



## **Provenance and geo-mechanical and physico-chemical characteristics of the building stones of the city of Rabat-Morocco, Limestone and calcarenites.**

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Limestone or calcarenite sandstones are consolidated sands of Quaternary origin (<1.8 million years), they extend parallel to the Atlantic coast between Rabat and Kénitra forming a dune cordon.

This rock is locally named "sandstone of Rabat" or "stone of Salé", it has been used for the construction of many historical monuments such as the Hassan Tower and the flap portailles, and it remains always usable for the modern constructions, Found in foundations, pillars, arcades, fountains ...

This rock is tender, easy to extract, to carve, to sculpt but vulnerable to alteration.

The massive limestones: the base of the city of Rabat presents a variety of massive limestones of different ages and of different thicknesses.

The massive limestones of Rabat of the Devonian (410 to 360 million years) are the most exploited in view of their physico-mechanical properties. They are intended for the use of dimensional stone and ornamental rocks or for the production of gravel.

In this work we will study the provenance, formation and physico-chemicals and mechanicals characteristics of these local building materials.