MALAM KUATER - ABSTRACTS AND SUMMARY OF PAPERS

T. SUNTHARALINGAM: Quaternary Geology Study of Peninsular Malaysia by the Geological Survey of Malaysia.

The Quaternary Geology Division was established in 1977 in order to map the unconsolidated to semi-consolidated sediments and to indicate the areas of economic importance.

The technique of mapping Quaternary deposits is different from that of consolidated deposits. In the office a proper literature survey is carried out besides studying topographic maps, aerial photographs and prospecting or other drilling records. Then geophysical methods using seismic or resistivity techniques are employed to find the depth of bedrock and the various stratigraphic units. On completion of the geophysical survey the most suitable drilling equipment is then considered for further work. Initially, shallow holes (up to 20 m depth) are drilled using hand augers and followed by deeper holes using hand banka and semimechanized banka drill.

The drilling data are recorded into log sheets in accordance to a standard description format prepared by the department. Samples from suitable and distinct layers are collected for pollen analyses, fossil studies, grain size and heavy mineral analyses. Suitable samples are sent overseas for radiocarbon dating.

From field and laboratory information reports, geology maps, cross-section and other figures are prepared e.g. isopach map showing thickness of alluvium. It is a standard practice to plot tin results per 1.5 m section alongside the boreholes.

Systematic mapping on a scale of one inch to the mile from the Taiping to Lumut area indicates the presence of three stratigraphic units. They are the Simpang Formation which is the oldest and is equivalent to the Old Alluvium of Walker (1955), the Gula Formation which is an estuarine to marine clay with subordinate sand member and the continental Bruas Formation which is equivalent to the Young Alluvium of Walker (1955). The first edition of the Quaternary geology map of Peninsular Malaysia (1 inch to 500,000) is being prepared based on these formational units. An isopach map on a similar scale is also being prepared to indicate the thickness of alluvium. Information collected about the Quaternary deposits have been utilised by hydrogeologists, engineers and planners for their studies.

Finally it must be mentioned that the division in cooperation with other divisions of the department from time to time prepares economic geology reports especially pertaining to placer tin, clay and other industrial minerals for public consumption.

S. PARAMANANTHAN and S. ZAUYAH: Soil Scientist View of the Quaternary of Peninsular Malaysia.

The Quaternary of Peninsular Malaysia can be separated into eight distinct pedological units. Six of these units have been recognized by soil scientists since soil surveys began in Peninsular Malaysia as early as the 1950's. Two other units were only recognized in the last two years. These eight pedological units are as follows:-

1. *Reworked Lateritic Deposits (Older)* P_3T
2. *Reworked Lateritic Deposits (Younger)* P^3_2T
3. *Older Alluvial Deposits* T^2_3
4. *Sub-Recent Alluvial Deposit* T^3_2
5. *Recent Alluvial Deposit* T^2_1
6. *Marine/Estuarine Deposits (Clay)*
7. *Marine/Estuarine Deposits (Sand)*
8. *Organic Deposits*

The main features of each of these pedological units are given in Table 1 below. Their approximate geological ages are also suggested. It must be pointed out that these ages are yet to be confirmed.

Table 1: Characteristics of the Pedological Units of the Quaternary of Peninsular Malaysia

Pedological Unit	*Characteristic Features*	*Possible Geological Age*
Organic Deposits	*Deep organic deposits of brackish water origin. Large pieces of undecomposed logs often present.*	*Recent*