



SANDIP FOUNDATION'S
Sandip Institute of Engineering and Management, Nashik
Department of Civil Engineering
Academic Year 2019-20
Report on Educational Visit

1. Event Title: Educational Visit of SE Civil Students at Gargoti Mineral Museum , Sinnar , Nashik.

2. Event Date: 07/03/2020

3. Event Conduction Duration: One day

4. Event Venue: Gargoti Mineral Museum , Sinnar , Nashik.

5. Name of Event Co- ordinator: Prof. Mrs. Radhika Bhadane

6. Event Details:

Subject:- Geology.

Day & Date of Visit: Saturday 07/03/2020

Class: SE Civil Students all Division

Topic Covered : Details of rocks and minerals.

Objectives:

- 1.To understand natural process of formation of mineral and rocks.
- 2.To understand the stratigraphy of Maharashtra- “The Deccan Traps” which is one of the largest continental flood basalt provinces on earth.
- 3.To visit the Gargoti Mineral Museum was to identify and know characteristics of various minerals.
- 4.To identify main rock forming minerals of the earth crust.

Event Summary:

Stratigraphy of the area:-

The end of the Mesozoic era was marked by the unique outpouring of enormous lava flows which covered extensive area in the peninsula. These lava flows occurred mainly through long and narrow fissures. Therefore, they are called “ fissure eruption “. At a few places like Girnar hills and Ranpur , however , the eruption were of the “ central type”. Based on the fact that these lava flows occur in Deccan (i.e South India) and produce step like appearances of their outcrops, they are called “ Deccan traps”. Similarly, as these are basaltic in composition and have produced flat topped plateau – like features, these are also called as “plateau basalts”.

- Occurrence or Distribution:

The present area occupied by Deccan traps is over 5,00,000sq.km. They are found in Gujarat (Kutch), Madhya Pradesh , Maharashtra , Karnataka and Andhra Pradesh, they occur more or less as a single huge patch. They extend up to Belgaum (in Karnataka) in the south , Rajahmundry (in Andhra Pradesh) in the south east . Amarkantak in the east , and Kutch in the north west

- Lithology:

The Deccan traps are essentially basalts. They are either vesicular or amygdaloidal. Sometimes, they occur intercalated with Inter Trappeans and ash beds. The Inter Trappeans are fluviatile or lacustrine sedimentary formation and have a rich fossil content. They have been formed during the intervals of successive eruption.

- Fossil Content:

Many animal and plant fossil have been found in Inter Trappeans which occur in between the Deccan traps. The remains of algae, palm and dicotyledonous trees occur as important plant fossils. The animal fossil include those of gastropods, frogs, tortoise and crustacea.

Economic Importance :

1. Building material :

Being dense, hard and durable. Deccan trap make good building stones. But as their colour is black, they are used limitedly. The “Gateway of India” in Bombay is built of these rocks. As road metal , the trap are excellent for macadam or tarred roads. They are hard , tough , wearresistant and have a good building property. They are also very good for use as aggregate in cement concrete.

2. Gemstones :

Many semi-precious stones like agate, onyx, carnelian, and amethyst occur as geodes in trap.

3. Bauxite :

Weathering of the Deccan traps has produced very high grade bauxite deposits at many places. Bauxite deposits of Gujarat, Kolhapur, Katni, Jabalpur, Mandla, Sarguja, etc, have been formed this way.

4. Laterite :

Iron – rich laterites are used in some places as building (dimension) stones.

5. Black cotton soil :

The black soil formed out of Deccan traps know as a regur , is highly suitable for growing cotton.

6. Ground water :

The vesicular structure and associated interconnected joints or fissures help these traps to possess reasonable ground water potential.

Outcome:

1. To understand the stratigraphy of Maharashtra as we could witness the world’s largest flood basalt province. It enhanced our knowledge on the economic importance of Deccan Trap rocks.
2. To see rare collection of geodes and other precious and semiprecious minerals of Deccan Traps along with impotent fossil of Dianosorous and other creatures.
3. To understand various physical properties of the minerals and their identification on hand samples.
4. To understand main identifying properties of Geodes, especilayy minerals of Maharashtra state.
5. To understand physical processes like erosion and weathering that are responsible for reshaping earth crust.

Event photos:



