

THE OCCURRENCE AND QUALITY OF GEM AND ORNAMENTAL STONE MATERIALS IN PENINSULAR MALAYSIA

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This paper gives a brief account of the occurrences and quality of gem and ornamental stones found in Peninsular Malaysia. Most of these minerals of gem quality are found in mines and quarries. Those found in alluvial tin mines represent the residual products of weathering of mineralised country rocks. Owing to their hardness and resistance to weathering, these minerals have withstood decomposition.

The most important parent rock of these gemstones is the pegmatite. It is the source of most of the topaz, beryl, garnet, tourmaline, quartz crystals, sapphire, feldspars and cassiterite. Others are found in metamorphic rocks such as gneiss, schist, marble and skarn rocks, while opal, agate and chrysoprase occur as cavity fillings in sandstone and volcanic rocks.

A brief account of the most important occurrences is given in my paper entitled "Some Gem Materials of Peninsular Malaysia" in the 1972 Annual Report of the Geological Survey of Malaysia. The present report updates the list to include minerals discovered since then. It is hoped that with better knowledge of the gem minerals available in this country, a viable gemstone industry based on local raw materials would be developed in the future.

Since sapphires, rubies, spinels and garnets are associated with Tertiary basalts in Thailand, a search for such minerals in the Tertiary basalts of Kuantan and Segamat could prove to be fruitful.