

AUTHENTIC REPLICAS OF CHONDRITES FOR BASIC EDUCATION PROGRAMS

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As very few meteorites are found by geologist one of the purpose of our divulgation program "Is there an ET in your backyard ?" is to teach people to identify meteorites. A proper way for identify meteorites requires a study of a large variety of samples. Indeed meteorites are not abundantly available for loan to schools or astronomy clubs and only few museums have a representative collection for public exhibition.

The meteorites on displays at museum are many times polished and etched and the meteorites are not found like this in the country so that it is need show them as they are real find. Many students of geology or astronomy never picked up a meteorite.

The reproduction of meteorite masses before cutting was done since the XIX century whether for exhibitions or for study, is show to be very important for activities of any meteorite divulgation program.

The ability to recognize a possible meteorite in the country will require some degree of familiarity with their general appearance.

To make a replica of the meteorite before cutting it can preserve most of the important features of this appearance, but replica are not quite equal to real object.

To account for postulations of private and public schools, as well as the request of the community in general, there were developed at the Seção de Meteorítica/DGP Museu Nacional Rio de Janeiro a didactic kit of authentic replica of meteorites for loan to the

schools, astronomy clubs and museums pretend to promote the elementary education in Meteoritics at the schools with the objective to develop strategies, that allow the recognition of meteorites.

Particularly the molding technique has achieved a notable advance, which was made possible due to the development of new products such as silicone. There are several articles describing how molds and casts are made but very few present the steps that precede the realization of the mold.

The basic technique for molding three-dimensional meteorites. When the mold is made of two or more parts it is necessary to separate each part of the surface through the application of clay (or plastiline) around the meteorite, according to a previously established molding plan.

Here we present a variation of the classical technique using resin, cement, sand and iron fillings to make a real authentic replica of a chondrite that can compose a meteorite kit for schools and small museums.