



TATA STEEL
WeAlsoMakeTomorrow



THE RATH

Tata Steel's Ode to Odisha

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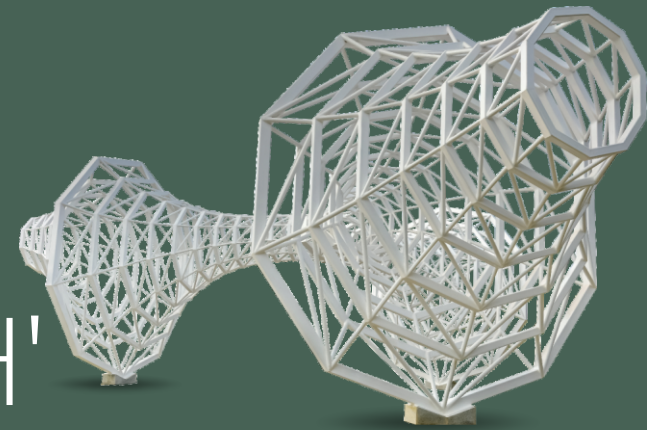
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PROLOGUE

THE 'RATH'

Exploring the notion of life, dynamic motion and energy depicting the cycle of creation



Night view of the 'Rath' in tricolor lights

A tribute to the mastery of Time, Space and Matter

Artistry has always extended beyond the preserve of the privileged in our country, especially in Eastern India. Interestingly, so has technology. They have both evolved, often hand in hand, around the visionary use of mind and material, or one fuelling the other.

Tata Steel and Art have a long history together. Apart from being patrons and collaborators of artists, the company has been an enabler in this movement, through its grassroots programmes. These include training in Saura, Gond paintings at Kalinganagar and such others, and Art Camps with established and upcoming artists in Jharkhand and Odisha.

Odisha's legacy of art and culture is inimitable. The Konark Sun Temple, the state's abiding testimony to the might of the Indian mind and its ability to chisel wonders out of stone and rocks, is one such magical structure; breathtaking in its mastery of time, space and matter.

The annual festival of the 'Rath', which is created as a vehicle for Lord Jagannath, is another tribute not only to a highly evolved society but to its advanced system of masterly artistry on wood and mobility technology. Marrying the two apparently specialised spaces, structure and movement, is Odisha's magnificent 'Rath Yatra' phenomenon that has impacted society over many millennia. It has inspired the concept of the 'juggernaut' for whom nothing is impossible.

The 13th-century Konark Sun temple is designed as a huge chariot on two pairs of a dozen wheels and must have inspired the earliest 'Raths'. Between them, they represent enormous energy— physical, mental and spiritual. It is the sheer force of such energy that inspired modern-day technology and developments in the state of Odisha.

The 'Rath' is a steel sculpture at Bhubaneswar, designed by the renowned architect Nuru Karim and presented by Tata Steel in collaboration with Bhubaneswar Development Authority.

It symbolises the strength, flexibility, aesthetics and ingenuity of the creative community, enabled by Tata Structura Steel Hollow Sections. It celebrates the long-standing association between Tata Steel and the state of Odisha in the public domain, accessible to all and setting a precedent for excellence.



Night view of Tata Steel Kalinganagar

Tata Steel in Odisha: A cherished partnership

Tata Steel's association with Odisha goes back to more than a century ago, when it established Asia's first integrated steel plant in the then undivided Odisha-Bengal-Bihar in 1907.

Odisha's contribution to Tata Steel has been enormous with the company's first iron ore lease given by the Maharaja of Mayurbhanj. Thereafter, it has been a series of commitments by the steel major to the state, investing in its growth and prosperity; spearheading ventures like the Ferro Alloys Plant at Joda and Bamnibal, Tata Refractories (now TRL Krosaki) at Belpahar, Chrome Ore Beneficiation Plant with the mines at Sukinda, Tata Sponge Iron Limited at Joda, TS Alloys at Athagarh, Iron ore and manganese mining operations at Joda and the Gopalpur Industrial Park.

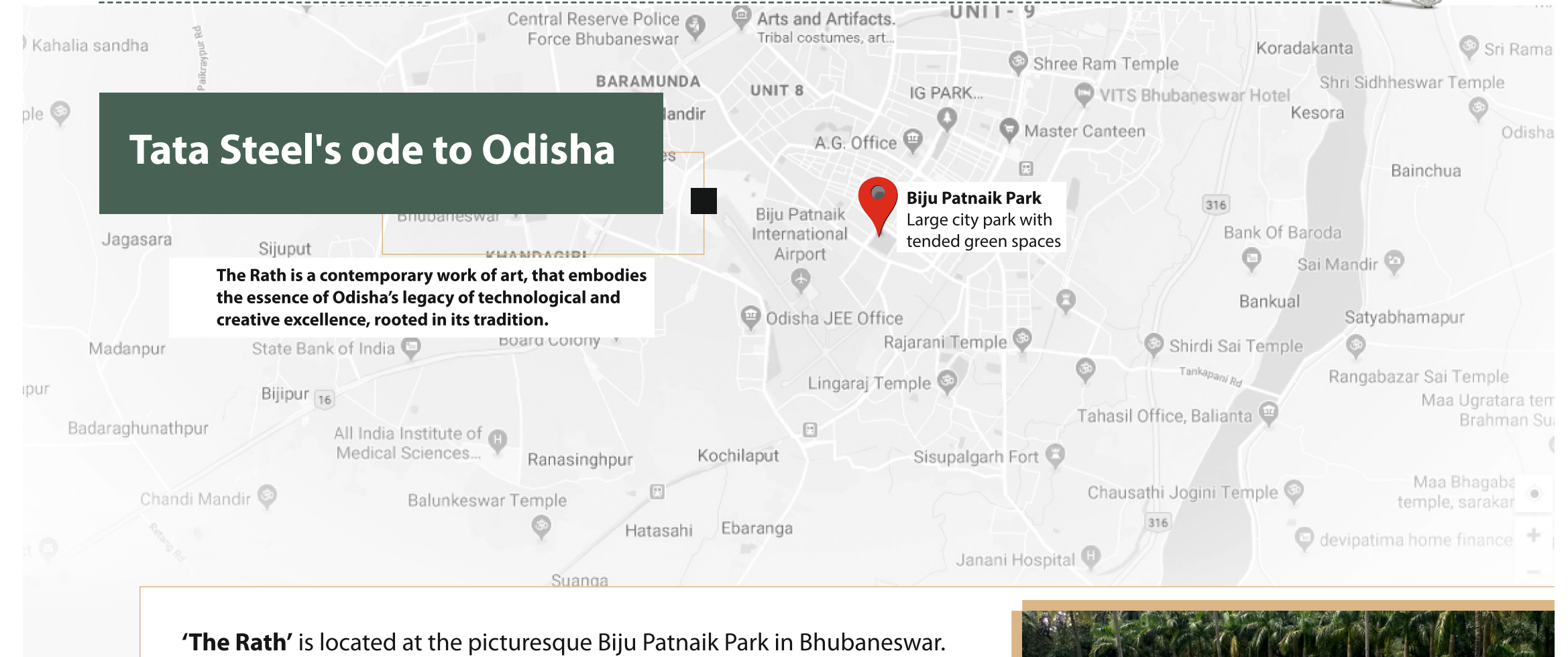
Tata Steel's long-standing bond with Odisha has only become stronger with the setting up of the first phase (3 MnTPA) of the integrated steel plant at Kalinganagar. The state-of-the-art operations at Kalinganagar is being expanded to 8 MnTPA. A new 55,000 TPA Ferro Chrome Plant and Industrial Park at Gopalpur, apart from the recent acquisition of Bhushan Steel with 5.5 MnTPA plant at Dhenkanal has reinforced the company's commitment to the state.

Tata Steel's ode to Odisha

The Rath is a contemporary work of art, that embodies the essence of Odisha's legacy of technological and creative excellence, rooted in its tradition.

'The Rath' is located at the picturesque Biju Patnaik Park in Bhubaneswar. This is amongst the most beautiful public parks in the country, a space for dialogue, social interaction and reflection for society at large.

The park is named after one of Odisha's most dynamic leaders and former Chief Minister Late Biju Patnaik. It is spread over **23 acres** and is dotted with many **activity corners** like the children's corner, the open air gym and running tracks.



Biju Patnaik Park
Large city park with tended green spaces



Biju Patnaik Park



Cycle of Time

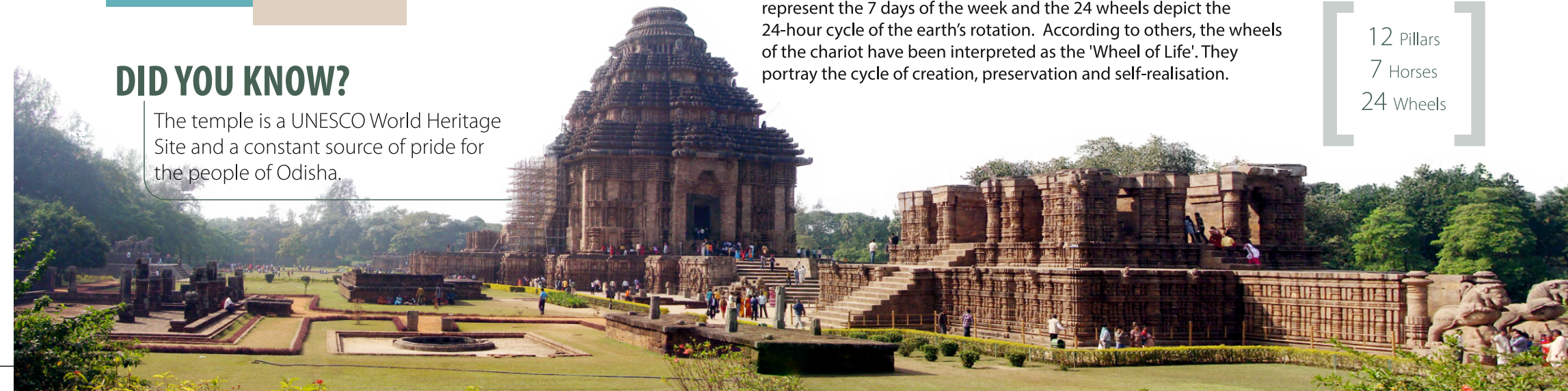
Stone carved wheel of the Sun Temple at Konark

Vitality of Life

Wheel of 'Karm'

DID YOU KNOW?

The temple is a UNESCO World Heritage Site and a constant source of pride for the people of Odisha.



An expression of Odisha's timeless heritage

The 'Rath' design is inspired by the dual narrative of the Konark Sun Temple and the 'Rath Yatra' (Chariot festival) in Odisha.

The Sun Temple, Konark

Indian religious architecture is not just a testimony to the faith in divinity. It is a testimony to the knowledge, art, architecture and technology that has embedded itself in the culture of the times. Odisha's temple architecture is a remarkable showcase for its technology muscle and scientific spirit, the epitome of which is the Sun Temple of Konark.

The temple is built in the form of a giant ornamented wheel chariot; a 'Rath' of the Sun God, Surya. Its 12 pairs of carved stone wheels, some of which are three meters high, create a sense of motion and are driven by 7 horses. According to some, the 7-horses represent the 7 days of the week and the 24 wheels depict the 24-hour cycle of the earth's rotation. According to others, the wheels of the chariot have been interpreted as the 'Wheel of Life'. They portray the cycle of creation, preservation and self-realisation.

12 Pillars
7 Horses
24 Wheels



The Rath Festival

The design of the 'Rath' is also inspired by the energy of 'Rath Yatra', the chariot festival in Odisha, which attracts millions of pilgrims. All the three deities of the temple— Balabhadra, Subhadra and Jagannath, travel in three different chariots during this festival. The chariots are pulled by devotees in a yearly procession that celebrates heritage, social experiences and holds tremendous cultural significance.



The 3 chariots at 'Rath Yatra' in Puri, Odisha

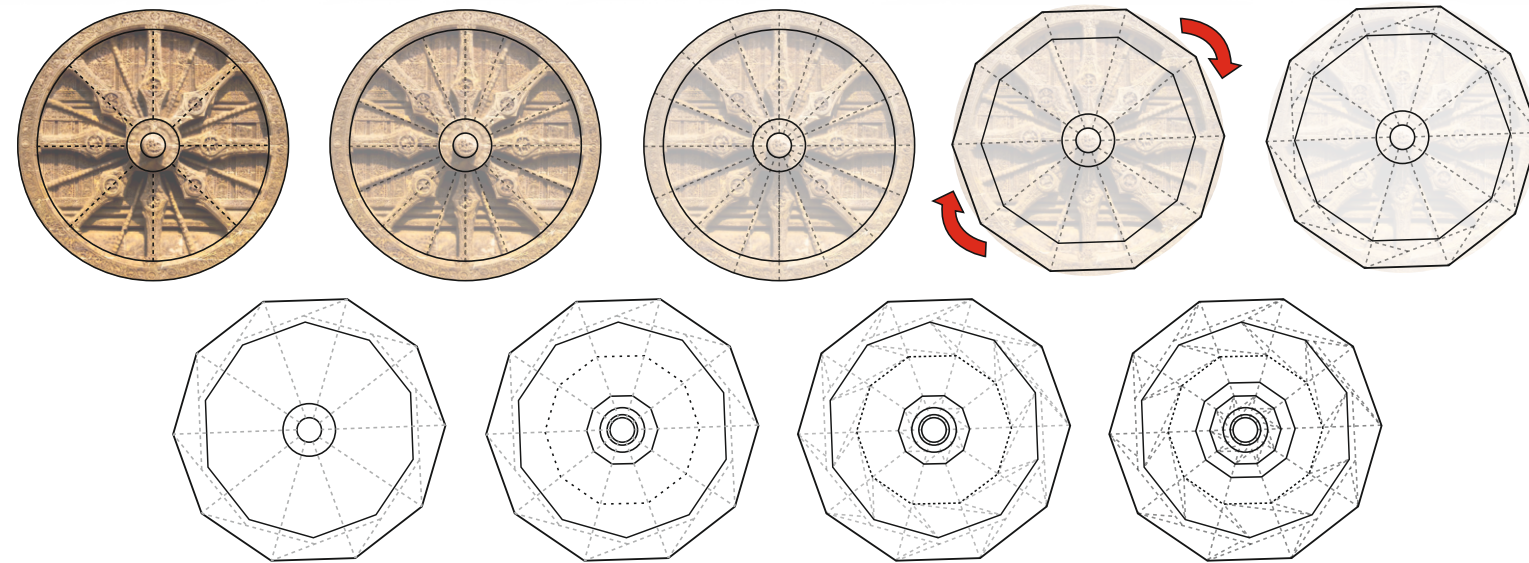
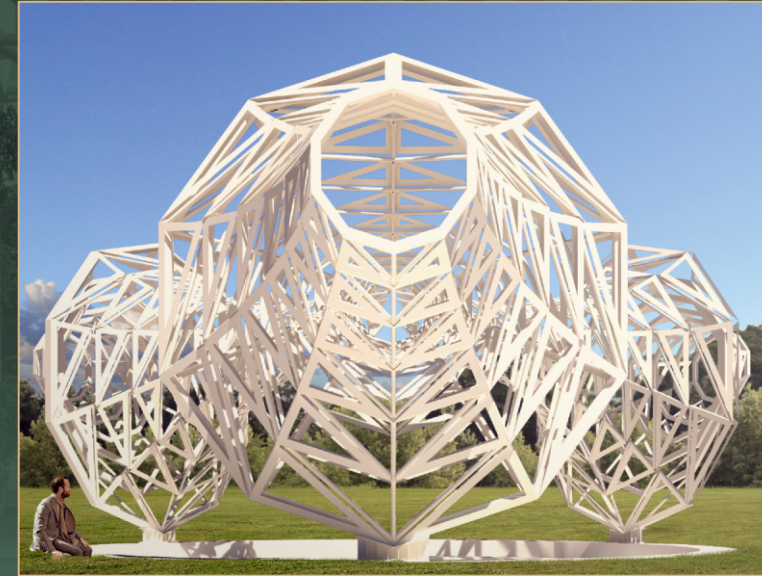


The Moving Power

From concept to creation

In its essence, the 'Rath' exemplifies the continuity of tradition and culture which has its roots in the dawn of human consciousness. It weighs approximately 13.5 MT and rests only on 3 points with a minimal footprint on the landscape, harbouring an amphitheatre under it. The landscape appears to be flowing through the 'Rath' creating a profound relationship between man and nature.

The 'Rath' pavilion design explores the notion of life, dynamic motion, speed and energy depicting the cycle of creation. Tata Structura Steel Hollow Sections are an expression of these precise qualities and were an ideal material to portray the embodied energy and the philosophical spirit of the 'Rath'.

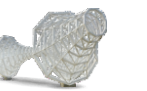


Rotating polygonal frames are laid out on a 120 degree tri-axis engineered with perfection. This represents the 8 hour subdivision of the 24 hour cycle and the concept of time.

Monument Specifications

Weight : 13.5 MT
Height : 20 ft from base
Contact points : 3
Polygonal Frame: 120° tri-axis

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The pavilion design can be experienced at three levels

1 The experience of being physically and psychologically caught in a web of steel bound by a **space-time continuum**



2 The 'Rath' pavilion underbelly houses an **amphitheatre for events and performances**, which can be accessed by people from all walks of life

3 Exploring the 'Rath' as a **sculpture** in the park, a beacon that attracts intrigue, inquiry and investigation

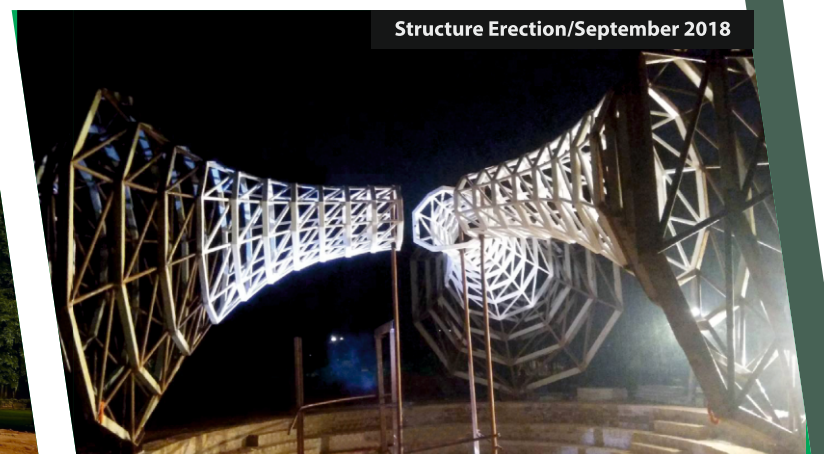


Capturing the spirit

THE GENESIS



Vignettes from the making of the 'Rath'



MOTION AND ENERGY, CRAFTED IN STEEL

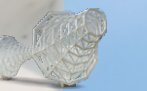


EVOLVING INTO AN ICON FOR TOMORROW





The 'Rath' pavilion design comprises an intricate web of structural steel, which encourages users to interact in non-traditional ways.



The structure has been designed with cutting-edge tools and fabricated with the material of the future. Total tonnage of Tata Structura Steel Hollow Sections used is approx 13.5 MT and the grade is YST 355.



The Howrah Bridge, Kolkata

An icon in steel, the Howrah Bridge was unveiled over 75 years ago, primarily to aid supplies to British troops. The construction of this marvel consumed 26,500 tons of steel, out of which 23,500 tons of high-tensile alloy steel was supplied by Tata Steel.

Bandra-Worli Sea Link, Mumbai

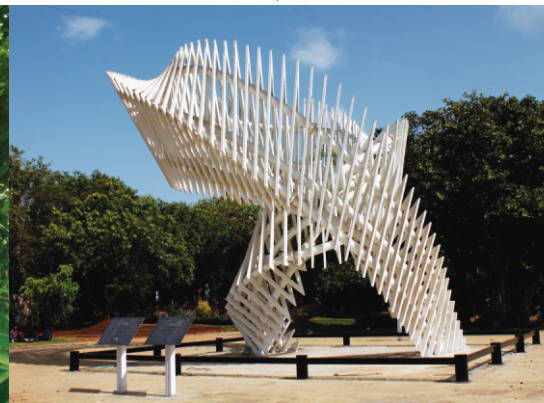
The Bandra-Worli Sea Link was designed as the first cable-stayed bridge constructed over open seas in India. It is 8 lanes wide, 4.7 kilometres long and dominates the Arabian Sea, making a difference to the lives of millions. Tata Steel's state-of-the-art and durable LRPC strands have played a part in building this engineering marvel.

Butterfly Park, Bengaluru

The Butterfly Park at Banneraghatta, Bengaluru is a nature lover's paradise. Spread across an area of seven-acres, the giant dome-shaped 'Butterfly Trail' at the park is built using Tata Structura Steel Hollow Sections and houses thousands of species of butterflies.

'Charkha' - Our ode to the city of Mumbai

This is a modern interpretation of Gandhi's Charkha, a symbol of self-reliance, created using Tata Structura Steel Hollow Sections. These are strong and flexible, which gives them the capacity to be used imaginatively. Tata Steel has, through the Charkha, proved that steel can capture the fantasy of architects to build unconventional structures.



Contemporary icons for the India of today

Over the last 100 years, Tata Steel has been associated with some of the most iconic structures of India, The Howrah Bridge, Kolkata; Bandra-Worli Sea Link, Mumbai, The Butterfly Park, Bengaluru and an award-winning steel sculpture depicting the 'Gandhian Charkha' at the Oval Maidan, Mumbai.



Our sincere thanks to the team that made it possible

Architectural Design – Nuru Karim, NUDES

NUDES is a multi-disciplinary practice that has collaborated with writers, artists, sculptors, product designers, robotic engineers, mechanical engineers and digital technology based consultants. Nuru Karim, Founder and Principal, NUDES, received his Masters in Architecture and Urban-ism from the Architectural Association [AADRL] London, United Kingdom in 2006. NUDES has achieved critical recognition both for its built work, in competition and design awards including a nomination for the Aga Khan Award for Architecture 2013 cycle.

Structural Design – Tata Growth Shop

Project Execution by Sagar Business Private Limited

Biju Patnaik Park maintained by Bhubaneswar Development Authority

Material from Tata Structura (Tubes Division), Tata Steel



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