

**Introduction:**

On 3<sup>rd</sup> January 2022, 9 students and 3 faculties from the department of Chemistry went for a trip to Bhubaneswar with an aim to visit multiple places that promotes the culture of both Arts & Science. The journey from Rajgangpur to Bhubaneswar by train took around 9 hours. Our objective was purely to explore science based places but we also went to places where we gained knowledge about Arts & Culture.

List of places that was visited by us:

- Odisha State Museum
- Pathani Samanta Planetarium.
- Orissa Modern Art Gallery
- Regional Museum of Natural History.



( Image:Rajgangpur Railway Station)

Following Students attended the study tour:

- Arundhati Roy Chaudhary
- Monalisha Das
- Payal Dey
- Tushakanti Mahanandia
- Sonali Mishra
- Nikita Bara
- Jharana Chhatria
- Micheal Toppo
- Sanjukta Naik

**Trip objective:**

The objectives were various but our primary objective was to understand how the museum authority conserves the fossils of different species with the help of chemicals, The second most important objective was to gain knowledge about the usage of chemistry theories in Space Science.

**Field observation:**

We were not particularly guided by any employee in places which we visited, Our Madam, Kusum Burh (H.O.D) had knowledge about those particular areas and she exceptionally explained each and every minor detail and concept behind the relationship of chemistry with those places.

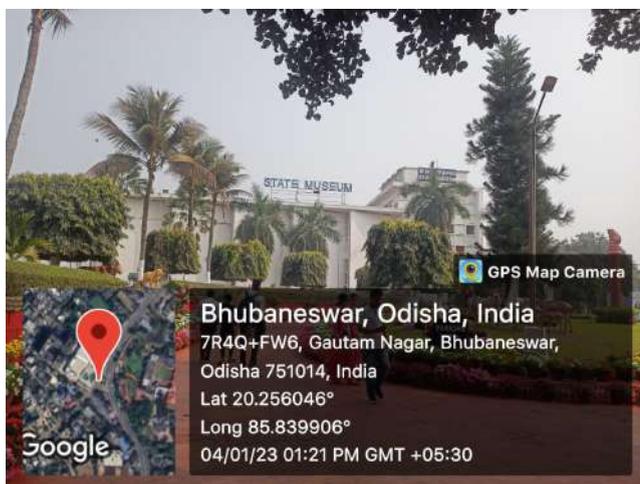


Image: Odhisa State Museum

Odisha State Museum is a museum in Bhubaneswar, Odisha. In its original form it was established in 1932 and later moved to the current building in 1960. The museum is divided into eleven sections, viz. Archaeology, Epigraphy, Numismatics, Armoury, Mining & Geology, Natural History, Art & Craft, Contemporary Art, Patta Painting, Anthropology and Palm Leaf Manuscripts. The museum is headed by a superintendent and the administrative control lies in the hands of the Cultural Affairs Department, Government of Odisha. This place was dedicated to arts Majorly including historical ideologies, the experience was bliss to get to know about the culture and history.



Image: Pathani Samanta Planetarium

Pathani Samanta Planetarium is a planetarium in the city of Bhubaneswar in India named after astronomer Pathani Samanta. It was founded to create awareness about astronomy . It carries on activities like night sky viewing, audio visual programs and poster shows. It also displays various astronomical devices. It also shows the history of Pathani Samanta with stone carvings on the walls. It also shows some of his inventions like the sundial. While exploring planetarium our H.O.D explained about the relationship between chemistry and astronomy, which is known as Astrochemistry even if it is not included in the basic teachings of Chemistry we can find its reference in the periodic table.



Image: Orissa Modern Art Gallery

Orissa Modern Art Gallery is the only gallery in Orissa offering a large permanent display of selected contemporary works of art. It is established for the promotion of Orissan contemporary art, artists and artisans. The Orissa Modern Art Gallery is a non-profit organisation. This place have no relation with Chemistry but somehow it arouses a sense of pride due to the facile and fancy work produced by the Contemporary artists with pure drudgery.



Image: Regional Museum of Natural History

The Regional Museum of Natural History, Bhubaneswar is a museum in Bhubaneswar, Odisha, India with exhibits on plants, animals and geology of the eastern region of India. The Regional Museum of Natural History at Bhubaneswar, was inaugurated in 2004. It was undertaken by the Ministry of Environment and Forests, Government of India. The museum is located near Acharya Vihar Square on Sachivalaya Marg, Bhubaneswar. The museum exhibits plants, animals and geology of Odisha, the Eastern and north-eastern India and the Andaman and Nicobar Islands of India. The galleries emphasise the conservation of nature and natural resources while depicting ecological interrelationship among plants and animals. Visually challenged students can feel the exhibits of animals on the premises. The museum provides an extracurricular activity for schools and promotes environmental awareness. A skeleton of a baleen whale has been installed in the museum, which is supposed to be the largest for any museum in India. Since May, 2017 this museum became one of the first museums in India to generate and use green energy through solar power production. This grid connected solar power plant is of roof type and generates 189 KVA electricity per month which makes it largest rooftop solar power plant in Odisha.

In this museum our H.O.D explained us each and every detail about the chemical usage by the authority of the museum to preserve the fossils and dead bodies of various animal species the chemical used to preserve the dead bodies is called embalming fluid, the another acid is Highly dilute (3-7%) concentrations of acetic or formic acid in water. The process of chemical usage was described very exceptionally and in a facile way.

Conclusion:

On 4<sup>th</sup> January we went to all these places mentioned above for our lunch and everything else was on time. On 5<sup>th</sup> January we came back to our respective college and put an end to our study tour. The tour was full of knowledge and joy and we explored more in perspective of our major subject and also gained knowledge about the Arts and Culture. We achieved our objective in a precise manner and gained additional knowledge as well.