BOOKS & ARTS

Some will go far to catch a falling star

Henner Busemann enjoys a hymn to the passionate collectors who fuelled the science of meteorites.

The Fallen Sky: An Intimate History of Shooting Stars

by Christopher Cokinos

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Meteorites — rocks that ‘fall from the sky’ — fascinate and inspire. The origin of these dark, often strangely sculpted boulders that might suddenly dent a ploughed field or demolish a roof has long been disputed. Yet the global consequences of meteorite impacts have only recently been accepted. It took the efforts of a few visionaries — mostly non-academics who had to endure scholastic resistance, sarcasm and slander — to demonstrate that rocks on Earth can come from asteroids, the Moon, Mars and comets; that their fiery crashes created giant craters; and that such bombardment was important for the development of life on Earth.

Christopher Cokinos, a creative-writing teacher at Utah State University, erects a monument to these dedicated pioneers in *The Fallen Sky*. As well as telling their personal stories, he covers a comprehensive range of topics in meteorite science — from the observation and evaluation of fireball trajectories to the discovery of meteorites, their transport, classification, conservation and ownership. He also assesses the rocks’ commercial, scientific and spiritual value.

Because of their celestial origin and rarity, meteorite hunting kindles strong passions. Jealousy, personal animosity, commercialization and a struggle for fame and possession have often accompanied the chase. Cokinos retraces the footsteps of the first US meteorite ‘addicts’, such as the explorer Robert Peary, who transported the Cape York iron meteorites from Greenland in the 1890s, and Daniel Barringer, a mining-company owner who purchased Meteor Crater in Arizona in 1903 in the hope that a large lump of iron could be found there. The desire to possess a meteorite led others

into legal disputes. Farmer Ellis Hughes, for example, was convicted of theft after ‘recovering’ the famous Willamette iron meteorite from private land in 1902. The 14-tonne main chunk of this is now in the American Museum of Natural History, New York.

Cokinos’s efforts culminate in three splendid chapters. One concerns pioneer Harvey Nininger, a biologist from Kansas who was the first to systematically trace and collect meteorites in the United States. Cokinos gives a thrilling description of Nininger’s epic fight to raise awareness of the importance of meteorites as extraterrestrial rocks, and his education of US rural populations in how to recognize meteorites on their farmlands. Hundreds of his samples, including rare specimens essential to meteoriticists, are now held by the British Museum,

and he is considered one of the leaders of modern meteorite research. Yet Nininger’s hopes for an appointment as a professor for meteoritics never materialized. Traduced as a collector with merely commercial interests, Nininger struggled to earn enough to support his family yet managed to accumulate an impressive private collection of meteorites.

Cokinos conveys his excitement at visiting Nördlingen, a picturesque medieval town in the south of Germany, built within a meteorite

crater of some 20 kilometres in diameter that formed around 15 million years ago. The town’s centuries-old church is made entirely of suevite rock formed by the impact, and offers a full

panoramic view of the crater rim from the steeple. Yet it wasn’t until 1960 that US scientists Eugene Shoemaker and Edward Chao proved that the Nördlinger Ries crater was created by a meteorite impact.

Finally, Cokinos describes his participation in an annual excursion to Antarctica to collect meteorites — organized by researchers William Cassidy and Ralph Harvey and mountaineer John Schutt, among others. Since the 1970s, scientists supported by the US National Science Foundation have sought meteorites in the perpetual ice, where the strange rocks can be easily recognized and also accumulate as a result of being transported through the ice sheet. Cokinos’s detailed description of the pleasures and discomforts of such an extreme expedition is somewhat overdone, though highly recommended to all potential candidates.

The Fallen Sky is an inventive introduction to meteoritics and contains a wealth of scientific, historic and biographic information. It will suit both general readers and planetary scientists who, swamped by detail, might have lost track of the basic motivation for their research. ■

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Collector Marvin Killgore with the Fukang meteorite, which could be as old as the Solar System.

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