A LAYERED TEKTITE FROM THE CENTRAL AMERICAN STREWN FIELD J. Cornec[1] , L. Cornec[2] and H. Povenmire[3] [1,2] 1867 S. Marion St., Denver, CO 80210 jcornec13@gmail.com, [3] Florida Institute of Technology, 1845 Charlesmonte Drive, #E, Indialantic, FL 32903 katiehal1@yahoo.com .

In 1992, A. Hildebrand, et al. published an abstract in the LPSC Science Conference about apparent tektites found in the ruins of Tikal, Guatemala. This was a mystery for several reasons. Out of 13 tektites reported found, 10 had disappeared. The remaining three did not show the classical splashform shapes like teardrops and dumbbells. They were not found in situ. In 1990, Jean Cornec received a tektite from western Belize and a 40/39Ar age of 820,000 years B.P. was obtained by Glen Izett. This is slightly older but very close to the accepted age of the Australasian tektites which are approximately 786,000 years B.P. This age was later revised to approximately 790,000 years by Vera A. Fernandez in 2012. There was also no known crater or any other tektites found indicating a strewn field. The follow up work was published in a major article with electron microprobe results and 40Ar/39Ar age confirmation. Supporting the tektite theory was the low SiO2 content of 62% which separated them as a new group from the Australasian tektites with approximately 73% SiO2. They also had an extremely low H2O content of approximatley 80 ppm which separated them from terrestrial obsidians.

About 2004, Jean Cornec recovered a unique tektite from the Santa Familia, Belize area. It displayed occasional, curved, thin layering, tiny amber colored inclusions visible under a hand lens. This tektite was submitted to John Stock of the Colorado School of Mines for electron microprobe, scanning electron microscopy (SEM). The following are the preliminary results in weight percent:

1. SiO2	52.0	4. CaO	11.0
2. FeO	15.0	5. K2O	7.0
3. Al2O3	12.0	6. TiO2	2.0

A separate X-ray fluorescence analysis showed traces of Ag, Au, Th, Cr, Zr, Rb, Sc, Ba, Cu, Ni ,Zn, Mn, V, Cs, Te, Sn and W.

This tektite is small, weighing approximately 3.9 grams. It has the dimensions of about 15 x 13 x 11mm. It does not have the classical shape of a splashform like a dumbbell or teardrop. When examined under high magnification, it shows thin layering like a Muong Nong-type tektite.

In 2006, V. Leo Kowald described a possible impact crater at Pantasma in northern Nicaragua in the Jinotega District which is about 140 km north of Managua. It is named Pantasma and it is approximately 12 km in diameter. In July 2009, an expedition led by Astronic (Nicaraguan Scientific Association of Astronomers and Astrophysicists) reported it as an impact crater. However distinctive shock-metamorphic marks have not been identified to date.

An articled titled "Belize rocks! The Mysterious Stones That Fell From Heaven" was published in Belize's News Exchange Magazine (Issue 9, 2012). This article described a small number of tektites found in the San Ignacio area of western Belize close to the Guatemalan border. Now, we had "in situ" tektites! We also had multiple confirmations of new specimens from geologists Andre Cho and Doug Milham.

Two small documented specimens were collected by J. Cornec and it was decided to redo all the previous analytical work as a blind study to add confirmation of the previous studies. These specimens were submitted to R.S. Harris of Georgia State University for electron microprobe analysis. Preliminary results indicate they are essentially identical to the Tikal specimens. Below are the electron microprobe results:

SiO2	62.49	CaO	4.47
TiO2	0.98	MnO	0.17
Al2O3	17.58	K2O	1.74
MgO	1.76	Na2O	3.37
FeO	6.45	Total Wt %	99.01

In early 2011, Brian Burrer, a veteran Bediasite hunter from Texas led three expeditions that went to the San Ignacio area in Belize and during several weeks of field work collected about 80 new specimens and purchased several more from the local farmers. These came from an area of about 300 square miles indicating that with persistent field work, more specimens could be found. Most of the collected specimens were small and while few of them showed the classical splashforms of teardrops or dumbbells, many were close enough to be convincing that these were genuine tektites. This is the World's fifth confirmed tektite strewn field and the first one found in the past 75 years.

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