VII.—*Notes on Maulmain and Neighbourhood.*

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Maulmain stands on the Salween, about 20 miles from the sea, at the confluence of the rivers Gyne and Attaran. The influence of the tide is observed for 40 miles above Maulmain. The country is an alluvial plain from which rise numerous precipitous limestone rocks with many caves, and hollowed at the base by the action of the sea.

The rocks near Maulmain are crystalline, with a few doubtful traces of fossils, but at the Duke of York's Nose, a remarkable mountain about 40 miles from Maulmain, I observed some very beautiful Brachiopoda and Polyzoa. These limestones belong to the Carboniferous period. Here also I noticed a rock about 200 feet high shaped like an hour-glass, rising abruptly from the plain about 2 miles from the chain of limestone hills of which the Duke of York's Nose forms a part. This alluvial plain has been formed almost within historical times, but I am inclined to think that it is older than that of Regu; the vegetation is more varied, as well as the fauna. One point that struck me at once was the number of land shells; the rice-fields are covered with them, they consist of species of *Conovulus* and *Cyclostoma* and others that I did not determine. At Rangoon I have only found a large *Cyclostoma* on the laterite ridge, but mollusca without shells are pretty common. This may be due to the extremely small quantity of lime in the soil about Rangoon, in the samples I have analysed it seldom reaches one-tenth of 1 per cent.

Maulmain is remarkable for the number of hot springs in the neighbourhood. I made an analysis of a small sample of one of these from Belongzoon or Ogre's Island opposite Maulmain. It is a pool about 4 yards in diameter, and from 3 to 4 feet deep; gas is constantly bubbling through it. Its temperature is about 130° Fahr. Its composition most nearly resembles that of the Harrowgate water, except that it does not contain unoxysided sulphur. Sp. gr., 1010·3; temp., 130° Fahr.

Grammes per litre.

CaCl ₂	.	.	.	.	2·218
MgCl ₂	.	.	.	.	0·885
NaCl	.	.	.	.	10·446
KCl	.	.	.	.	0·344
CaCO ₃	.	.	.	.	0·175
Fe ₂ O ₃	.	.	.	.	0·002
SO ₃	.	.	.	.	0·109

14·179

An important point in connection with tropical waters is the comparatively large amount of silica they contain in a soluble form. This has also been observed in America. It shows the decomposition of felspathic rocks proceeds faster when the temperature is high, and thus we cannot argue from the present rate of decomposition in temperate regions to what it was when the temperature was higher, as in the interglacial periods. No doubt the property which laterite has, of hardening when exposed to the air, is due to the soluble silica dissolved in the water which permeates it passing into the insoluble form and binding the grains of sand together.