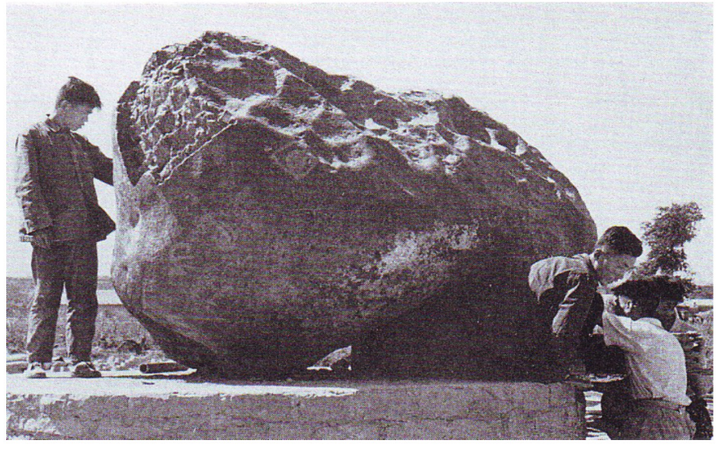
ALETAI METEORITE SPHERE

IRON - IIIE
Circa 4.5 billion y/o
Weight: 676 g
Diameter: 5.4 cm

PROVENANCE

Discovered in Xinjiang Province, China.

A magnificent meteorite sphere, cut from the famous Aletai meteorite and polished to reveal the shimmering iron-nickel matrix and the beautiful crystalline Widmanstätten pattern – a striking, criss-cross structure unique to extraterrestrial iron.

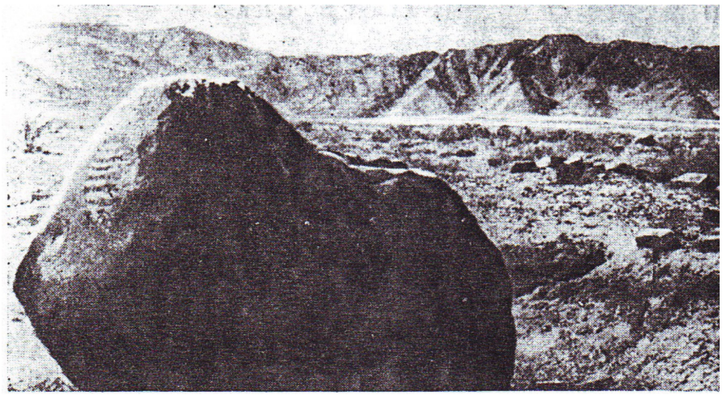


A Messenger from Space

This exceptional sphere, fashioned from the famous Aletai meteorite, offers a rare three-dimensional view of its interior crystalline matrix – composed chiefly of interweaving bands of two iron-nickel alloys: taenite and kamacite. Kamacite is unique to meteorites and does not naturally occur on Earth.

The Aletai meteorite is of particular scientific interest because of its unique chemical profile. Indeed, it belongs to the rarest category of iron meteorites known - IIIE - of which there are only 16 members on record. Of these, it is one of only two which have notably anomalous make-ups, containing the largest amount of gold of any specimen in the group, as well as considerable quantities of schreibersite - a rare phosphate mineral, which gives Aletai samples their distinctive lustrous surface. First brought to our planet by meteorites billions of years ago, this phosphate mineral is also thought to be the source of the reactive phosphorus that created the necessary conditions for the very beginnings of life on Earth.

The impact of the Aletai meteorite was among the most dramatic of all known meteorite falls, with its skipping-stone-like trajectory producing the largest recorded strewn field in history. Fragments of the original parent body blasted apart by thermal shock as it entered the atmosphere, and scattered across an expanse that reached some 267 miles. One of these masses, lodged in the foothills of Inner Mongolia's Altai Mountains, appears to have been known to the Russian painter Nicholas Roerich (1874-1947), who had visited Mongolia in the 1920s and 30s. The mass seems to have inspired the 'sacred stone' that features in his early designs for the staging of the 1948 performance of Stravinsky's, 'The Rite of Spring'.



1 The Armanty mass of the Aletai meteorite, after its removal to the city of Urumqi, Xinjiang Province, 1965

2 Study for the set of The Rite of Spring, Nicholas Roerich, 1944.

3 The Armanty mass in situ, photographed for the Soviet Journal Meteoritika, Vol. 22, 1962.

‘While the intelligent man no longer regards the stone as a god, he is convinced that it is a messenger from space, a patient and even reverential study of which will disclose to him not a few of the secrets of the universe.’

Oliver C. Farrington, *The Worship and Folklore of Meteorites,* 1900