

Growing reputation for Western Australia's dimension stone resources

by

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Dimension stone is a natural rock material quarried for the purpose of obtaining blocks or slabs suitable for use as building stone, ornamental stone, and monumental stone. Most stones fall into six major commercial categories: granite, black granite, sandstone, limestone, marble, and slate.

In Australia over the last ten years, there has been substantial downsizing of the dimension stone industry due largely to the impact of cheaper imports of cut and polished stone from low-cost labour countries, especially China, India, and Brazil. Today, Australian industries provide cut stone-slab material drawn from large resources of easily extractable local stone such as coastal limestone, sandstone, and basalt destined mainly for the local building and landscaping industries.

In an effort to keep the industry viable, Western Australian dimension stone producers have adopted a number of strategies to maintain production in the face of cheaper stone imports. Of these, the most important has been to select visually attractive stone currently in demand by domestic and international customers (Fig. 1). Other key strategies are to produce very high-quality, diamond-cut, 10–25 t blocks free of cracks and natural flaws, and to reduce quarrying costs by selecting sites easily accessible for mining operations, located within an economic haulage distance from ports or city distribution sites.

It is estimated that in recent years Western Australia has become the largest producer of cut limestone blocks in Australia — producing more than 0.23 million tonnes (Mt) per annum, valued at approximately \$A4.57 million. This makes the State Australia's largest dimension stone producer with an annual production of almost 0.25 Mt, valued at approximately \$A7.81 million.

Since the early 1990s, Western Australia has become established as a junior exporter of specialty stone blocks, mainly as high-quality blocks and slabs of quarry- and diamond-cut limestone, as well as blocks of sandstone and granite. The State has large resources of high-quality, visually attractive stone, especially granite, black granite, multi-coloured marbles, and a number of unique and highly colourful stones yet to be brought to the attention of the international dimension stone market (Fig. 2).

With changing demands for dimension stone in future years, it seems likely that Western Australia will be well-placed to further develop dimension stone export markets due to the extensive range of quality stone available, and the fact that quarry access in the State may be easier than in many overseas countries where population growth is already precluding quarrying of similar materials.

The Geological Survey of Western Australia has recently released Mineral Resources Bulletin 23, a major



Figure 1. Polished slab of the spectacularly coloured *Brockman Tiger Eye Jasper*, Mount Brockman area, West Pilbara



Figure 2. *Desert Sunset*, a banded jasper associated with Archean banded iron-formation in the Fields Find area, Murchison Terrane

publication entitled *Dimension stone in Western Australia, Volume 1 — Industry review and dimension stones of the Southwest Region*. Mineral Resources Bulletin 23 covers the historical and technical aspects of the dimension stone industry in the State's Southwest (within a radius of 300 km from Perth) that contains many high-quality and visually attractive dimension stones. The publication also contains a discussion on the history of the use and methods of extraction of dimension stone, and covers technical properties, stone testing, petrography, processing, production trends, current and potential markets for local stone products, and conservation procedures.

A free PDF file of this publication is available at 'Dimension stone in Western Australia Volume 1' in the publications listed on the Department of Industry and Resources website at: www.doir.wa.gov.au/GSWA/publications. Hardcopies can be purchased for \$50 (plus GST) by telephoning (+61) 8 9222 3459, faxing (+61) 8 9222 3444, or via the Department's electronic bookshop: www.doir.wa.gov.au/ebookshop.

Reference

- Fetherston, JM, 2007, *Dimension stone in Western Australia, Volume 1 — Industry review and dimension stones of the southwest region*: Geological Survey of Western Australia, Mineral Resources Bulletin 23, 181p.