



## Brainstorming with George (Kurti)

### **The Meteor Crater of Arizona**

*Eu am fost acolo si am ramas absolut cu gura cascata, parca eram undeva pe Luna, totul jur imprejur kilometri intregi de teren arid lipsit de orice vegetatie. Si craterul e enorm si de-a dreptul fioros.*

The beautiful state of Arizona, the state of the majestic cacti is famous for many sightseeing places, such as Scottsdale – the plush neighborhood of Phoenix, Sedona with it's exquisite red-rock formations, and then, of course, the one-and-only Grand Canyon.

But unfortunately almost nobody knows about the existence of another Arizonian wonder huge crater left by the impact of a huge meteorite many, many years ago. Most of visitors to Arizona don't see it because they land in Phoenix, rent a car, rush up north to Sedona and then head to the canyon, the Grand Canyon.

But when we visited Arizona, I did my homework beforehand, so we were fortunate to see this other wonder of nature.

The **Meteor Crater** of Arizona is a meteorite impact crater located at 43 miles east of Flagstaff, on I-40, in the northern Arizona desert plateau. It is the largest impact crater in the United States.

The site was formerly known as the **Canyon Diablo Crater**. Scientists refer to the crater as the **Barringer Crater** in honor of Daniel Barringer, who was first to suggest that it was produced by meteorite impact, and not by an ancient volcanic eruption.

Meteor Crater lies on a barren desert plateau at an elevation of 5,700 ft above sea level.



The crater is about 3,900 ft (1.2 km) in diameter, is 570 ft (170 m) deep, and is surrounded by a rim that rises 148 ft above the surrounding plains. One of the interesting features of the crater is its squared-off outline, believed to be caused by pre-existing regional cracks in the strata at the impact site. It is really a frightening site; the immensity of the crater is like an otherworldly vision and the barren surrounding gives you the impression that you are out on a lunar walk...

The crater was created about **50,000** years ago during the Pleistocene epoch, the geological epoch which lasted from about 2,500,000 to 11,700 years ago (which was the time of last ice age).

This crater is the world's best preserved meteorite impact site. At the time, the area was inhabited by woolly mammoths. It was probably not inhabited by humans; because the earliest confirmed record of human habitation in the Americas dates from long after this impact. Humans walked into North America from Asia across the Bering Sea landmass as the last Ice Age waned about 13,000 years ago.

The object that excavated the crater was a nickel-iron meteorite about 55 yards across, at impact, which struck the plain at a calculated speed of 28,600 mph.

Then, in 1903, the mining engineer and businessman Daniel M. Barringer suggested for the first time that the crater has been produced by an impact of a large iron-metallic meteorite. He made a mining claim to the land and received in 1903 a land patent signed by Theodore Roosevelt for 640 acres around the center of the crater.

Since then, numerous other impact craters have been identified around the world, but the Meteor Crater of Arizona remains one of the most visually impressive owing to its size, young age, and total lack of vegetative cover.

Meteor Crater is today a popular tourist attraction privately owned by the Barringer family through the Barringer Crater Company, which proclaims it to be "the best

preserved meteorite crater on Earth", with an admission fee charged to see the crater, adults \$16, seniors \$15. The Meteor Crater Visitor Center features interactive exhibits and displays about meteorites and asteroids, space, the solar system and comets. It features a 1,406 pound meteorite found in the area, and meteorite specimens from the Meteor Crater that can be touched.

Despite its importance as a geological site, the crater is not protected as a national monument, a status that would require federal ownership. It was designated, however, a National Natural Landmark.

During the 1960s, NASA astronauts trained in the crater to prepare for the Apollo missions to the Moon.