

communication (*Current Science*, Vol. 14, R.P. 210-11, August 1945). The bacteria are not uniform in size as has been noticed by several workers on Symbiosis. These bacteria stain red with Giemsa. According to the previous work done in this Laboratory these bacteria are real Symbiots and are probably responsible for the pigment production. This hypothesis can be incidentally conformed by the observation that during the nymphal stages the red bacteriotome is more intense in colour than in the adult stage.

With regard to the brown tumour it may be pointed out that it is pressed between the chitinous skin and the enveloping red tumour.



FIG. 3. P. Unknown Cell-inclusion

Fig. 3 represents cross-section of the brown tumour stained in Heidenhain's hæmatoxylin. The cell-inclusions are not clearly defined like many others recorded in the literature on Symbiosis. Buchner and his school look upon these cell-inclusions as fungi of unknown classification. However, a smear from such a tumour when stained with Giemsa imparts the cell-inclusions the plasmatic blue colour,

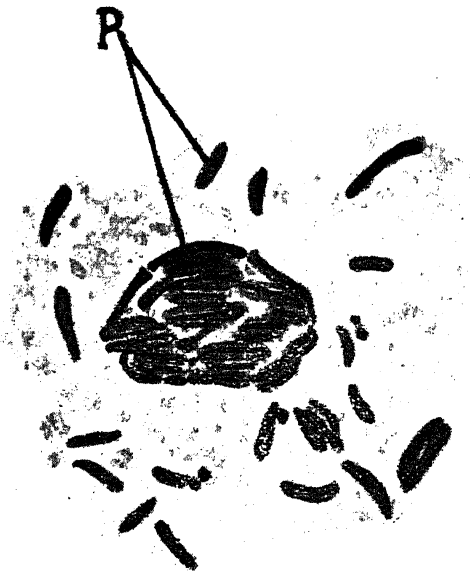


FIG. 4. P. Unknown Cell-inclusion.

which is distinct from the red nuclear stain given to bacteria. Fig. 4 represents such a

smear. The cell-inclusions are very near in shape to those figured by Buchner for *Aphrophora alni* (Fig. 9 c, p. 112, *Z. f. Morphologie und Ökologie*, 1925).

The work was done in the laboratory of Dr. S. Mahdihassan and my thanks are due to him and to Professor B. K. Das.

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October 18, 1945.

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PALÆOLITHIC SITES IN THE NELLORE DISTRICT

In *Current Science* for February 1940 I had the privilege of making a preliminary statement about Palæolithic Sites in the Nellore District. I wish to report a site recently found which is of special interest because it seems to offer a geological clue to the age of stone-age tools in this part of India. The Madras trunk road, south of milestone 149, crosses an artificial drainage channel which serves to divert rain water into a tank east of the railway line which here parallels the highway at about a half-mile distance. The area between road and railway is reserved forest, a sparse jungle of thorny shrubs. From the channel the surface of the ground slopes very gently upward to the south toward a low ridge of laterite. Northward from the channel the surface is nearly level with, in places, drainage toward the channel. Material removed from the channel is heaped on either side. The excavation cuts across a deposit of stiff red clay which varies in thickness from a few inches to as much as eight feet. Beneath the clay is a thin layer of laterite overlying greatly decomposed granitic rock. In this channel we have found 140 stone-age implements of which the greater part are listed in Memoir No. 68 of the Archæological Survey of India.* A considerable number have been found *in situ* in the red clay at depths of 2 or 3 feet. But recently I found a fine quartz implement imbedded in this clay at no less than seven feet below the surface of the surrounding jungle floor. A geologist competent to study the terrain and discover the source of the clay and estimate its rate of deposit might have a valuable clue to the antiquity of stone-age man in this area. I have seen no place where an equal opportunity is offered and hope someone will be interested to look into it.

The implement is a *coup de poing* made by crude primary flaking on a quartz cobble stone. It is 11.3 cm. long, 8.3 cm. wide and 4.8 cm. thick. It has a heavy pebble butt and might be classed as Acheulean in type.

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October 17, 1945.

* *The Manley Collection of Stone Age Tools*, by A. Aiyappan and Frank P. Manley.