



Jaisalmer Golden Limestone and Sandstone: A Heritage Stone Province from the Desert of Western India

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The yellow limestone and sandstone of Jaisalmer, famous as golden stone, have been extensively used in architectural heritage of western India. The golden yellow limestone and sandstone built architectural heritage impart an exquisite character to Jaisalmer city, which is popularly known as 'The Golden City'. The Jaisalmer Fort built by limestone and sandstone has been listed as a world UNESCO heritage site-locally referred to as 'Sonar Qila' meaning 'Golden Fort'. Jaisalmer is renowned for architecturally distinctive Jaisalmer Fort, Palace of Maharawal (now Fort Palace Museum), Jain and Lodurva temples, Nathmalji-ki-Haveli, Patwon ki Haveli and Salim Singh ki Haveli and Bada Bag cenotaphs (burial monuments, locally known as chattris) constructed by yellow limestone and sandstone. The limestone and sandstone used in the architectural heritage are decorated by fine and minute ornate carvings.

The yellow limestone and sandstone, well exposed around the Jaisalmer city, belong to the Jaisalmer Formation of Jurassic age. Prominent outcrops exist at Bada Bag, Hamira and Baisakhi. The golden-yellow Jaisalmer limestone is hard, compact with low porosity and smooth surface which has been classified into microfacies varying from oolitic to bioclastic grainstone, wackestone, mudstone and packstone (Mahender and Banerji, 1990; Pandey et al., 2012). In general, these limestones have fossil fragments as skeletal allochems whereas pellets, ooids and intraclasts as non-skeletal allochems, having micritic cement. The golden-yellow to grey coloured, dominantly fine to medium grained, well-bedded, hard sandstones are largely classified as calcareous arenites by a wide array of researchers (Pandey et al., 2014; Ahmad et al., 2017 and references therein). The framework quartz grains are dominantly monocrystalline, cemented largely with carbonates and in some with iron oxides.

The quarrying of ornamental yellow limestone and sandstone has been going around the city of Jaisalmer for decades, which are sought by various countries due to their pleasing color, texture and aesthetics. The yellow limestone and calcareous sandstone are commonly traded as yellow marble and generally used as flooring tiles, wall claddings, counter tops and most importantly as an ornamental stone. The yellow limestone and sandstone of Jaisalmer Formation from India can be designated as 'Global Heritage Stone Resource' and together they can lay claim for the designation of 'Global Heritage Stone Province'.

References

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