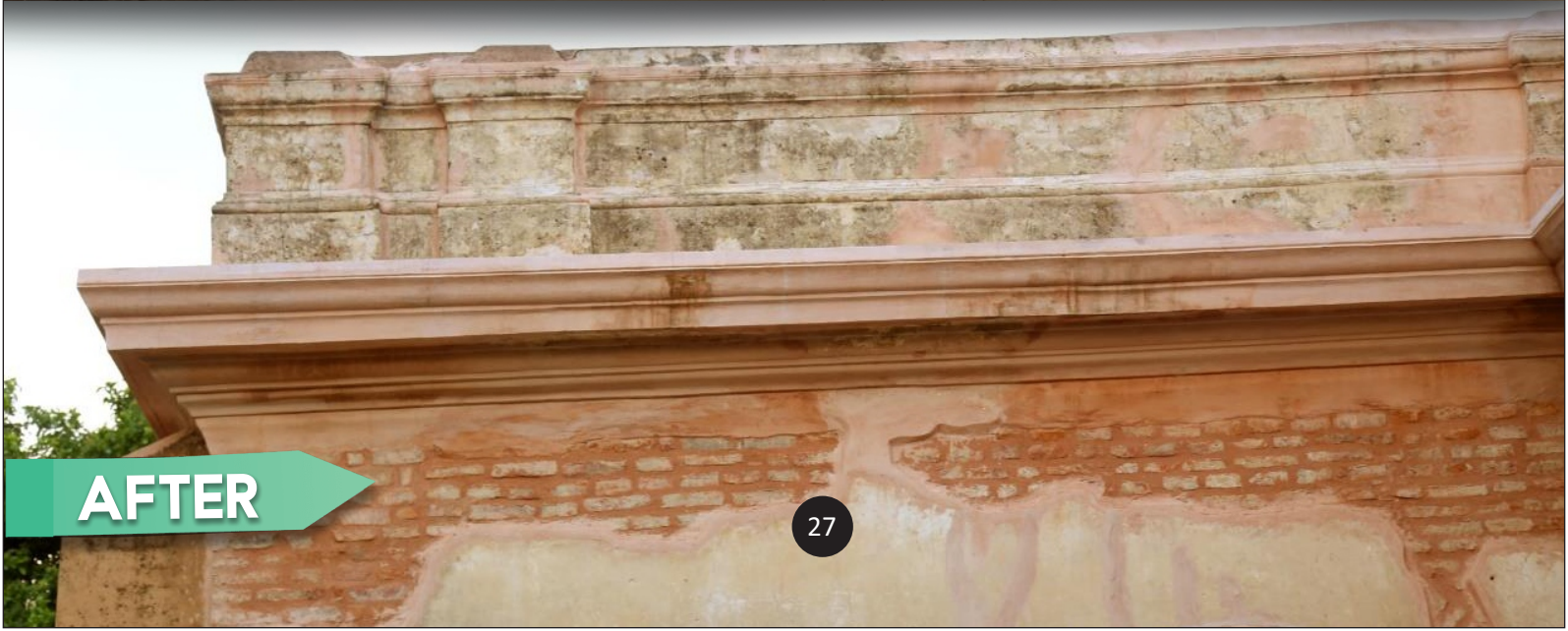
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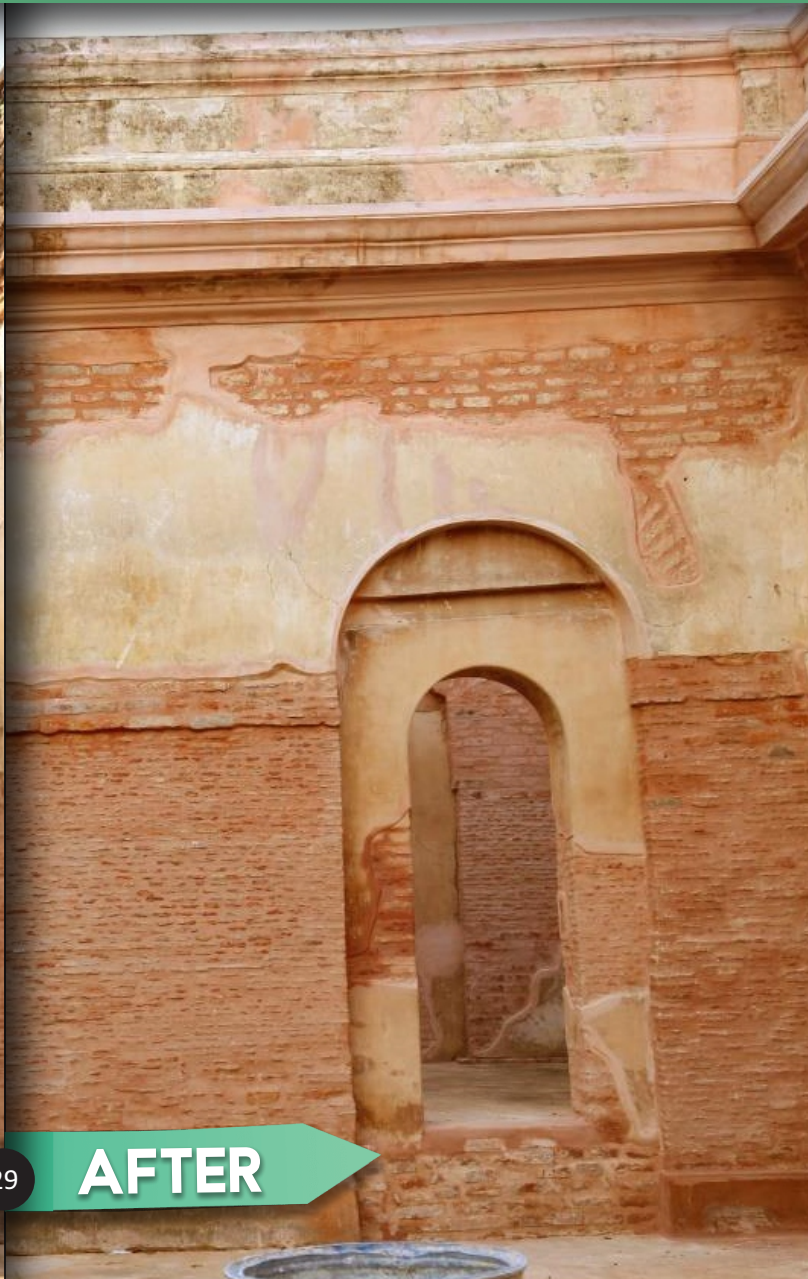


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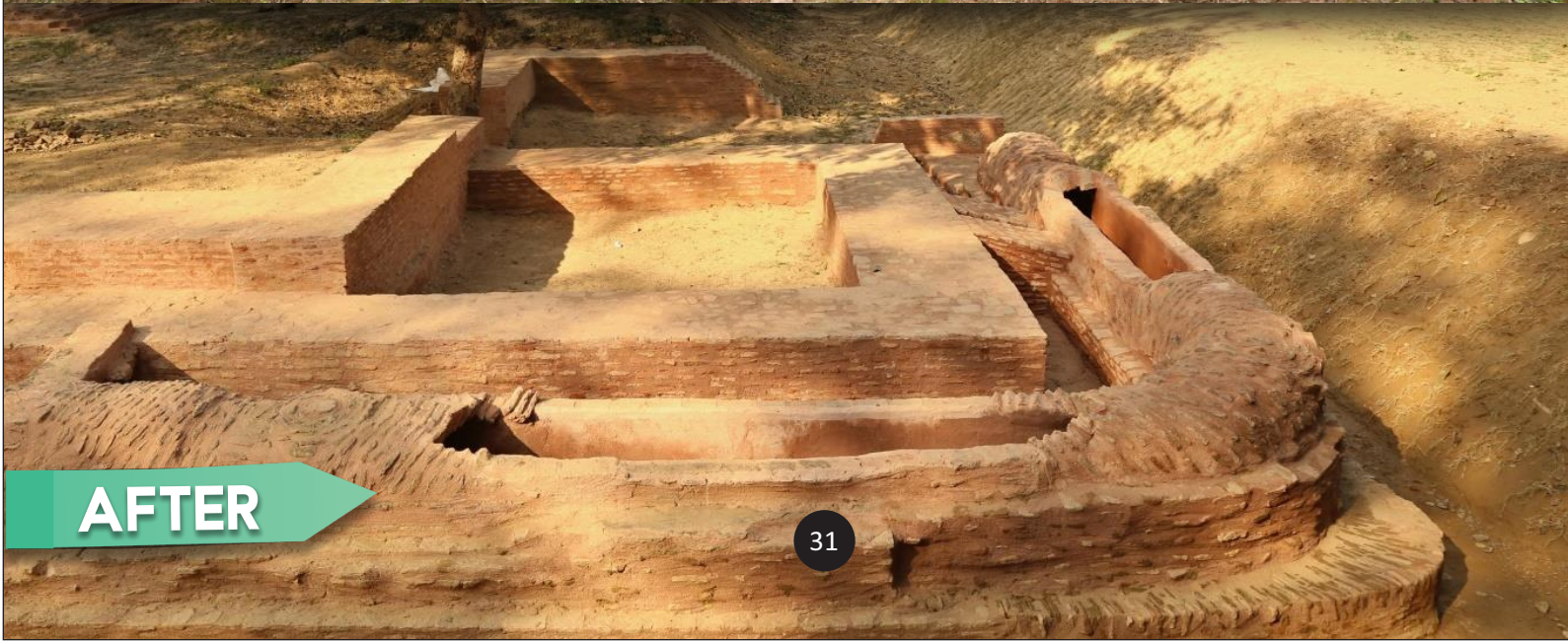
# CONSERVATION WORK AT EXCAVATED AREA RESIDENCY, LUCKNOW



**BEFORE**



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**BEFORE**



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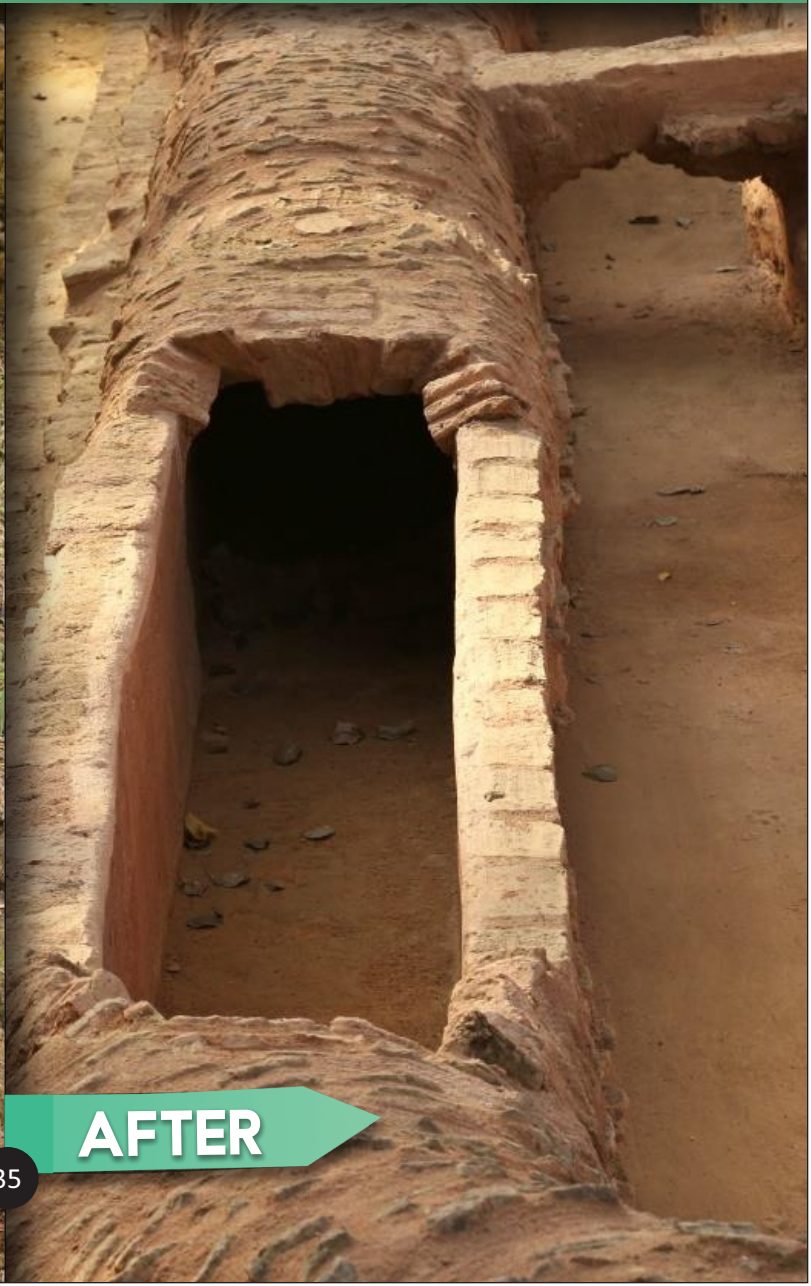
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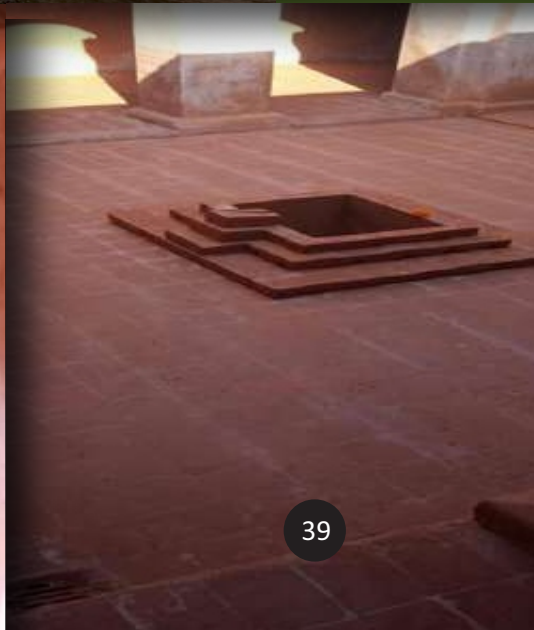
# ANCIENT BRICK TEMPLE AT SIRHAR, FATHEPUR



**BEFORE**



**AFTER**



# KALPI FORT



**BEFORE**



**AFTER**



# KURARI TEMPLE

BEFORE



AFTER

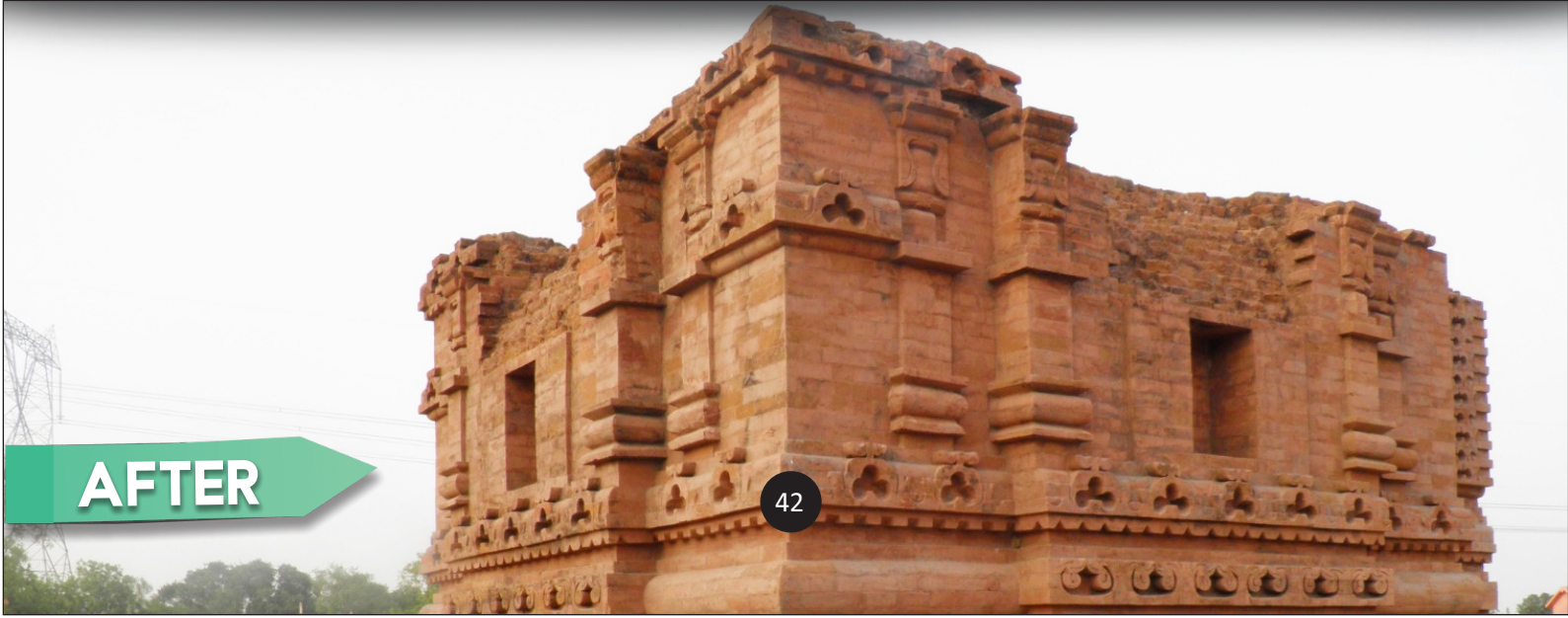


# KURTHA TEMPLE

BEFORE



AFTER



# SMALL DOME KALPI

BEFORE



AFTER



# JAIN TEMPAL - SRAVASTI

BEFORE



AFTER



# TENDULI TEMPLE

BEFORE



AFTER



# NIBIYAKHERA KANPUR DEHAT

BEFORE



AFTER



# BHITARGAON TEMPLE, KANPUR

BEFORE



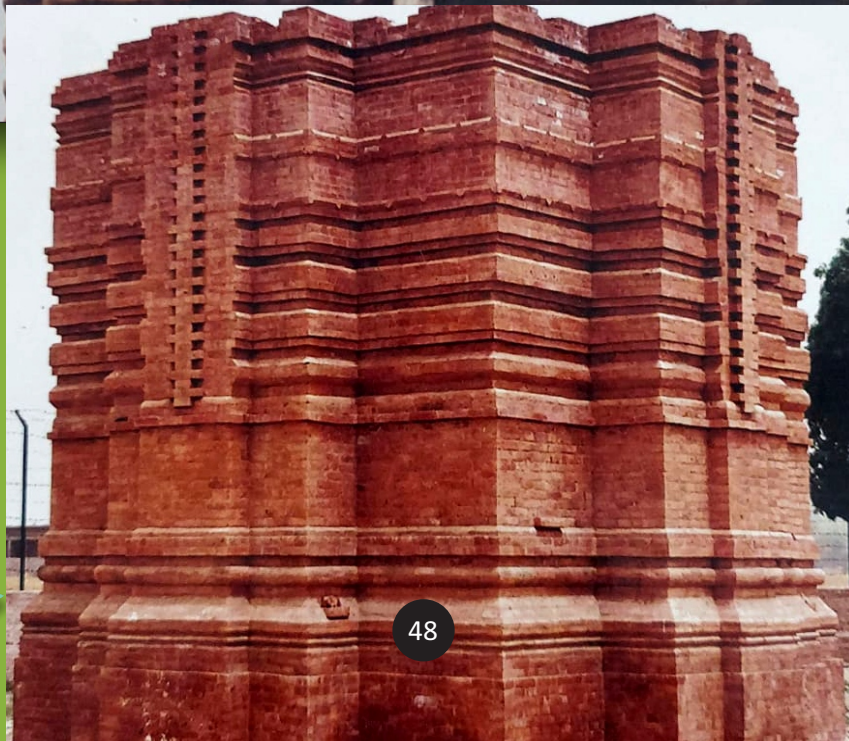
AFTER



# BAHUA TEMPLE, FATEHPUR



**BEFORE**



**AFTER**

# THEETORA TEMPLE

BEFORE



AFTER



# BAHUA TEMPLE

BEFORE



AFTER



# CONSERVATION OF BRITISH CEMETERY AT SULTANPUR, MIRZAPUR



**BEFORE**



**AFTER**



# FORTIFICATION WALL SOUTHERN SIDE AT HETAMPUR FORT, HETAMPUR, DISTT. CHANDAULI



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



**BEFORE**

53



**AFTER**

# CONSERVATION OF ANCIENT WALL IFTEKHAR KHAN'S TOMB, CHUNAR, MIRZAPUR



**BEFORE**



**AFTER**



# STRUCTURAL CONSERVATION AND DEVELOPMENT TOURIST FACILITIES AT EXCAVATED SITE, RAJGHAT



**BEFORE**



**AFTER**

# CONSERVATION OF STONE PILLAR AND MAINTENANCE OF BOUNDARY WALL AT LATHIYA, GHAZIPUR



# STRUCTURAL CONSERVATION OF SOUTH SIDE OF CHAUKHANDI STUPA, VARANASI



BEFORE

A photograph showing the south side of the Chaukhandi Stupa in Varanasi before conservation. The structure is built with reddish-brown bricks and is heavily overgrown with green vegetation. The top of the stupa is a large, rounded, and somewhat eroded mound of brickwork.



AFTER

A photograph showing the south side of the Chaukhandi Stupa in Varanasi after conservation. The structure is built with reddish-brown bricks and is now free of the overgrown vegetation seen in the 'before' image. The top of the stupa is a large, rounded, and somewhat eroded mound of brickwork.



**BEFORE**



**AFTER**



**BEFORE**

59



**AFTER**

22.01.2021 13:49

# CONSERVATION OF PANCHAYATAN TEMPLE AT EXCAVATED SITE, SARNATH

**BEFORE**

This photograph shows the facade of the Panchayatana Temple at Sarnath in a state of significant disrepair. The central section of the wall is missing, leaving a large gap. The remaining stone blocks are uneven, with some missing and others protruding. The intricate carvings on either side of the gap are partially obscured and less distinct due to the damage.

**AFTER**

This photograph shows the same section of the Panchayatana Temple facade after conservation. The central gap has been filled with a smooth, reddish-brown stone block, restoring the wall's integrity. The carvings on either side are now clearly visible and well-preserved. The top of the wall features a decorative frieze with a repeating pattern of stylized leaves or petals. The overall appearance is much more complete and well-maintained.



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



**BEFORE**

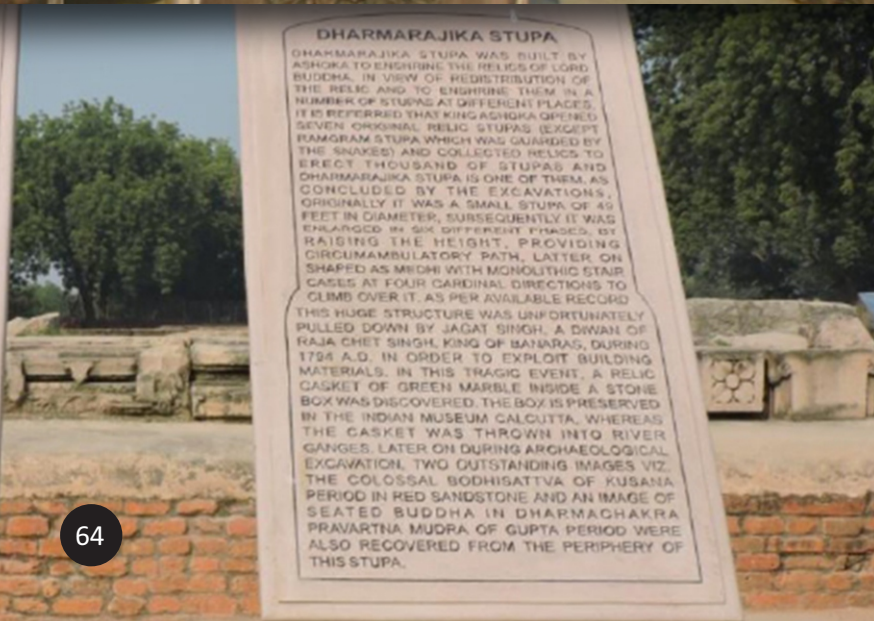
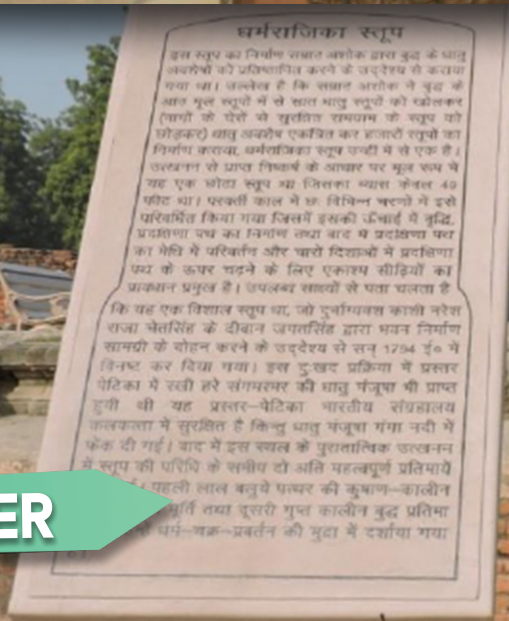


**AFTER**

BEFORE



AFTER



# COMPREHENSIVE CONSERVATION OF EXCAVATED REMAINS, SARNATH



**BEFORE**



**AFTER**



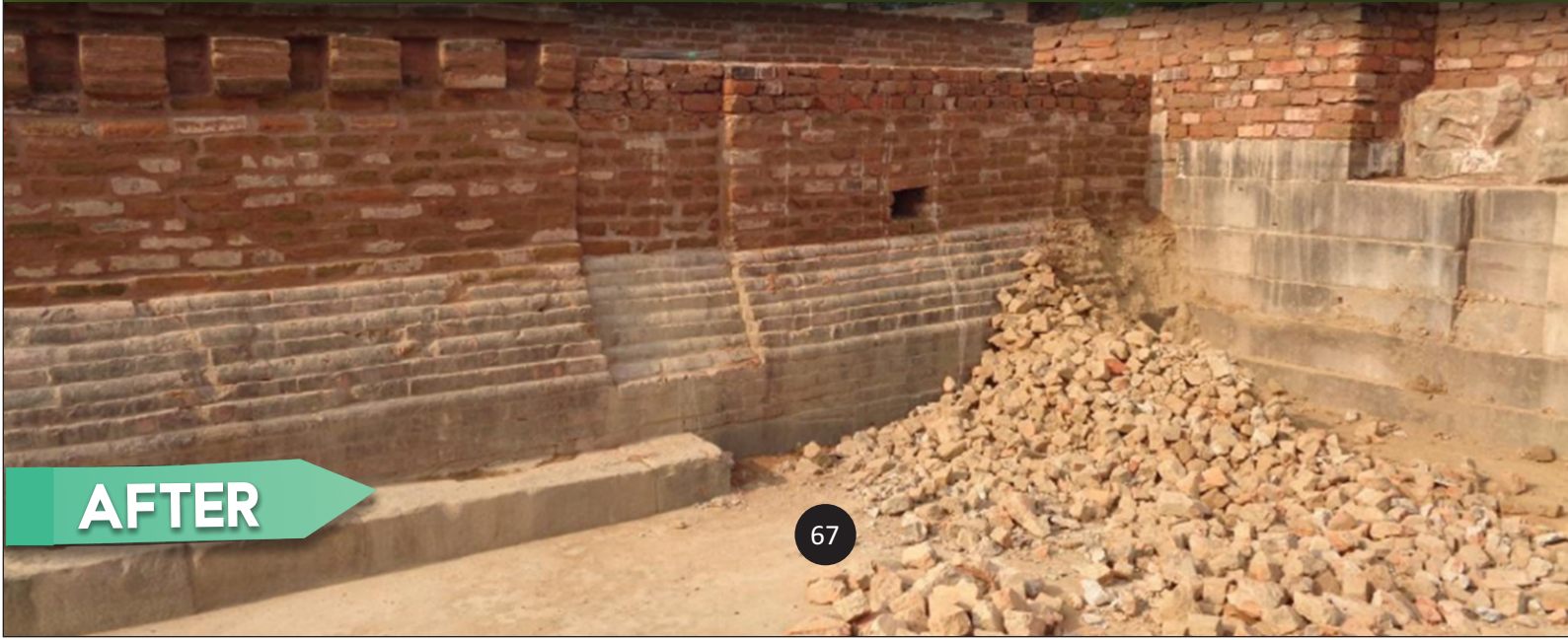
**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



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**AFTER**

# CONSERVATION OF OBSERVATORY OF RAJA MAN SINGH MAHAL, VARANASI





**BEFORE**



**AFTER**



**BEFORE**



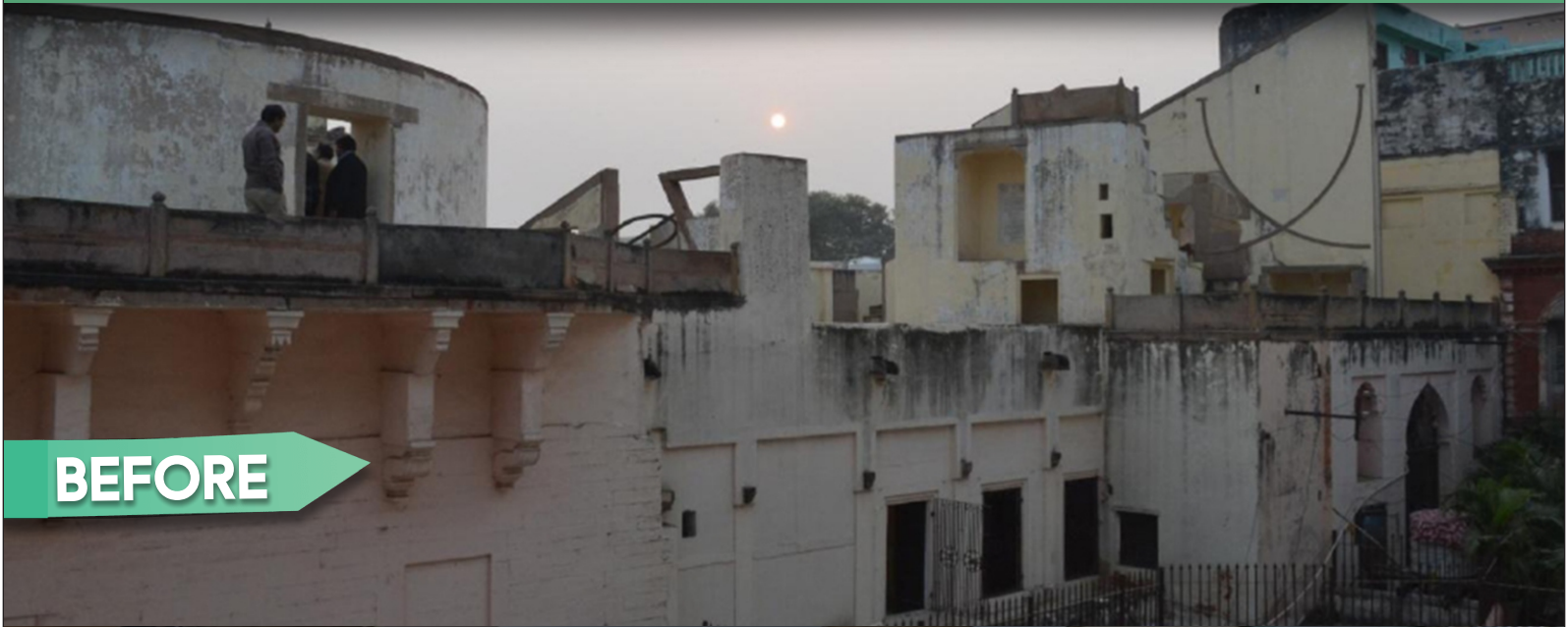
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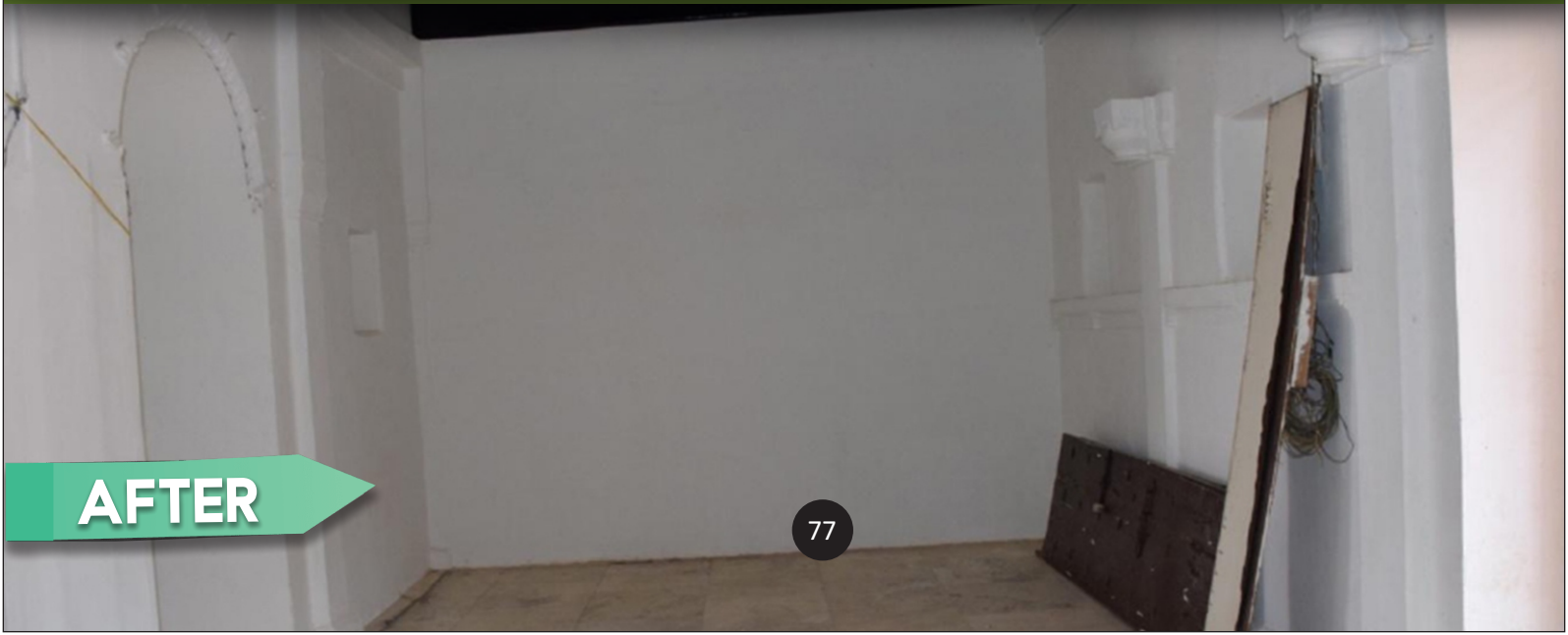
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# STRUCTURAL CONSERVATION AND DEVELOPMENT TOURIST FACILITIES AT EXCAVATED SITE, SARNATH



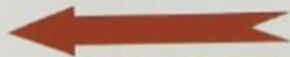
**BEFORE**



**AFTER**

मूलगंध कुटी विहार

MULAGANDHA KUTI  
VIHAR



BEFORE

मूलगंध कुटी विहार.

MULAGANDHA KUTI  
VIHAR



AFTER



**BEFORE**



**AFTER**





**BEFORE**



**AFTER**

# REPAIR OF TERRACE AND STONE STEPS AT RAJA MAN SINGH OBSERVATORY AT MAN MAHAL, VARANASI



**BEFORE**



**AFTER**



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**AFTER**





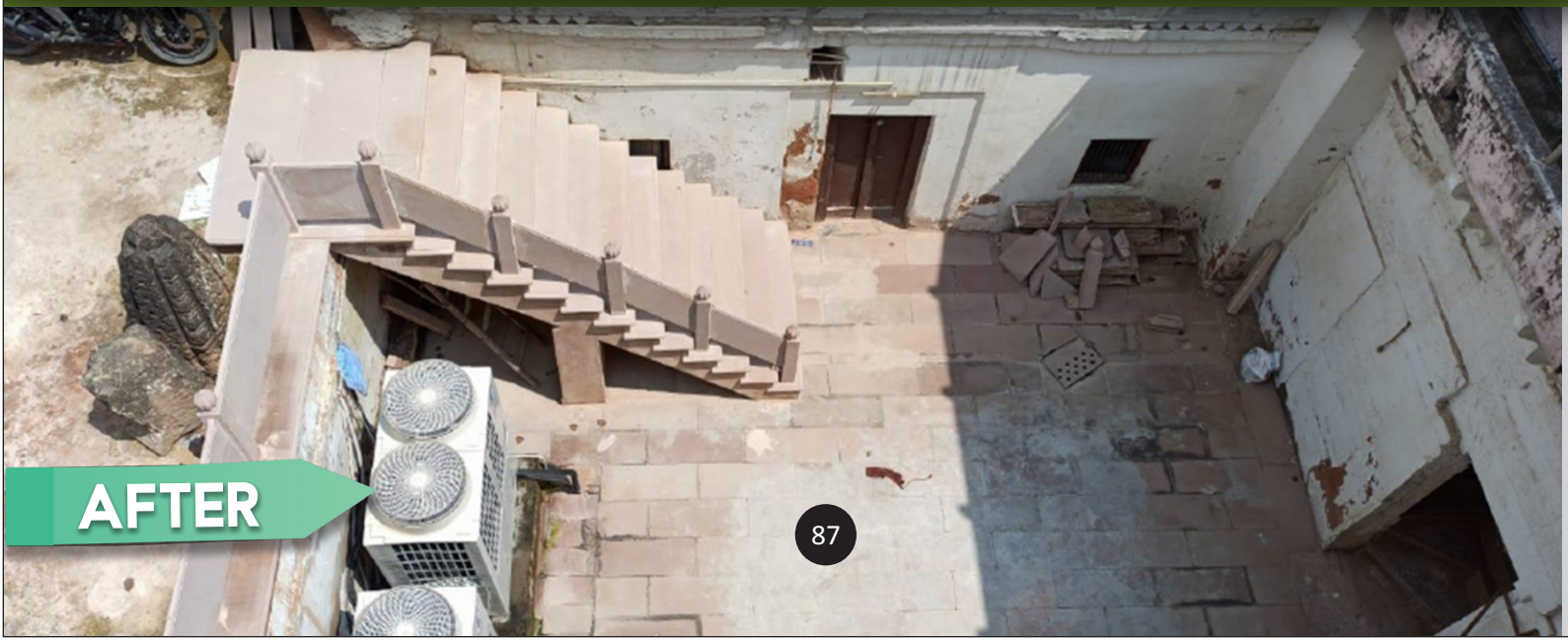
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**AFTER**



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**AFTER**



**BEFORE**



**AFTER**

# RANI MAHAL, JHANSI



# SANDAL SHAH, KANPUR DEHAT



**BEFORE**



**AFTER**



# KAPILVASTU PIPRAHWA, SIDHARTH NAGAR



**BEFORE**

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**AFTER**



**BEFORE**



**AFTER**



**AFTER**

OPPO A55 · © Sunny Kashyap  
2024/07/19 15:17



**AFTER**

OPPO A55 · © Sunny Kashyap  
2024/07/19 15:17

# ANCIENT SHIV TEMPLE RAJAMAU, RAIBARELI



BEFORE



AFTER



**BEFORE**

**AFTER**

# STRUCTURAL REPAIR OF BALAPIR TOMB, KANNAUJ



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



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**AFTER**

# STRUCTURAL REPAIR OF BALAPIR TOMB, KANNAUJ





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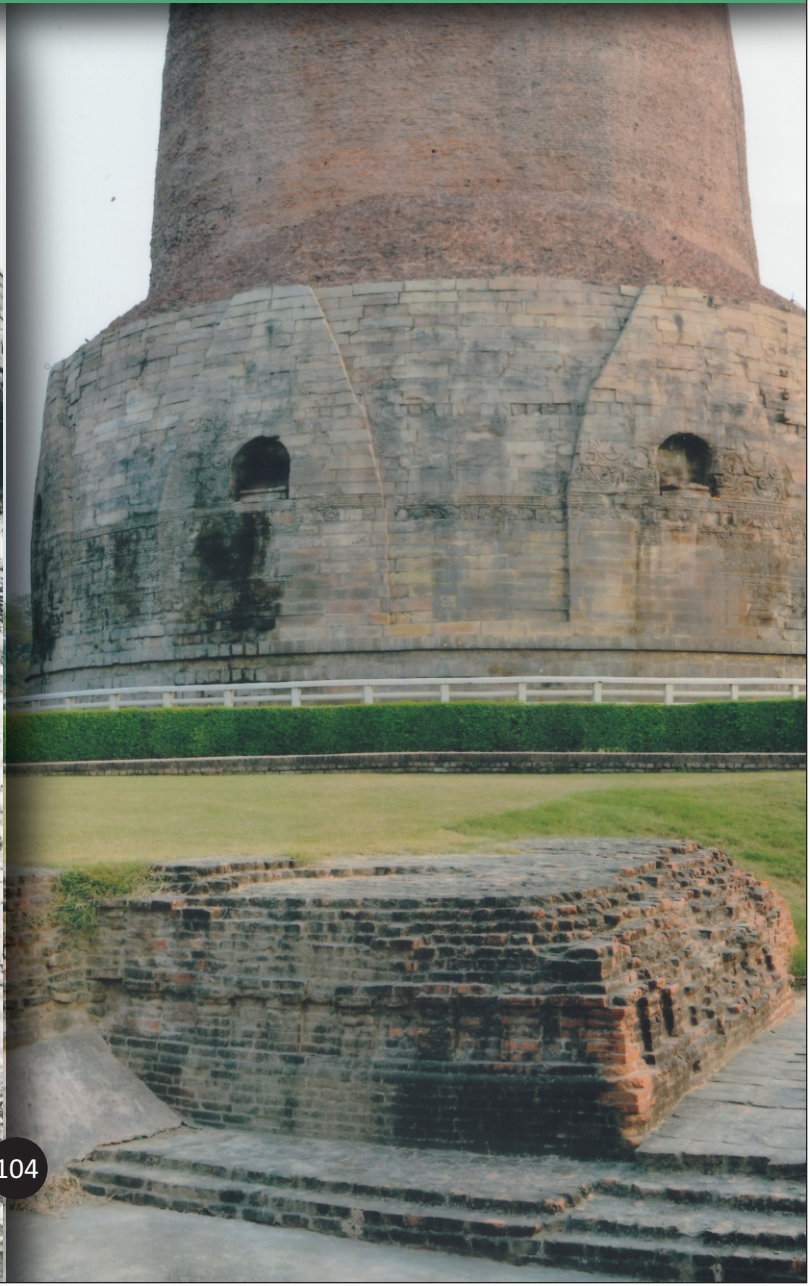


**AFTER**

# DHARMARAJIKA STUP, SARNATH

**BEFORE**

**AFTER**



# DHARMARAJIKA STUP AT EXCAVATED REMAINS, SARNATH



**BEFORE**



**AFTER**

# EXCAVATED REMAINS AT SARNATH

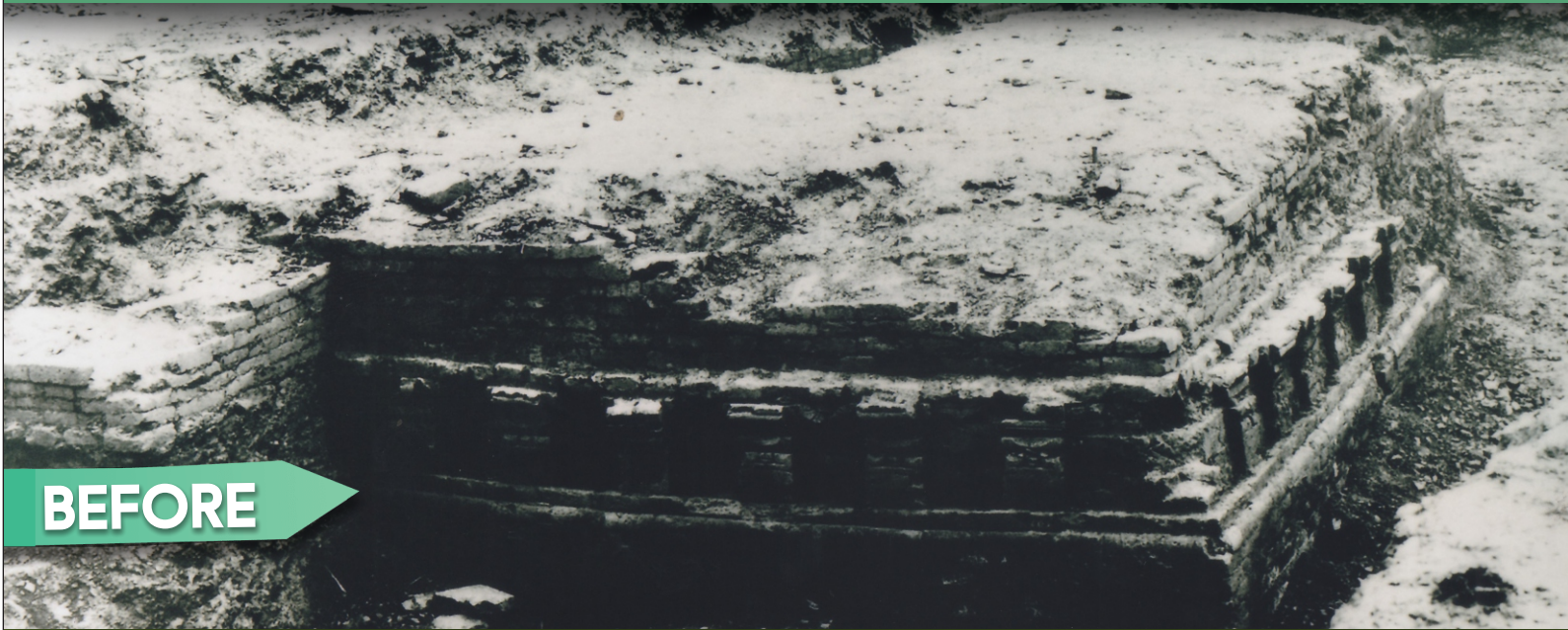


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**AFTER**

# EXCAVATED REMAINS, SARNATH



**BEFORE**



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# VOTIVE STUPA AT EXCAVATED REMAINS AT SARNATH



**BEFORE**



**AFTER**

# VOTIVE STUPS AT EXCAVATED REMAINS AT SARNATH



**BEFORE**



**AFTER**

# VOTIVE STUPA AT EXCAVATED REMAINS AT SARNATH



**BEFORE**



**AFTER**

# EXCAVATED SITE HULASKHERA MOHANLAL GANJ, LUCKNOW



**BEFORE**

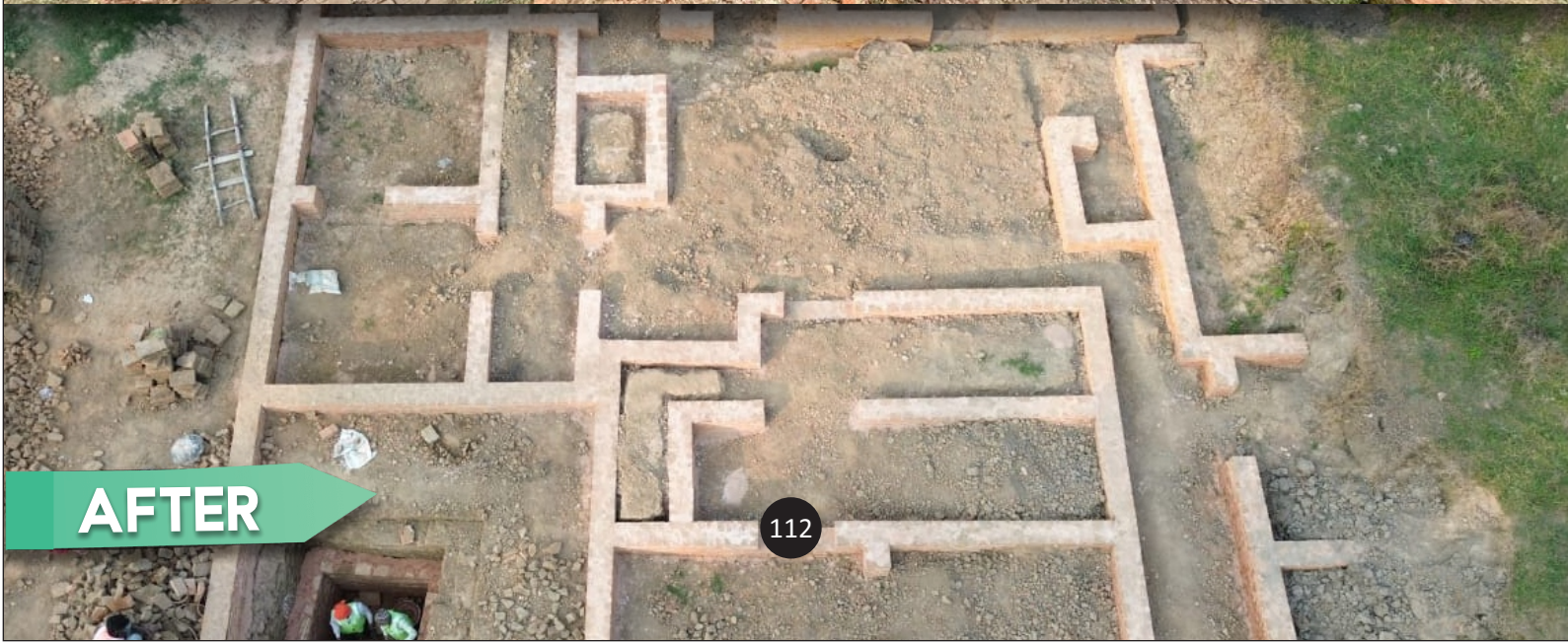


**AFTER**

# EXCAVATED SITE BANAR SHINGHA KALA KHURD MAHARAJGANJ



**BEFORE**



**AFTER**

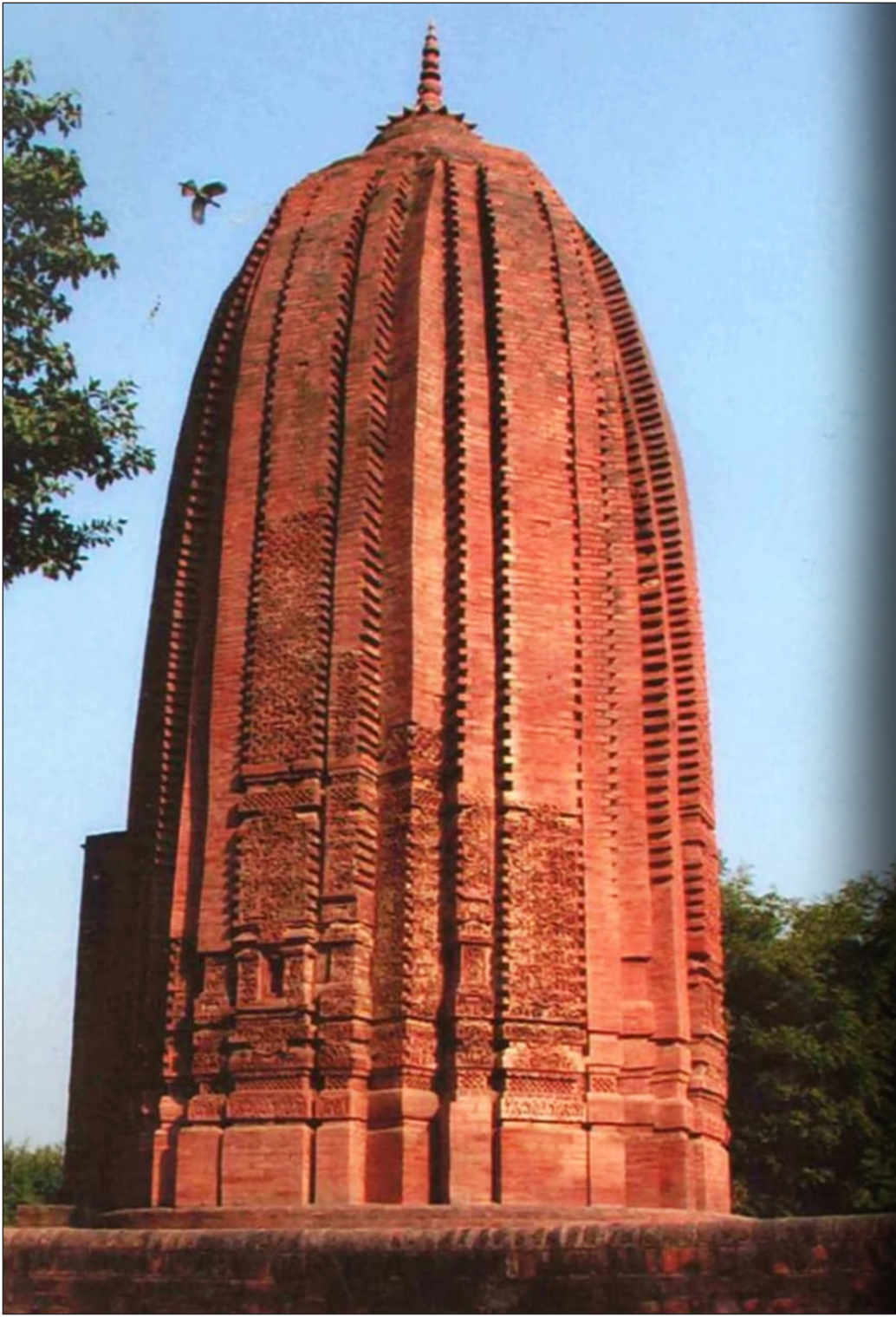
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**DBS ENGINEERS PVT. LTD.**  
**Civil/Electrical Construction & Maintenance**

## OUR ACTIVITIES

- 01 Heritage Building Conservation
- 02 Sub Station Operation & Maintenance
- 03 Civil/Electrical Construction Work
- 04 Topographical & Contour Survey
- 05 Transmission Line Survey
- 06 Road & Drainage Survey
- 07 Rail Route & Final Location Survey
- 08 Hydrological Survey
- 09 GIS & Remote Sensing
- 10 Geo-Technical Investigation



## **DBS ENGINEERS PVT. LTD.**

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