

National Salt Satyagraha Memorial *

In India's Gujarat province, two stainless steel beams rise 40 meters into the air, perching a "salt crystal". This sculpture is a symbol for a pivotal moment in India's struggle for independence. Molybdenum-containing stainless steel is the ideal material to stand up to the strong salty winds at this coastal location.

© Arpit Khambhata | Dreamstime.com



An international team of four dozen artists created 80 life-sized sculptures of the marchers, cast in silicon bronze.

Mahatma Gandhi once lifted a handful of salty sand from Dandi Beach and declared, "With this, I am shaking the foundations of the British empire!" At that moment, Gandhi and hundreds of protestors began making salt from seawater illegally. It was the culmination of a 24-day march in defiance of the British salt monopoly, which levied a 2400% tax on this daily necessity, and arguably the beginning of the end of British rule in India.

In 2019, the National Salt Satyagraha Memorial, a 6-hectare memorial park honoring the Dandi March, was opened in this remote coastal town. The park's centerpiece is a 2.5-tonne glass cube cradled by a pair of "hands" capping the top of the stainless steel "arms". On the ground below the towering structure is a 5-meter-tall statue of Gandhi. The glass cube represents a salt crystal, it and the stainless steel arms glow in changing colors at night, illuminated by carefully placed lasers.

Story of the Salt Satyagraha

Satyagraha loosely translates to "upholding the truth" and embodies Gandhi's principles of nonviolent civil disobedience. In 1930, Mahatma Gandhi led a 390 kilometer march toward the sea to make salt in protest of British colonial rule, which controlled the country's salt trade for decades. 80 men of every religion, caste, and region of India marched beside him, with more people joining each day until there was a 3-kilometer-long wall of protestors.

The march inspired millions of Indians to break the Salt Act and begin making and buying illegal salt. Although the march initially only involved men, women joined the protest by actually producing and selling tonnes of salt. Over 60,000 people were incarcerated as a result.

Although the Salt Satyagraha did not lead to an immediate concession of British rule, it was a watershed moment

that made British leadership realize their authority was contingent on the acceptance of the Indian populace.

Memorial and sculpture design

The memorial's design was the product of a sizeable interdepartmental collaboration at the Indian Institute of Technology Bombay. In addition to the great A-frame, the memorial park includes an artificial lake at its center, circled by a walking path. Visitors can stroll on the path towards the monument at the end of the artificial lake. The route symbolizes the road of the Dandi March. 24 bas-relief sculptural murals, one for each day of the March, tell its story along the way. At the far end of the lake, 80 magnificent life-size sculptures of the marchers recreate the sense of being frozen in that moment nine decades ago. On the other side of the lake, a grove of 41 stainless steel solar "trees" flanks the return path, allowing the entire park to be energy-neutral. At the visitors' center, guests can make their own salt and take a pinch home as a memory.

24 narrative murals along the foot path tell the story of the Dandi March.





The top of the A-frame during construction, before installation of the glass salt crystal.

The main frame of the sculpture is made of 220 mm diameter 2205 duplex stainless steel tubes with 12 mm wall thickness. Its towering arms are structurally clad with laser-cut plates of varying thickness, ranging from 12 mm

to 25 mm of the same material. The 3% molybdenum

in this stainless steel provides the corrosion resistance

necessary to avoid staining at the corrosive seashore location. Overall, 50 tonnes of duplex stainless steel were used in the monument.

The forest of solar trees powers the whole installation, including the salt-making pots for visitors. Each tree is made of Type 316 stainless steel. Besides the main trunk, they have 12 stainless steel "branches" positioned optimally to face the sun. Each branch supports a solar panel on a stainless steel "leaf", fabricated from square tubes. In total, this forest uses 70 tonnes of Type 316 stainless steel.

The National Salt Satyagraha Memorial sculpture is one of India's most famous duplex stainless steel sculptures. The fact that molybdenum-containing stainless steel was used to honor such a critical moment in the country's history exemplifies its beauty, longevity, and strength. Like the spirit of Satyagraha itself, this stainless steel sculpture will not be overcome by salt. (Karlee Williston)

The solar trees power the memorial's lighting, facilities, and visitor activities.

