

CONSERVATION OF LORD JAGANNATH TEMPLE AT PURI THROUGH MEASUREMENT OF MECHANICAL AND ELECTRICAL PROPERTIES OF CONSTRUCTION MATERIAL

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Lord Jagannath Temple at Puri, one of the oldest eastern India belongings to the Ganga dynasty & constructed in the 11th century has a total height of 59.95 mtrs. Situated at 1km from sea coast it has been getting deteriorated due to the vagaries of environment and in recent years, it has been observed that several stones are falling from the roof of Garbha Griha at frequent intervals.

After it was taken over for the maintenance by the Archaeological Survey of India, the thick lime plaster 18" thick which was put in the 15th – 16th century has been removed to expose the sculptural beauty of temple on the stone surface. In order to protect the temple, the surface of the temple was cleaned by light acetic acid and a coating of methyl methacrylate (20%) was applied to the surface for preservation of the stone. Several damages of the temple was viewed with serious concern by the state government. A committee consisting of the experts from RRL, Bhubaneswar was formed for recommending suitable remedial measures. As a part of study the scientist of the laboratory undertook measurement of various parameters both inside and outside the temple and also the relative strength of stones at various levels was tested to assess the actual strength for recommending suitable conservation measure. This paper highlights, the above aspects studied in this laboratory.