



AA MINERAL SPECIMENS

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In This Issue

[New Products](#)

[Banded Iron Formation
and Tiger Iron](#)

[Our Itinerary](#)

Quick Links

[Home Page](#)

[New Stock](#)

[About Us](#)

[Previous Newsletters](#)

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Dear susan s

We have recently accessed some wonderful polished slabs of Banded Iron and Tiger Iron from the famous Western Australian locality of Marra Mamba.

These slabs display all the complex and aesthetic patterns and colour contrasts that have made the material from this locality so famous and so sort after.

Polished slabs of tiger iron are a highly displayable addition to any collection. They also make popular presents for the non-collector due to their decorative qualities. Their extreme age of nearly 3 billion years make them great conversation pieces. Not many homes or offices can boast an item of such great antiquity.

We will have a stand at the Wahroonga Christmas Fair on December 6th and hope to meet as many of our Sydney customers as care to attend.

Happy collecting!

Susan and Bruce

NB: If you are having trouble displaying the images in this newsletter, you may need to click the 'display content' link at the top of your page. Also, adding our email address to your address book will in many cases solve the problem. You can also view this newsletter by going to our newsletter page, clicking on the + sign, and selecting the newsletter you wish to view.

Banded Iron Formation and Tiger Iron

Banded Iron Formation (known to geologists as BIF) is a rock type consisting of repeated layers of the iron oxide minerals magnetite or hematite and shale or chert.

The generally accepted concept of their formation is that the iron layers were formed in a marine environment as a result of oxygen being released during the photosynthetic process in blue green

algae. The oxygen combined with dissolved iron to form insoluble iron oxides that precipitated to form a thin layer on the ocean floor which itself was composed of iron poor mud that eventually formed shale or chert. The banding is thought to result from cyclic variations in oxygen content of the water - perhaps due to some sort of seasonal fluctuation.

The occurrence of banded iron formations is confined to a series of periods within the Pre-Cambrian with some formations being as old as 3700 million years. The specimens we are offering from the Marra Mamba Formation in the Pilbara of Western Australia are around 2900 to 3000 million years old.

Tiger iron is the term used for banded iron formation containing the chatoyant semiprecious gemstone, tiger's eye. Tiger's eye is an alteration product of the asbestos mineral crocidolite. The rather complex chemical composition of the original mineral is replaced by the chemically much simpler quartz. This process is achieved while preserving the original fibrous crystal structure and is thus referred to as a pseudomorph. The result of this process is a material that acts as a fibre optic medium whereby light travels preferentially along the length of the replaced fibre crystal. This gives the impression of internal movement when the angle of incident light is changed.

The varying colors and geometry of tiger iron result in specimens of great beauty and interest and they seem to convey the extraordinary age and magnitude of forces involved in their formation.

We have been fortunate to have worked on several projects in the Banded Iron Formation regions of Western Australia and we have always found the country ruggedly beautiful and challenging. The country, like the constituent rock formations, exude immense age and unbounded force.

New Stock



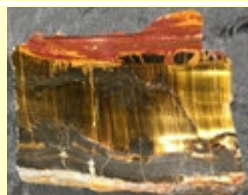
Tiger Iron

Tiger Iron, Marra Mamba, Pilbara, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Pilbara, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Pilbara, Western Australia.



Tiger Iron matching set

Tiger Iron, Marra Mamba, Pilbara, Western Australia.



Tiger Iron Book Ends

Tiger Iron, Marra Mamba, Pilbara, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Pilbara, Western Australia.



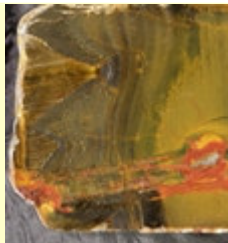
Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.



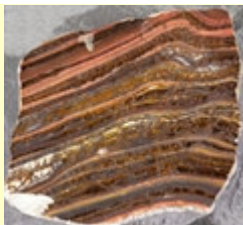
Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.



Tiger Iron

Banded Iron Formation, Marra Mamba, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.



Tiger Iron

Tiger Iron, Marra Mamba, Western Australia.

Itinerary

December

Sunday 6th December 2009

Wahroonga Village Fair

Wahroonga NSW

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