

# Fascinating images from a new world

July 14 2010

---



A playground for geologists: The surface of the asteroid Lutetia is covered in craters. In some places, parallel grooves can also be seen. Credit: Image: ESA 2010 MPS for OSIRIS Team/MPS/UPD/LAM/IAA/RSSD/INTA/UPM/DASP/IDA

The ESA space probe Rosetta [flew past the Lutetia planetoid](#) at around 6 p.m. CEST on Saturday. The OSIRIS camera system, built and developed under the direction of the Max Planck Institute for Solar System Research in Katlenburg-Lindau, Germany, provided unique images of this rendezvous. They not only show a large number of craters on the surface of the celestial body, but also individual rocks and parallel grooves.

With a resolution of around 60 metres per pixel, the images provide a fascinating view of Lutetia. "This is a completely new world, which no-one has ever seen before," says Max Planck researcher Holger Sierks, Head of the OSIRIS team. The [planetoid](#), whose longest axis measures around 126 kilometres, is oval in shape. Its surface is marked by many craters, both large and small; in one of the larger craters, the images even show evidence of a landslide. In some parts, parallel grooves cover the cosmic rock, the origin of which is still unknown.

The [camera system](#) had already focused on the asteroid on Saturday morning. At approximately 6 p.m. the [Rosetta space probe](#) was within 3,162 kilometres of the asteroid. "Both the wide-angle and the telephoto camera worked perfectly," reports Sierks. The Control Centre of the [European Space Agency](#) ESA passed the data collected during the fly-by directly to the Max Planck Institute, where researchers worked all day and into the night filtering images from the raw data. On Saturday at around 11 p.m. they presented their initial results.

During the coming days and weeks the scientists want to further evaluate the images. It should then be possible to determine the colour of the asteroid and thus the [chemical composition](#) of its surface in more detail. They will also use data from other measuring instruments which were active during the fly-by as well.

Since 2004, the Rosetta space probe has been en route to the Churyumov/Gerasimenko comet, and the plan is for the Philae lander to touch down on the comet in 2014. In September 2008, Rosetta passed the planetoid Steins.

Provided by Max-Planck-Gesellschaft

Citation: Fascinating images from a new world (2010, July 14) retrieved 3 May 2024 from

<https://phys.org/news/2010-07-fascinating-images-world.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.