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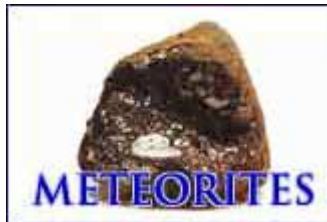
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Fossilized Bacteria Found in Ancient Meteorite

By Michael Paine
Special to *SPACE.com*
posted: 07:51 am ET
21 February 2000

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Russian scientists claim to have discovered fossils of primitive extraterrestrial organisms in a meteorite thought to be a leftover from the formation of the solar system.

Similar theories have met with skepticism in the past and there are doubts about the latest claims. It seems that garden-variety microbes love to feast on these carbon-rich meteorites.

"Since these objects look so much like the remains of terrestrial organisms, it seems most likely that they *are* remains of terrestrial organisms."

..... Allan Treiman -- Lunar and Planetary Institute, Houston

Last year, at a conference on Astrobiology held in Denver, Dr Stanislav Zhmur and colleagues from the Russian Academy of Sciences revealed that they had found what looked like fossilized microorganisms in fragments of several meteorites that fell on the rural town of Murchison in South-East Australia in 1969.

Their electron microscope pictures and comments were recently posted on the web pages of "Cosmic Ancestry" -- part of the *Panspermia* website, devoted to research and conjecture about the spread of life between star systems.

Even to the un-trained eye the objects in the pictures look like organisms.

"Since these objects look so much like the remains of terrestrial organisms, it seems most likely that they *are* remains of terrestrial organisms," said Allan Treiman from the Lunar and Planetary Institute in Houston. "Terrestrial bacteria and fungi infest meteorites almost immediately on landing on Earth, take up residence and consume whatever they can. The fungi worm their way into the meteorites along cracks and pores, and 'burrow' into the carbonaceous material as they eat it".

Treiman has also been critical of the claims about microfossils in the famous martian meteorite ALH84001.

Dr Andrew Steele from the University of Portsmouth told *SPACE.com* "meteorites become contaminated with Earth life within days of landing, yet some of the Murchison meteorites were in the open for four to five months before being collected."

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Added Steele, "electron microscopes and morphology [comparing the shape of organisms] are powerful tools, but they are not conclusive. More detailed biological tests of other meteorite specimens point in one direction -- terrestrial microbial contamination."

Last year Steele found evidence of infestation by fungi and bacteria in another piece of Murchison meteorite. Crystals had even started to grow over some of the microbes while the rocks had been in storage. In more extreme cases this mineral growth could possibly be mistaken for fossils.

Dr Matthew Genge, a meteorite researcher from the Natural History Museum in London, is also skeptical.

"Murchison meteorites are even more likely than most to have experienced contamination since they fell in a farmyard and, reputedly, at least some of the stones had to be recovered from a ditch filled with manure," Genge said, adding that "any meteorite recovered outside Antarctica has had ample opportunity to become contaminated. Those in museum collections have furthermore been handle many times."

Treiman wrapped up the case for the negative: "my opinion [for what its worth] is that the meteorites are infested with Earth bacteria -- the meteorites are not infested with extraterrestrial bacteria. The issue of life in the solar system is fascinating, but [like all good detective stories] will have lots of false leads."

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