

Traditions in Mineral Resource based Industries

The theme of this Vidurava edition is on the mineral resources of Sri Lanka. It is indeed astonishing that a small island nation like Sri Lanka should be endowed with such a vast array of extractable basic mineral constituents and elements from naturally occurring composite deposits.

Although Sri Lanka may lack the financial strength and technological sophistication to transform some at least of the primary raw materials into secondary and tertiary high value elemental products, the country has not been spared of being in the limelight for millennia as a nation blessed with natural mineral resources. It is hoped that before long, with new tools such as nanotechnology at our disposal, Sri Lanka will be able to break into the competitive international markets with advanced and superior quality value added products from our mineral resources.

One of our contributing authors to this edition has declared that, ‘nowhere in the world are so many gem varieties as occurring within such a small area of land’. This is no surprise, since no historical or philosophical rendering on Sri Lanka had ever missed a reference to this unique feature of our island nation since the dawn of the Christian era.

It is significant to note that Mohammedan pilgrims arriving from West Asian countries between the 4th and 12th Centuries AD had noticed the free and widespread surface occurrence of precious stones in the vicinity of the ‘Mountain of Serendib’ (Adam’s Peak), which they faithfully

believed to be the crystallized tears of their patriarch Adam, and of Eve, who had been conceived to have wept for centuries while taking the last lingering look at the abodes of paradise.

Let us now look back at a well known traditional mineral resource based industry that had its beginnings around the 4th Century BC, and which according to Dr. Ananda Coomaraswamy, ended unceremoniously in the first decade of the 20th Century. It is the iron smelting industry, where archaeological as well as scientific evidence had shown the existence of at least three ancient technological development phases, of which one located in the upper peneplains of Samanalawewa had demonstrated the feasibility of employing low cost energy from wind speeds, to generate the required smelting temperatures.

Currently there is no precise information of the existence of an industry extracting iron from crude iron ore. Apparently the high unit cost of energy is said to be the main reason for its absence. However, we must not forget that the ancient iron masters of Samanalawewa had perfected the art of low cost iron production with wind speeds, and had exported tons and tons of refined iron and high carbon steel (“Monsoon Steel”) to West Asia from around 7th to 12th Century AD. These great iron technologists may have taken decades or even centuries to perfect an art that had been elusive and not found to be feasible elsewhere in the world.