

**THE OUTCROP OF THE UNDERLYING SUBSTRATUM OF THE
MASPALOMAS DUNE FIELD (GRAN CANARIA, CANARY ISLANDS): A
SIGN OF A SEDIMENTARY DEFICIT**

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The development of the tourism in the neighbourhood of the Reserva Natural Especial de Las Dunas de Maspalomas (Gran Canaria) has been progressive from the Sixties of 20th Century to nowadays. The urbanization of the El Inglés' sedimentary terrace has modified the aeolian sedimentary dynamics, generating the stabilization of the aeolian deposits in insides areas, and the appearance of geological materials that constitute the underlying basement of the dunes area. The analysis of aerial photographs of last decades shows an increase in the exhumed surfaces of this basement from 70.000 m² in 1960, to 170.000 m² in 2000.

These geological materials that constitute the basement, and that arise over the dune field in a dispersed way, are:

- Cemented calcarenites (packstones), which contains micrite zones and sparite rims around grains with a thickness between 0,05 and 0,5 mm.
- Graves with rounded trachy-phonolitic and subangular calcarenites pebbles and cobbles, and a very pale brown interlayer paleosoil (10YR7/4), which has a Bt <20cm, a Bk moderately developed, and quartz, illite and kaolinite stand out in the silt fraction among other minerals.
- Low cemented calcarenites (fine sands) and eolianites (medium sands with laminations) have been defined as grainstones and these show sparite fine rims around grains (0,01-0,05 mm).

The cements of these rocks are calcium carbonates poor in Mg (0,44-1,18 %), Na (0,02- 0,06%) and Sr (0,07-0,16%).

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