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A Summer Fall

A bright fireball and two sonic booms ushered the fall of the world's most recent Martian meteorite in Morocco on July 18, 2011. Named Tissint [*Data link* from the Meteoritical Bulletin], the 7 kilograms (15 pounds) of pieces recovered in December were confirmed officially as the *shergottite* type on January 17, 2012.



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As only the fifth known witnessed fall of a Martian meteorite since the fourth in 1962 in Nigeria of the Zagami meteorite [Data link from the Meteoritical Bulletin], interest in the Tissint meteorite is running high. These new pieces gathered off the Moroccan dessert are considered relatively fresh, having been subjected to terrestrial contamination for only six months as compared with other Martian meteorites collected centuries or more after their touchdown.

Christopher Herd (University of Alberta, Edmonton), chair of the committee that confirmed the meteorite's name and origin, commented that studying the crystallization history of this igneous rock, "we can peer back and say something about the magma itself and the interior of Mars, the part of Mars that it came from. So in some ways we can probe right in to the inside of Mars through these kinds of studies." Pieces of Tissint are now in the

meteorite collections at the University of Alberta, Arizona State University, University of New Mexico, and University of Washington. Of the 103 separately named and numbered Martian meteorites on the official list, shergottites are the most abundant type. Cosmochemists will now be analyzing samples of Tissint to determine its igneous crystallization age, how it compares to the other shergottites, and what details it reveals about the Red Planet.

For more:

- · Listing of Martian Meteorites, from the Meteoritical Bulletin Database.
- · Newly Fallen Meteorites Offer Fresh Look at Mars, radio interview with meteorite expert Christopher Herd and host Ira Flatow from sciencefriday.com.
- · NEW Tissint is acquired by the Natural History Museum in London, this news release includes photos and video.
- · NEW Tissint is acquired by the Natural History Museum in Vienna, this press release includes photos.
- · PSRD article: *The Multifarious Martian Mantle*, which describes the kinds of amazing details gathered about the interior of Mars from meteorites.

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