

On Stones that Fall From Heaven and the E8-Symmetry Universe that Existed Before the Big Bang

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Abstract: In 1803 the L'aigle meteor fall was studied by the physicist Jean Baptiste Biot in France who concluded that it was of extraterrestrial origin but by 1930 meteorites were generally thought to be of terrestrial volcanic origin. Similarly, in the 1960's group theory and symmetry were thought to be of overriding importance in developing new physical theories but this has fallen out of favor and has resulted in the present-day disbelief that our universe existed before the big bang and could be governed by symmetry of any sort.

The quotation attributed to Thomas Jefferson, "I'd sooner believe that two yankee professors would lie than believe that stones fall from heaven" comes to mind and was typical of the thinking of a few hundred years ago as I contemplate the knowledge we have today. Today however, we still believe that our universe could not have existed before the big bang and that the big bang could not be an E8 symmetry-breaking event occurring within an existing universe.

To dispel this false belief and to move ahead we need something new. In the case of meteorites it was the showing by Barringer (a mining engineer, not a physicist) that no large nickel-iron body remained in the crater and by others that it had evaporated away. The needed energy could not have been produced volcanically¹, as was the then accepted theory (including by physicists) into the 1930's. In the case of E8 symmetry to move ahead it may well be the discovery of the tetraquark². This 4-quark particle seems to have no purpose other than to alert mankind that 248^3 different quantum particles are in our universe and thus that E8 symmetry is very important to mankind and symmetry generally is important, as Eugene Wigner realized over 50 years ago. The realization that this is true, even though the E8 symmetry group has only a single member, will have to be faced even though this fact is very disturbing to many scientists.

A recent publication⁴ indicates that an eternal steady state cyclic universe such as I am proposing is completely viable.

1. Franz Brandstatter, Ludovic Ferriere, Christian Koberl, "Meteoriten | Meteorites"
2. "The Dawn of the Tetraquark", Physicscentral, (2014)
3. A. Garrett Lisi, "An Exceptionally Simple Theory of Everything", Wikipedia, (2007)
4. Bill Porter, "An Eternal Steady State Universe", ViXra 1412.0209 (2014)