

Pedra de Almorquí



Image source: www.bemarsa.com

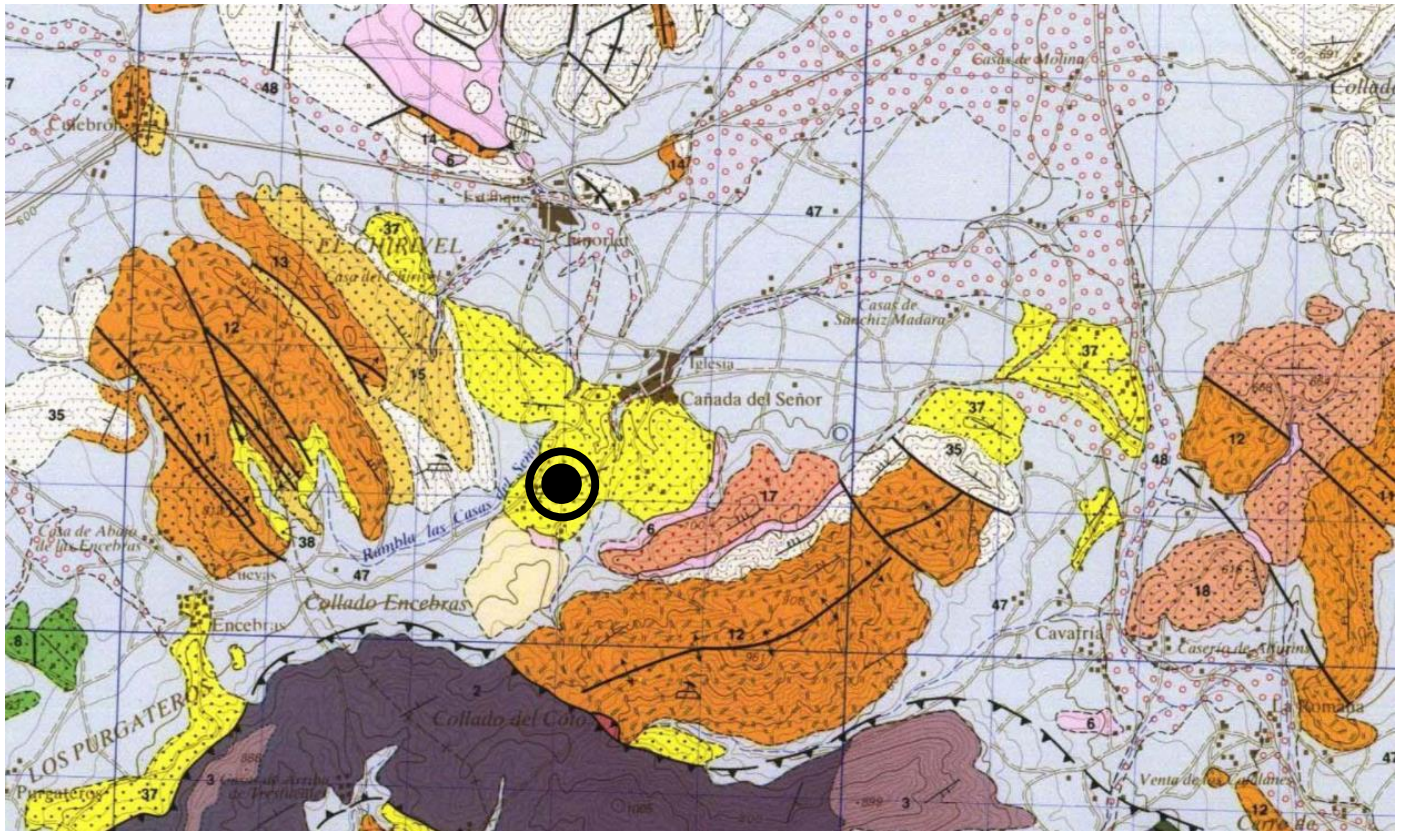
2 cm

Short description:

Cream porous calcarenite with highly homogeneous aspect.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
Limestone	Limestone (calcarenite)	Cream	Spain	Alicante	Cases del Senyor Monóvar	Cases del Senyor Monóvar

Geological setting



Geology:

The Almorquí Limestone is quarried in the surrounding of Cases del Señor (Monóvar, Alicante province, SE Spain). This Middle Miocene calcarenite is part of the fill of one of the so-called Eastern Prebetic basins located in the External Zones of the Betic Cordillera. These small Neogene basins were controlled by folding and diapirism related to the evaporitic mudstones of the Keuper. From sedimentological point of view, Almorquí is primary sediments belong to a continental shelf with no continuous deposition marked by erosional unconformities, strongly agitated waters that are ideals for benthic, nektonic and planktonic organisms, whilst, simultaneously, causing strong reworking and movement of sediments. Sediments displays abundant organic shells (mainly foraminifera), detrital quartz and neoformed silicates (attapulgite, glauconite and cristobalite). Sedimentary structures such as extensive bioturbation, burrows and flaser bedding are abundant.

Geological age: Middle Miocene

Geological unit: Eastern Prebetic basins

Application, use and heritage



Longoria Palace (www.esmadrid.com)



Sculpture: "Fecundidad". Francisco Borges. 1938.

www.gestorpatrimoniocultural.cicop.com



Hispalis fountain (www.sevillasecreta.co)



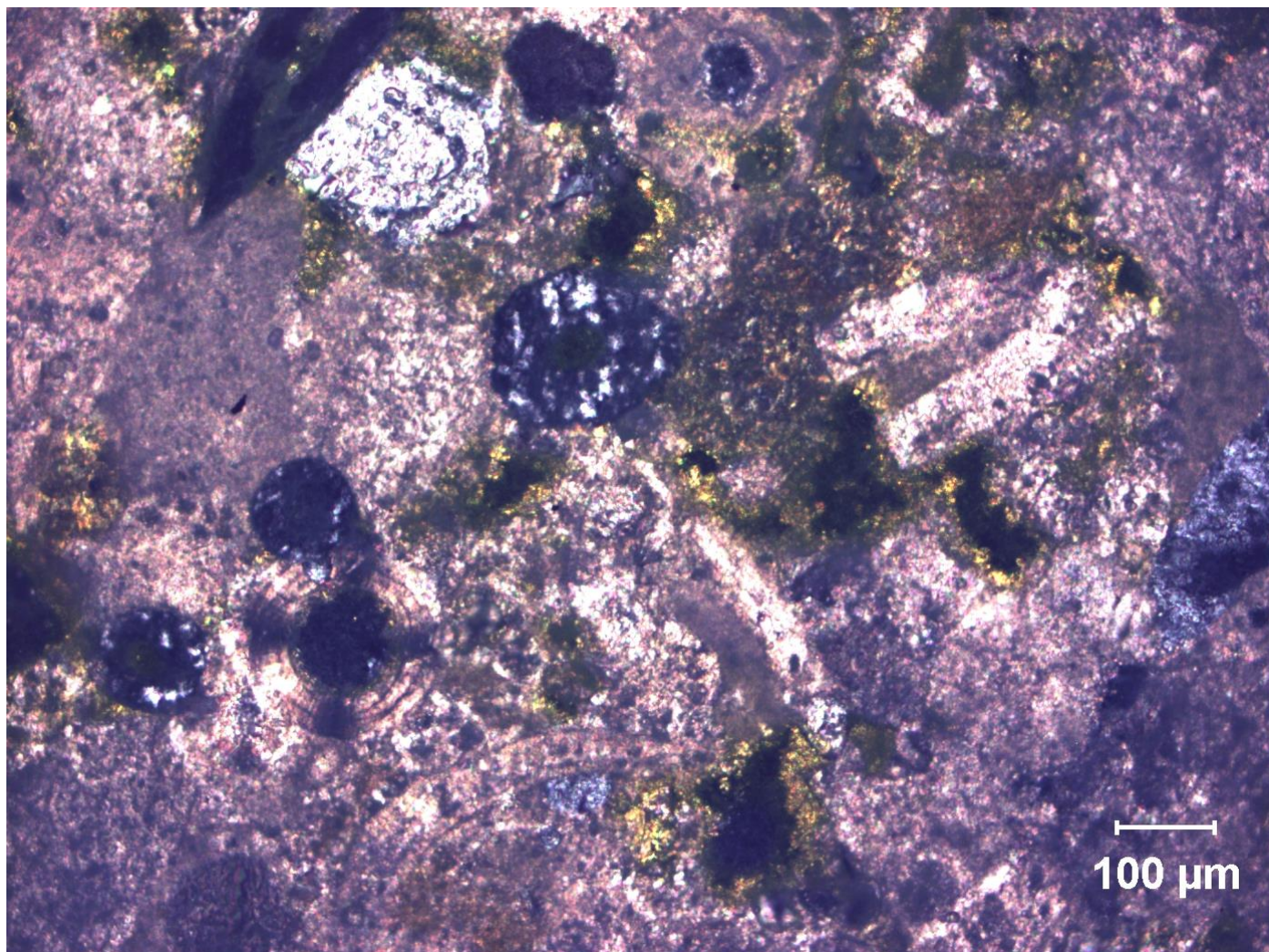
www.upv.es

Description:

Nowadays, the Almorquí limestone is a broadly used as building material in modern constructions (paving, cladding, etc.) as well as in artefacts and sculptures.

From a historical point of view, Almorquí limestone is used in monumental Spanish architecture since XIXth-XXth century, mainly in Madrid (Longoria Palace, Almudena Cathedral, Real Academia de Medicina building, etc.), Sevilla (Hispalis fountain, cathedral of Sevilla) and Alicante (some modernist houses). However, the use of this building stone at a local and regional level comes back to the XIIIth century. During XIXth and XXth centuries, the Almorquí limestone was used in the restoration of several important monuments of Spain.

Petrography



Description:

Cream porous calcarenite with highly homogeneous aspect.

This rock corresponds to a biomicrite with 7% of terrigenous components (mainly quartz, dolostone and K-feldspar). The 80% of components are fossils (mainly foraminifera: globigerinids). Over the 20% are orthochems (mainly micrite and microsparite). As authigenic constituents has been identified glauconite.

Source of information:

- 1) Geological Survey of Spain (IGME)
- 2) Ordoñez, S., Louis, M., García-del-Cura, M.A., Fort, R., López de Azcona, M.C. and Mingarro, F. (1994): Physical properties and petrographic characteristics of some Bateig stone varieties. 7th International IAEG Congress. Proceedings Book.

Mineral composition

If no accurate number, use MM=main minerals, SM = Subordinate minerals, AM=accessory minerals

Mineral 1 (%)	Mineral 2 (%)	Mineral 3 (%)	Mineral 4 (%)		
Calcite (90 %)	Dolomite (<1%)	Clay minerals (5%)	Quartz (<5%)		

Source of information:

- 1) Spanish Geological Survey;
- 2) RockMaquina – Piedras naturales, maquinaria y equipos.
- 3) Ordoñez, S., Louis, M., García-del-Cura, M.A., Fort, R., López de Azcona, M.C. and Mingarro, F. (1994): Physical properties and petrographic characteristics of some Bateig stone varieties. 7th International IAEG Congress. Proceedings Book.

Physical properties

Apparent density (EN 1936) kg/m ³	Open porosity (EN 1936) % vol	Water absorption at atmospheric pressure (EN 13755) % wt	Uniaxial Compressive strength (EN 1926) MPa	Flexural strength under concentrated load (EN 12372) MPa
2030	20.55	6.2	33.7	10.04

Real density (EN 1936) kg/m ³	Total porosity (EN 1936) % vol	Water absorption coefficient by capillary (EN 1925) (g/m ² x s ^{0,5})	Flexural strength under constant moment (EN 13161) MPa
		1.38	

Source of information:

- 1) Spanish Geological Survey;
- 2) RockMaquina – Piedras naturales, maquinaria y equipos.
- 3) Ordoñez, S., Louis, M., García-del-Cura, M.A., Fort, R., López de Azcona, M.C. and Mingarro, F. (1994): Physical properties and petrographic characteristics of some Bateig stone varieties. 7th International IAEG Congress. Proceedings Book.

Sources of more information

Type of information	Name of provider	URL
This data sheet	Spanish Geological Survey RockMaquina – Piedras naturales, maquinaria y equipos.	
Non-commercial directory	Spanish Geological Survey	
Commercial directory	Grupo Piedra Fósil Hellín S.L.	www.piedrafosil.com
Scientific publication		
Other publication		

Compiled by:	Instituto Geológico y Minero de España (IGME) http://www.igme.es/	 Instituto Geológico y Minero de España
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