CAVES AND CAVING IN ASIA

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The caves of the Asian continent are little-known and rarely reported in the English-language speleological literature. I was extremely fortunate, while in Asia for professional reasons, to have some chance to meet with speleologists there and to visit a few of the cave areas. This paper will briefly outline some aspects of this visit and as a starting point for further enquiry, will give some of the useful references to literature.

Japan is the only Asian country with well organised speleological societies as we know them. The Speleological Society of Japan was founded by Professor Masuzo Ueno in 1954 and was the first of these. It is a scientific society, consisting primarily of biologists and others concerned with the scientific study of caves. The Japanese Association for Caving is much more concerned with exploration and with developing techniques of exploration, while localised societies exist in a number of areas, often associated with universities. A great deal of exploration and high standard cave survey has been accomplished. So far some 700 caves are known, more than 500 of which have been subject to reasonably thorough mapping and scientific study.

I was fortunate to be able to meet Prof. Ueno, formerly professor of Zoology at Kyoto University and now Professor Emeritus of that institution. His son, Dr. Shun-Ichi Ueno, currently secretary of the Speleological Society of Japan and a world authority on Trechine beetles (many of which are troglobitic in Japan) spent several days taking me to see the Akiyoshi-dai Karst area, which is a truly remarkable area. We were also accompanied by Kiyoshi Mizushima, who has led a number of expeditions in recent years gradually going deeper and consistently extending the depth record for Japan.

The Akiyoshi-dai area is a karst plateau of about 130 sq. km. in area, with extremely well developed karst landscape features, including poljes, dolines, and lapiaz. The upper surface of the plateau has some 10,000 dolines! Exploration so far has revealed about 130 caves, but many more obviously remain to be investigated. The area is largely conserved as a quasi-national park and the conservation of the park area caves is ensured for all time, although the area outside of the park is being exploited by quarrying. Several of the major caves, notably Akiyoshi-do, a magnificent cave of about 2 km., are

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open to public inspection, usually on a self-guiding basis. Some 1½ million tourists per annum pass through this one cave alone, virtually all of whom are Japanese. The profits from the development of these caves have financed the erection and construction of a fully staffed science museum on the plateau with an extensive research programme.

The Director of the museum, Mr. Isao Kawasaki, is a geologist concerned with elucidating the geological history of the plateau, while the assistant director, Mr. Tadashi Kuramoto, is a biologist who has been studying the life cycles of troglobitic species found in the caves as well as some preliminary bat investigations. Other researchers are concerned with the palaentology and archeology of the area, while the museum also carries out ecological studies of the surface fauna and flora of the plateau. They have a small but well equipped underground laboratory in a small cave named Komori-ana. The museum has also done a great deal to foster the exploration of the area and makes its transport, equipment and other facilities available to the speleological societies.

This visit was one of the most pleasant three days of my entire tour. Those who saw my photographs at the ASF Conference will appreciate the sheer beauty of the area; biologists will appreciate the fascination of seeing dozens of species of troglobites, many of them in agglomerations of thousands of individuals; but only those who have experienced the real service of a Japanese Ryokan (hotel) and the luxury of the bathhouse will really appreciate these aspects. I am convinced that the greatest improvement which would be possible in Australian caving (apart from bigger caves) would be a Japanese bathhouse in every caving area!

Malaysia has no speleological organisation as such, but a considerable amount of scientific research is conducted in relation to the caves. I was only able to visit the famous Batu Caves on the outskirts of Kuala Lumpur, well-known to most Australian cavers from the excellent film produced by Lim Boo Liat and the Malaysian film unit. It is tragic to see the complete irresponsibility about conservation in this country, where not only is the Batu massif being gradually mined away, but where new mining operations are developing, apparently without any restriction, in the nearby Templar national park. Apart from Lim Boo Liat, all of those I met who were interested in the caves were English or American workers, many of them in Malaysia on limited term stays.

In Thailand, the fates conspired against me, in spite of all my efforts, and I was quite unable to get to any cave area - Bangkok itself fortunately offered some enjoyable substitutes. However, I did meet Fred Stone, a member of NSS, who has walked over and caved under most of Asia. Fred showed me maps and described to me the fantastic karst plateau of S.E. Asia - from Burma and Northern Thailand, across Laos, covering much of Southern China, and the northern fringe of Vietnam. This area is typical tropical limestone with both towerkarst and cockpit karst. Fred has entered caves in which he has walked - or run or swum - for up to twelve miles with no sign of an end or diminution in the cave. Many of them are so immense that one could drive through if one could only drive to them. (You never can!). Unfortunately, much of this area is politically inaccessible or unsafe at present. Even those parts which are accessible would demand of any expedition some really competent local organization of transport and supplies and familiarity with local languages (usually tribal) and customs, so it is not easy. Fred feels strongly that this area will ultimately reveal caves which will dwarf the present big caves of the world.

The Philippines also contrived very effectively to place their best caves country in pretty inaccessible spots, so I only saw the Montalban caves near Manila. Here there seems to have been no speleological interest at all. Montalban revealed the fascinating spectacle of a major storage dam constructed across a gorge in limestone - accelerated cave genesis, complete with resurgences under quite a head of pressure! One of the engineers who accompanied me to the site was very interested to hear that water would actually slowly dissolve limestone! The one cave entered was reputedly the famed bat cave of Montalban - it wasn't - and was primarily of interest in that the floor was well layered with unexploded shells, cordite, etc. On returning to surface, we reached the entrance just in time to see the bat flight from a cave some 150 ft. above our heads - a seemingly solid stream of bats, some 50 ft. in diameter and two miles in length.

Although able to do some caving in New Guinea, I will not comment here on this as I cannot add anything of real significance to what has already been included in the A.S.F. Handbook.

To sum up - with the exception of Japan, there is virtually no speleological organisation; there is an increasing amount of research in other countries, but almost entirely by visitors; there is incredible potential for both research and exploration, but this will require really good organization if it is to achieve anything of note.

Some References:

For Japan, see Uéno, M. (1964). The Present Situation of Speleology in Japan, in Konan Womens' College Researches 1:253-274, or Nicholas, G. (1966). Dr. Masuzo Ueno and Japanese Cave Biology, N.S.S. News 24:171-173. Most other English language literature is confined to specialised discussion of research work. The Speleological Society of Japan is now also greatly involved in studies of South Korea, the results of which are being published regularly in the Bulletin of the National Science Museum of Tokyo. Another neighbouring area is that of Okinawa - see Rhodes, D. & J. (1967), The Caves of Okinawa, N.S.S. News 25:127-133. A recent paper which deals with part of the great karst area of S.E. Asia and which contains an excellent bibliography (mainly of Chinese, Russian, or other European languages) is Silar, J. (1965), Development of Tower Karst of China and North Vietnam, N.S.S. Bull. 27:35-46. Malaysia is well covered by Vol. 19, No. 1 of the Malayan Nature Journal which is devoted to cave studies; Sarawak and Sabah are covered in almost unbelievable detail in Wilford, G.E. (1964), The Geology of Sarawak and Sabah Caves, Bull. 6 of the Geological Survey, Borneo Region of Malaysia. For Indonesia, see Balázs, D. (1968), Karst Regions in Indonesia. Karst-és Barlangkutatas 5:3-61

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