# NASA's Perseverance rover discovers unusual 'Skull Hill' rock on Mars



NASA’s Perseverance rover has made a fresh discovery on the Martian surface, capturing the attention of scientists due to the unusual features of a rock it has encountered. The rock, nicknamed "Skull Hill" by the mission team, was spotted in the Jezero crater region, specifically in an area known as "Witch Hazel Hill."

The discovery took place on April 11, as Perseverance paused at the boundary between light and dark rock outcrops. "Skull Hill" stands out for its distinctive dark colour and an eye socket-like indentation that contrasts sharply with the lighter-toned rocks around it. The rock's angular surface and the presence of pits add to its unique appearance.

Described as a "float rock," this term indicates that the rock was not found in its original place of formation but has been transported to its current location. According to NASA’s blog post, these float rocks may have originated elsewhere on Mars or outside the planet and then moved, possibly by impact events or geological processes. The team is investigating the rock’s origin and transport mechanisms.

While "Skull Hill" resembles certain meteorites found on Mars, such as iron-nickel meteorites discovered by the Curiosity rover in the Gale crater, its chemical signature seems inconsistent with a meteorite origin. Possible explanations, as suggested by NASA, include the rock being an igneous formation eroded from a nearby outcrop or debris ejected from an impact crater elsewhere on Mars.

This discovery is part of a broader context of intriguing rock finds by Perseverance. Last month, the rover came across another unusual formation dubbed "St Paul’s Bay," notable for its bubbly texture and spherical features that vary in colour from pale brown to grey. Additionally, in February, Perseverance collected a sample named "Silver Mountain," which bears textures unlike any previously seen on Mars, potentially opening new avenues for understanding the planet’s geological history and environmental conditions.

The ongoing analyses of these rocks could yield important insights into the geological processes on Mars and contribute to the search for signs of past life on the planet. The Perseverance rover’s work in the Jezero crater continues to be a focal point for uncovering the planet’s mysteries, as the research team refines their understanding of how these float rocks arrived at their current locations and what they reveal about Mars' past.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://science.nasa.gov/blog/origins-uncertain-skull-hill-rock/> - This NASA Science blog post confirms the discovery of the 'Skull Hill' rock by Perseverance in Jezero Crater, describing its dark color, angular surface, pits, and designation as a float rock transported from elsewhere on Mars, supporting the claim about the rock's unusual features and uncertain origin.
2. <https://scitechdaily.com/dark-pitted-and-possibly-alien-the-skull-hill-rock-that-has-scientists-stumped/> - The SciTechDaily article details the distinctive physical characteristics of 'Skull Hill,' including its pits and spherical particles, corroborating the description of its texture and unique appearance noted in the article.
3. <https://bgr.com/science/nasa-found-a-rock-on-mars-and-has-no-idea-where-it-came-from/> - This BGR piece discusses the uncertainty surrounding the origin of 'Skull Hill,' considering possibilities such as it being transported ejecta or an igneous formation, which supports the article's discussion on hypotheses about the rock’s origin and transport mechanisms.
4. <https://www.iflscience.com/nasa-finds-skull-hill-rock-on-mars-believes-it-originated-from-elsewhere-78902> - IFLScience reports on NASA's belief that 'Skull Hill' is a float rock likely transported from a different Martian location, and mentions meteorite comparisons and chemical composition analysis, reinforcing the claims about the rock’s potential origins and contrasting chemical signature.
5. <https://opentools.ai/news/nasas-perplexing-skull-hill-rock-discovery-on-mars-a-galactic-mystery> - This source highlights the geological context of Jezero Crater and the diverse mineralogy that might explain the origins of float rocks like 'Skull Hill,' providing background that supports the article’s points on the broader geological significance of the discovery.
6. <https://mars.nasa.gov/mars2020/mission/overview/> - The official NASA Mars 2020 mission overview page provides background on the Perseverance rover's work in the Jezero Crater, including its goal to study Martian geology and collect samples, which contextualizes the importance of discoveries like 'Skull Hill' and other rock formations such as 'St Paul’s Bay' and 'Silver Mountain.'
7. <https://www.manchestereveningnews.co.uk/news/uk-news/nasa-scientists-baffled-rover-discovers-31497341> - Please view link - unable to able to access data