## "LIFE and SPACE" ECLECTIC

APRIL 01'2005

Hello to everyone from Antonina!

Here we are, in April the 1<sup>st</sup>, when truth can be mixed up with silly jocks. But remember we are part of the Universe where among milliard of planets in milliards of galaxies there is possibility of life in forms that we couldn't imagine but couldn't stop to think about...

## **DISCUSSION**

Personally, I have mixed feelings about modeling experiments developed by researchers using Earth and Space as macro laboratories. One of examples is Deep Impact Experiment involving two parts: a "fly-by" spacecraft and a smaller "impactor." The impactor is on the way and will be released into the comet's path for a planned collision on July 4'2005. The crater produced by the impactor may be as large as a football stadium and two to 14 stories deep. Ice and dust debris will be ejected from the crater, revealing the material beneath. The fly-by spacecraft will observe the effects of the collision. NASA's Hubble, Spitzer and Chandra space telescopes, along with other telescopes on Earth, will also observe the collision (for more information visit <a href="http://www.nasa.gov/deepimpact">http://www.nasa.gov/deepimpact</a>).

My mind couldn't stop think about what a great experiment might be Tunguska Event *if* it was the result of similar investigation designed by some weird (extraterrestrial?) intellect...

## **TEST**

Test your reading comprehension by reading the story below and answering the questions that follow.

#### **Meteorite from Mars**

WASHINGTON (AP) - A massive explosion on Mars millions of years ago blasted rocks into orbit and some of that material landed on Earth, researchers say. Kurt Marti, a planetary chemist at the University of California at SanDiego, said that a 40-pound meteorite that landed in Africa 32 years ago has been identified as a bit of Mars. The meteorite was observed, as it crashed to Earth in Nigeria in 1960 and was quickly recovered. It was named Zagami for the region where it hit. A study of the chemistry of Zagami was published in the journal Science. Marti, the study's lead author, said that gas trapped in bubbles within

glass inside the meteorite has been chemically matched with the atmosphere composition found on Mars by the Viking spacecraft. Marti said it's not known where Zagami originated on Mars, but he said there are lots of candidate sites. "Mars is filled with craters created by collisions," he said. Astronomers are now searching Mars by telescope in find sites with minerals like those in the Zagami meteorite. Marti said it is assumed that the explosion that ejected Zagami was caused by a large asteroid or comet slamming into Mars. "It would require a very major collision," said Marti. "It is a very rare every. "Heat created by the collision melted rock that cooled quickly into glass, he said, and some of the Martian atmosphere was trapped and formed bubbles within the glass. IT is this gas that has been analyzed and compared with the chemistry found in the Martian atmosphere by the Viking landers in 1976.

- 1. An explosion on Mars, millions of years ago, caused:
  - a) rocks to be blasted into space
  - b) chemical changes on Earth.
  - c) many problems for scientists.

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- 2. Rocks from Mars have:
  - a) damaged spacecraft.
  - b) b) landed on Earth
  - c) been founded by Kurt Marti.
- 3. Meteorites, or chunks of matter, from Mars have landed in:
  - a) Nigeria
  - b) Antarctica.
  - c) both a and b are correct.
- 4. The meteorite that landed in Africa:
  - a) weighed 32 pounds.
  - b) was named Zagami.
  - c) was not discovered for a long time.
- 5. According to the article, the name Zagami refers to:
  - a) an African author.
  - b) a scientific journal.
  - c) a place in Nigeria.
- 6. Scientists study the chemistry of meteorites to find out:
  - a) where other rocks have landed.
  - b) what other rocks are made of.
  - c) when the next planet explosion will occur in space.
- 7. Kurt Marti, a planetary chemist, reported that the gas trapped inside Zagami:
  - a) is similar to Martian atmosphere.
  - b) can be seen with special glasses.
  - c) is impossible to study.
- 8. Marti believes the explosion took place on Mars:
  - a) after the Viking spacecraft landed.
  - b) when a comet or asteroid hit the planet.
  - c) about 33 years ago.
- 9. Glass formed inside the meteorite when:
  - a) the rock landed on Earth.
  - b) chemists heated the rock.
  - c) Martian rock melted and then cooled quickly.
- 10. The collision, or crash, that occurred on Mars:
  - a) takes place only once every 20 years.
  - b) is a very unusual event.
  - c) was caused by cosmic rays.

Answer Key:	
1) a 2) b 3) e 4) b	6) b 7) a 8) b 9) c
5) c	10) b



Here is the 1979 expedition to Zhamanshin crater. We are going to field trip by car not by airplane.

# Field trip, May'2005:

We are looking forward to visit (possible) meteorite crash place in North of Ontario, which is close to the Carl Myer's camp.

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