

Another Glimpse of Engineering Geology – A Pictorial Presentation of Limestone Bedrock Pinnacles

By: Assoc. Prof. Tan Boon Kong

While clearing up the drawers and cabinets in my office recently, I came across some old photographs depicting limestone bedrock with its myriad of karstic features in the Sunway area, now Bandar



Figure 1: Limestone pinnacles exposed by alluvial mining



Figure 2: Limestone pinnacles during quarrying activities

Sunway. Instead of letting these old photographs fade into oblivion (and literally fade away their colours), I thought it might be useful to put them in print permanently so that the Engineers, particularly the young Engineers, can benefit from them. Hence, this short article/note in the IEM bulletin. Readers might also want to recall the previous short article on Engineering Geology & Rock Mechanics in the June 2005 issue of the IEM bulletin, Tan (2005).

These photographs were taken when the Sunway area (then known as Sungai Way) was still operating alluvial tin mining,

followed by quarrying activities on the limestone bedrock stripped of its original alluvial cover. During those days, the author had the pleasant task of taking several geotechnical engineers and engineering geologists, both local and from overseas, to visit and marvel at these karstic features. Some of these site visits were conducted in conjunction with regional or international conferences on Engineering Geology or Geotechnical Engineering held in Kuala Lumpur. For example, karst geology and foundation in limestone featured prominently in the two past SE. Asian Geotechnical Conferences held in Kuala Lumpur in 1985 and 1996. The parcel of land has since been developed into the popular water theme park (Sunway Lagoon)-cum-township (Bandar Sunway), a tribute indeed to the owner and developer of this parcel of land – a classic multiple land use success story!

While many of the limestone pinnacles and associated karstic features have since been lost due partly to quarrying activities and also later urban development, some have been deliberately preserved and incorporated into the Sunway Lagoon water theme park for aesthetics purposes - yet again “hats off” to the planners and developers of the water theme park. As a result of this preservation effort, permanent exhibits of some of the natural limestone pinnacles and associated karstic features are “displayed” within the Sunway Lagoon area (not to be confused with the artificial or man-made “rock formations” in the same area). ■

REFERENCE:

Tan, B.K.(2005). *A Glimpse of Engineering Geology and Rock Mechanics in Geotechnical Engineering in Malaysia.. JURUTERA, June 2005, p.18.*



Figure 3: Limestone bedrock arch showing large solution cavity or channel



Figure 4: Close-up of top of limestone pinnacles. Left to right: Dr Chan S.F., Chan Y.C., the late Prof. Chin F.K., Tan B.K. (photo courtesy of Chan Y.C., GEO, Hongkong)



Figure 5: Close-up of limestone pinnacles viewed from the side