

THE INSTITUTE OF PALÆOBOTANY, INDIA*

AT this solemn hour, in the presence of this distinguished gathering, it is my special privilege to request the Prime Minister of India to lay the foundation-stone of the new buildings of the Institute of Palæobotany.

This is in some ways a unique occasion. For, this Institute is the first and only one of its kind in the world. And in asking you, Sir, to do us this great honour I feel I have something of a personal claim upon you.

Palæobotany is the common ground between Botany and Geology—it is in fact the botany of the rocks. As one who has had to do with the creation of this Institute and with the direction of its activities during the past few years I may be allowed briefly to explain that here we study not only fossil plants but also the rocks in which they are found. Experience has taught us that it is only thus that we can form anything like a full picture of plant life through geological time.

In the same way as a child's walk is made up of a series of falls, the edifice of Science is erected upon a series of mistakes.

The Science of Palæobotany began somewhat like a purely academic pursuit, a study of curios. Gradually the point of view has changed as it always does with time, and it has revealed new vistas. The whole outlook has now widened beyond recognition. To-day the study of fossil plants, pursued with modern techniques and with due regard to its repercussion, upon all the bordering sciences, already occupies a respectable place among the sciences and fully deserves the support that it is now receiving from all sources. It would not only allow us glimpses into the evolutionary history of plants, but helps us more and more accurately to tell the ages of strata and thereby to explore the mineral wealth of the earth, particularly coal and oil, to picture the geography of the past, and to understand the structure of the earth's crust with its recurring phases of

earth movements some of them affecting entire continents.

With modern methods of study, geological formations many thousands of feet thick which geologists were accustomed to regard as barren of fossils and therefore not datable, have been shown to be teeming with microscopic fossils which have thrown a flood of light upon their geological age, and have given us improved methods of classifying the oil-bearing strata.

The stone, which it will be my privilege now to ask you to lay, is a somewhat unusual sort of monument. It has been purposely made up in this Laboratory from an assortment of rocks and fossils from many different countries, and from many geological forms from the oldest to the youngest, covering a span of time from at least 600 million years ago to only about the beginning of the Christian era. The specimens have either been collected by ourselves or have been presented to the Institute by numerous colleagues all over the world. Some of them illustrate discoveries of palæobotanical interest, others are of equally great geological significance or have importance in economic geology.

Some of these fossils were discovered only a few weeks ago in the Rajmahal Hills in Bihar. Slumbering for millions of years in the strata, these immortal things woke up, as it were, under the stroke of the geological hammer and again saw the light of day for the first time last January. Now they have been laid to rest again in this stone, as if in a second grave, but with their faces uncovered, undying witnesses of a strange world of the past.

Thus, within the limits of our resources and the technical exigencies, an attempt has been made in this foundation-stone to epitomize the entire field of palæobotanical science to-day, not only in India but in the world. We have been happy also to commemorate here in this way gifts received during the past 30 years or more from colleagues in far-off countries.

It is our hope that in this stone a link will have been forged in the chain of international goodwill and cultural co-operation. By laying this foundation-stone you will therefore be helping us to achieve for this young Institute a hopeful future of broad and truly international outlook which is one of our main objectives.

* Abstracts from the unaltered rough notes of the speech delivered by the late Professor Birbal Sahni, F.R.S., on the occasion of the laying of the foundation-stone of the Institute of Palæobotany, by the Hon'ble Pandit Jawaharlal Nehru, Prime Minister of India and Minister for Scientific Research, on 3rd April 1949.