

AUSTRALASIAN TEKTITES FOUND IN GUANGXI PROVINCE, CHINA. H. Povenmire¹, W. Liu², and L. Xianlin³, ¹Florida Institute of Technology, 215 Osage Drive, Indian Harbour Beach FL 32937, ²Campus Box 172, University of Colorado at Denver, Denver CO 80217, ³Guilin Institute of Technology 12 Jiangan Road Guilin, Guangxi 541004 China.

Abstract: Newly confirmed Australasian tektites have been found in Guangxi Province, China. This is some 500 km NW of Guangdong and represents an important extension of this strewn field.

Since about 1960, it has been accepted that the Australasian tektite strewn field covered at least 10% of the Earth's surface from Hainan Island to south Australia. About 1993, through the microtektite work of Glass and Wu it was realized that this strewn field went to Africa and south of Tasmania (1). This would have pushed the percentage of the Earth's surface to more than 20%. Their work did not include Tibet or much of China. About 10 years ago, tektites reported to be from Tibet began to appear on the commercial market but without proper documentation proving that they were, in fact, from the northern plateau of Tibet (2) (3). The reported areas are in the form of a rough triangle bordered by three lakes, Zilling, Bam, and Chibchang. It should be noted that different sources have different spellings for these locations. The petrology and ages of the specimens tested showed that they were associated with the Australasian strewn field. While researching the Tibet tektites, I found references to tektites found near the Ganzu Province. They are supposed to be in the Provincial Museum of Qingyang. These are found at longitude 106° E. and latitude 36° N. This is more than 1100 km farther north than other reported tektite finds. These are likely authentic but absolute confirmation has not been made.

For many years, tektites have been available from the coastal areas of Guangdong, China. These are called Lei-gong-mo which translates, "Thunder God Ink Black Stone." These tektites are well documented. There are also apparently reliable reports of microtektites being found in a

loess section in Shaanxi Province about 1600 km north of the South China Sea. We now have reliable documented specimens from several new locations 80-500 km northwest of Guangdong, China. These new locations are in Guangxi Province. The specific areas are at Bobai, Guingang, Jingxi and Baise Counties (4). These are near longitude 106° 38' E. and latitude 24° 53' N.

These recently discovered tektites are greenish brown to black in color. They tend to be found in a particular stratigraphic unit above bauxite deposits. The various shapes include spheres, ellipsoids, dishes, dumbbells and teardrops. They are found in sizes of up to 40 mm, slightly smaller than the Guangdong specimens. Most of the specimens found are well preserved with a fresh tar like luster, with little abrasion or erosion. Bubbles of 0.1 - 4.0 mm are present and they have the normal surface features associated with Australasian tektites.

If these new discovery locations are well documented as it appears they will be, then we must assume that the total area of the Earth's surface covered by this strewn field may be in excess of 30%. The Australasian event must have been much larger than previously supposed. This leads us back to a very basic question and that is, "Where is the 100 km crater?"

References: [1] Glass, B. and Wu, J. (1993) Coesite and shocked quartz discovered in the Australasian and North American microtektite layers *Geology* 21 p. 435-438. [2] Povenmire, H. (1996) Tibetan Tektites-Authentic? Abstracts: 59th Annual Meteoritical Society July 24 Vol. 31 p. A111. [3] Povenmire, H. and Blood, M. (1997) Tibetan Tektites LPSC XXVII Houston March p. 1133 [4] Liu, W. and Xianlin, L. (1998) New Data on Indochinite Tektites in China Personal Communication and In Press.