

EI18ES

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Quaternary fossil dunes of Es Racó de sa Pedrera

Location



Municipality: Sant Josep de sa Talaia

U.T.M. coordinates
(31N ETRS89):

X: 346584
Y: 4304150



Difficulty and duration



Access

Coming from Sant Josep to Es Cubells on the PMV-803-1 road, follow the signposts for Cala d'Hort a kilometre before reaching the village. After approximately 3.6 km, take the dirt track to the left indicating the Torre des Savinar with a pink sign. Go to the end of the track and continue south along a track that leads to the cliffs. The descent to Sa Pedrera is very steep and narrow.

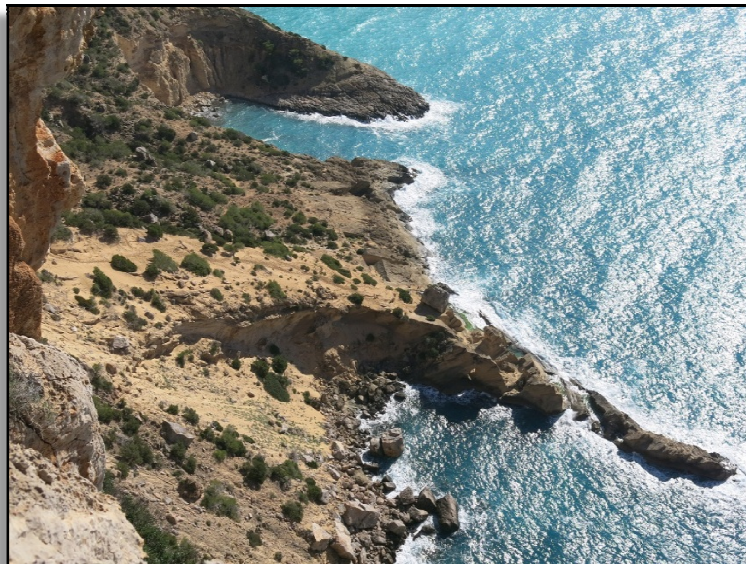
Principal interest

Stratigraphic

Secondary interest

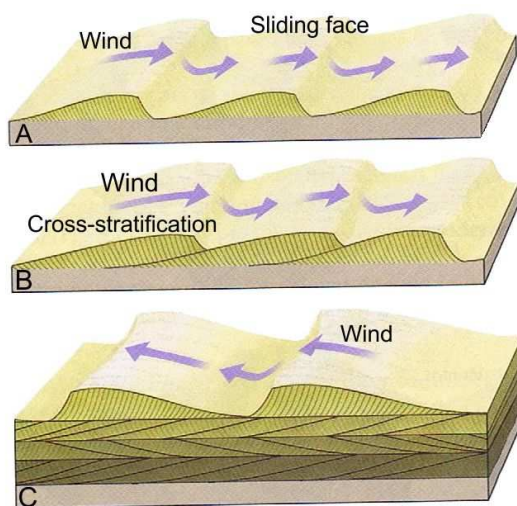
Sedimentological, geomorphological

Description of the locality



Aerial view of the quarry of Es Racó de Sa Pedrera.

The quarry of Es Racó de sa Pedrera is a good outcrop for observing a deposit of sandstones originating from fossil dunes, a stone known in the Balearics by the name of “marès.” These are calcium sandstones with light tones that vary from yellowish-white, reddish-yellow, pink and grey to light brown. The carbonated components can include abundant remains of organisms (algae, gastropods, echinoderms, etc.) Observing the different cross-sections of marès it is possible to identify a certain cross-lamination, very characteristic in these types of deposits, which provides clues about the agent responsible for their formation.



The wind dynamic accumulated grains of sand against the cliff at a moment when the sea level was lower than at present. It is believed that this took place during the Lower Pleistocene (between 2.6 and 1.8 Ma). As the wind makes directional changes, the grains of sand gradually accumulate and create layers of sand that deposit according to the wind direction.

Cross-stratification is formed as a result of grains of sand accumulating on the sliding face. Changes in wind direction complicate this cross-lamination.

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representative diagram of the formation of cross-lamination. Modified from Tarbuck E.J. & Lutgenes F.K., 2005.

Because marès is a very good stone for working and modelling, it has been a very important construction material in the tradition of these islands. It was already being used in Punic and Phoenician times. It is for this reason that a large part of the deposits of marès that existed in Eivissa have been exploited and are now modelled by the hand of man.



Detail of the quarry showing the different phases of extraction of the blocks of marès.

Today, above the deposit of fossil dunes of the quarry, there are a series of modern dunes rising up the slopes. They are formed of sands of light brown or whitish colour partially colonised by vegetation, which assists their stabilisation.



View of the modern rising dunes located above the marès quarry of Es Racó de sa Pedrera.

Recommendations

It is recommended that you have good footwear and comfortable clothing, and that you go down to Es Racó de sa Pedrera when it is not very hot, because the path is long, stony and steep. It is advised not to take children along because of the difficulty of the path.

Nearby, you can also visit the lookout point of the Torre des Savinar, from which you can view the thrust of the islets of Es Vedrà and Es Vedranell.