

What are Star dunes?

March 7, 2024 • vajiramandravi.com



About Star dunes

- Star dunes – or pyramid dunes – are named after their distinctive shapes and reach hundreds of metres in height.
- They are found in Africa, Asia and North America and also have been spotted on Mars and on Saturn’s large moon Titan.
- Star dunes make up just under 10% of the dunes in Earth’s deserts.
- These are the tallest ones, surpassing other types such as crescent-shaped barchan dunes and straight and lengthy linear dunes.
- These are formed in areas with complex wind regimes, where winds blowing from different directions, and net sand accumulation, points within the desert where big piles of sand can be blown around to form giant dunes.
- Geographical distribution
 - Earth’s largest star dunes are found in the Badain Jaran desert in western China.
 - Namib Sand Sea in Namibia, large sand seas in Algeria such as the Grand Erg Oriental and Grand Erg Occidental, and Rub’ al Khali in Saudi Arabia.
 - In North America, Great Sand Dunes National Park in Colorado contains a series of them.

Recent research about Star dunes

- The research team from the UK travelled to the southeast of Morocco to examine the 100-meter-high and 700-meter-wide Lala Lallia.
 - They discovered that the very base of the dune was 13,000 years old, but the upper part of the structure had only been formed in the last 1,000 years or so
 - They have estimated the age of star dune of Lala Lallia in Morocco, for the first time.
 - The scientists used a technique called luminescence dating to work out the age of the star dune.
 - The method calculates when the grains of sand were last exposed to daylight.
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Q1) What are barchans?

These crescent-shaped sand dune produced by the action of wind predominately from one direction. One of the commonest types of dunes, it occurs in sandy deserts all over the world.

Source: [Scientists reveal secrets of Earth's magnificent desert star dunes](#)

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