JANUARY

NEWSLETTER

2005

What's On?

Friends of the E. de C. Clarke EARTH SCIENCE MUSEUM

Sunday, January 23rd, 2005

A special joint function with the Bonsai Society:

"Suiseki: The Japanese Art of Stone Appreciation" by Mignonne Clark

followed by "Geology of the Paynes Find Area" and "Ask the Rock Doctor", both by Jenny Bevan

when? 12.30-1.00pm, BYO lunch, set-up, introductions and chat. Mignonne will talk first, followed by Jenny at approx. 1.15pm and "Ask the Rock Doctor" identifications of your specimens will be held from 1.45 to 2.30pm

where? The First Year Geology Lab at UWA, enter from Car Park 19, parking is free in red staff bays on Sundays.

how? Feel free to bring lunch to eat before we start, either inside or outside in the Uni's lovely gardens. (NB If you plan to eat inside, please avoid strong-smelling foods!) The Museum will of course be open from 2pm, and I am happy to show people the foyer gallery and displays which are not normally available on Sundays.

Ring 9341 6746 or email sacko@multiline.com.au (Mignonne) for further information.

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What is "Suiseki"?

Suiseki (Sui = water, Seki = stone) is the study and enjoyment of naturally formed stones as objects of beauty. The art of Suiseki involves the collection, preparation and appreciation of unaltered naturally formed stones. These stones are found in mountain streams, on windblown deserts, along ocean beaches - anywhere that nature may have deposited or shaped them. They are chosen to represent part of a scene in nature, Mountains, waterfalls, caves, or they may represent objects, men animals, boats, huts, or they may just be uniquely patterned, Japanese chrysanthemum stones are probably the best known example of these.

As with Bonsai, Suiseki was first practiced by the Chinese during the Song Dynasty (960 - 1279), and are generally referred to as Chinese Scholars Stones. As trade and contact between China and Japan flourished in the middle ages, the Japanese adopted and adapted the art form to their own culture, and like bonsai have set guidelines and refined the art. Due to this Japan is thought of as the mother nation of Suiseki.

Suiseki are often seen at Bonsai shows either to compliment a Bonsai on show, or as a separate display in themselves. In recent years appreciation for Suiseki and Chinese Scholars Stones has spread far beyond Asia and collectors are active in many countries, and exhibits are held in cities throughout the world.

The above information was taken from:
http://www.geocities.com/Tokyo/Palace/7574/whatissuiseki.html

The Simpson Collection of minerals and rocks at the Western Australian Museum

a talk and tour by Dr Alex Bevan (below, with Stella and Adrienne) who is the Curator of Minerals and Meteorites at the WA Museum, held on Sunday, November 28th: we followed this with our Friends 2004 Christmas Function in the Museum Cafe.

Western Australia is a prolific source of new minerals and fine specimens. However, the mineral collection of the State Museum has had a chequered history. Established in 1881, the collection grew rapidly as mining activity in the former colony increased. In 1908, when amalgamated with the collection of the Geological Survey of Western Australia, the combined collections totalled more than 10 000 specimens. In 1966, the lack of a curator led to the storage of the Museum's collection. Resurrected in 1985, on the arrival of Dr Bevan, the first-ever Curator of Mineralogy and Meteoritics, the Museum's collections are now being actively worked on by staff and associates of the Department of Earth and Planetary Sciences at the Museum.

In 1994 the State Government of Western Australia returned responsibility for the Simpson Collection of Minerals (and subsequent Mines Department Collection) to the Museum with an extra sum of money for staff and infrastructure to ensure its preservation. While the Simpson, MDC and original Museum collections are stored as separate entities, they are combined on electronic databases so that specimens, and infor-

mation about them, can be located quickly. Important "Type" specimens of 38 minerals first described from Australia are included in the combined collections, which total more than 30 000 specimens and include 1 260 mineral species from around 10 000 localities in Australia and the rest of the world.

Where did the "Simpson Collection" come from? Edward Sydney Simpson was appointed as Mineralogist and Assayer to the Geological Survey of Western Australia in 1897. A graduate in mining and engineering of the University of Sydney, and the first graduate of the new University of Western Australia (with a Bachelor's degree and first-class Honours in Geology, which he completed in only two years as some of his Sydney courses counted towards the UWA degree: he was also the first person to obtain a doctorate (D.Sc) from the institution) his contribution to mineralogy in the State was outstanding . In 1922 he was made government Mineralogist and Analyst and Head of the newly-formed Government Chemical Laboratories. Simpson recorded an immense amount of data on Western Australian minerals which earned him his Doctorate of Science from UWA.

Specimens accumulated during his tenure, and were eventually known as the "Simpson Collection". This eventually contained about 5 500 specimens, many of which are referred to in his famous work, published in three volumes after his death: "Minerals of Western Australia (which is still the principal reference work on mineral occurrences in the State). A further 7 000 specimens from the State and other mineral localities were added since Simpson's death: these are known as the MDC collections. Simpson bequeathed that portion of the collection he considered to be his to the Western Australian Museum, and, while responsibility for its well-being in theory lay with the Museum, the collection remained located at the Government Chemical Laboratories for the next fifty-five years.

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We met in the courtyard of the Museum, a good spot as there were plenty of large specimens to look at and discuss. The millstones in the corner which look rather unprepossessing were found to have come from France: they are a special kind of limestone which has been silicified, reminding us of the Moora Chert which, although much older, has gone through the same process. Careful examination showed the shells of fossil sea snails embedded in the rock, proving the original rock type. There are also large blocks of stromatolites and banded ironstones from the Pilbara, and orbicular granitoid from the Murchison.

Our party, which included several children who are always very welcome at our Friends functions, was about 24 strong (including Bevans) so that we needed to split into two groups in order to cope with the rather confined spaces of the collection areas in the basement of the historic Jubilee Building of the Western Australian Museum. Alex took the first group into the bowels of the building, into the basement storage where the Simpson Collection, and now the Main and Meteorite Collections, are housed. The Simpson Collection is in modern cabinets and any type of mineral or locality can be traced via a database. It includes some interesting historical material from old mining areas with well-known names but now no longer in existence. If anyone is interested in viewing the collection, this is possible by prior arrangement with Alex (or his assistants if he is away for any length of time). He showed our group some of the highlights, and everyone then continued to other areas to see more material. Recent acquisitions included some spectacular cut gemstones, largely zircons, which produced a few "oohs" and "aahs". People may be interested to know that they can go and see them temporarily on display in the D to D Gallery, in the heavy circular security case destined for the Argyle Diamonds Display due for set-up there in a couple of month's time. The Meteorite Collection is now housed very securely in the old museum Strong Room which has proved an ideal new home. It is a tremendous experience to see and handle rocks which you know are not only over four and a half BILLION years old, but have flown to us through Space from the Asteroid Belt, between Mars and Jupiter! Many of us looked at Mars on its nearest approach not too long ago, a tiny dot of light in the night sky, and to imagine material from almost as far again on the other side of Mars is mind-boggling. It is also exciting to see material from Mars itself, knocked off by a collision and eventually finding its way to our planet as meteorites.

As one group was having their guided tour of the Simpson and Meteorite Collection areas, the second group went up in the lift and across the bridge to the "Diamonds to Dinosaurs Gallery" on the top floor of the Jubilee Building. Many of our group had already visited the gallery, but your Curator Jenny provided a commentary for an hour-long wander through the place, pointing out interesting items and giving general backgrounds to some of the concepts and more information on everything from the formation of the Solar System to Early Man.

Then the groups swapped over and another hour was taken up in learning more about Earth' s interesting and beautiful materials. Time for lunch then: we had pre-booked in the delightful Cafe and reserved tables in the charming sheltered courtyard between the Jubilee Building and the Old Gaol. The food was ample, delicious and good value, and the usual happy time was had by all, ending with thanks to Mignonne and Allan for their sterling work on the Friends' behalf thoughout the year.

Some of the text in this article was taken from "Mineralogy in the Western Australian Museum" by A Bevan and P Downes, Australian Journal of Mineralogy, Vol 6, December 2000, pages 93-100.

The children enjoyed themselves! Bill was his usual handsome self, and we managed to collect most of the group together for an Xmas photo in the Museum foyer.

Ideas so far for of possible activities for Friends of the E de C Clarke Earth Museum in 2005

MONTH	DATE	ACTIVITY
JAN	Sunday 23	*Suiseki talk and workshop*

FEB No plans: your Curator is away ALL MONTH and although open Sundays as usual we will be CLOSED DURING THE WEEK. The Geological Society of WA has a talk on *mineralization in Brazil* on February 1: please ask Jenny for details (it will be quite scientific so only for the keen ones!) UWA's brand new *University Club of Western Australia* will be opened in February; a function may be planned shortly after, date to be advised.

MARCH 5 – 7 Labour Day Weekend
25-28 Easter Weekend: possible day excursion and/or talk this month

APRIL 23 - 24 ANZAC Day Weekend: ideas?
MAY No plans, getting ready for conference
JUNE 4 – 6 Foundation Day Weekend
11 - 12 **Mineralogical Society Conference** Weekend: Friends are invited to participate
13 - 16 **Mineralogical Society Field Trip** (Kalgoorlie area): Friends are invited to participate
JULY
AUGUST To be advised, plus EXPO *University of WA Open Day* (Sunday 28)
SEPT 10 - 18 **Carnarvon Basin Field Trip (week minimum)***
OCT *Earth Science Week* activity

NOV
DEC 4 Friends *Christmas Get Together* BYO or Convivial Lunch, venue to be advised, followed by a Mystery Tour -
24 - 27 Christmas weekend

Note: Guide only: full and correct details of all Friends activities will appear in the newsletter

Expressions of interest are invited for the trip to the Carnarvon Basin - please contatct Mignonne on 9341 6746 or email sacko@multiline.com.au if you are hoping to come or have queries.

TSUNAMI: Earth Science Information

I have taken this text and the following photographs from NASA's excellent satellite image website: http://earthobservatory.nasa.gov/Newsroom/
It is well worth visiting their pages as they have **clearly-explained** and **correct scientific information** about the Earth events and features they illustrate, and the pictures can be downloaded in some detail.

December 29, 2004

January 10, 2003

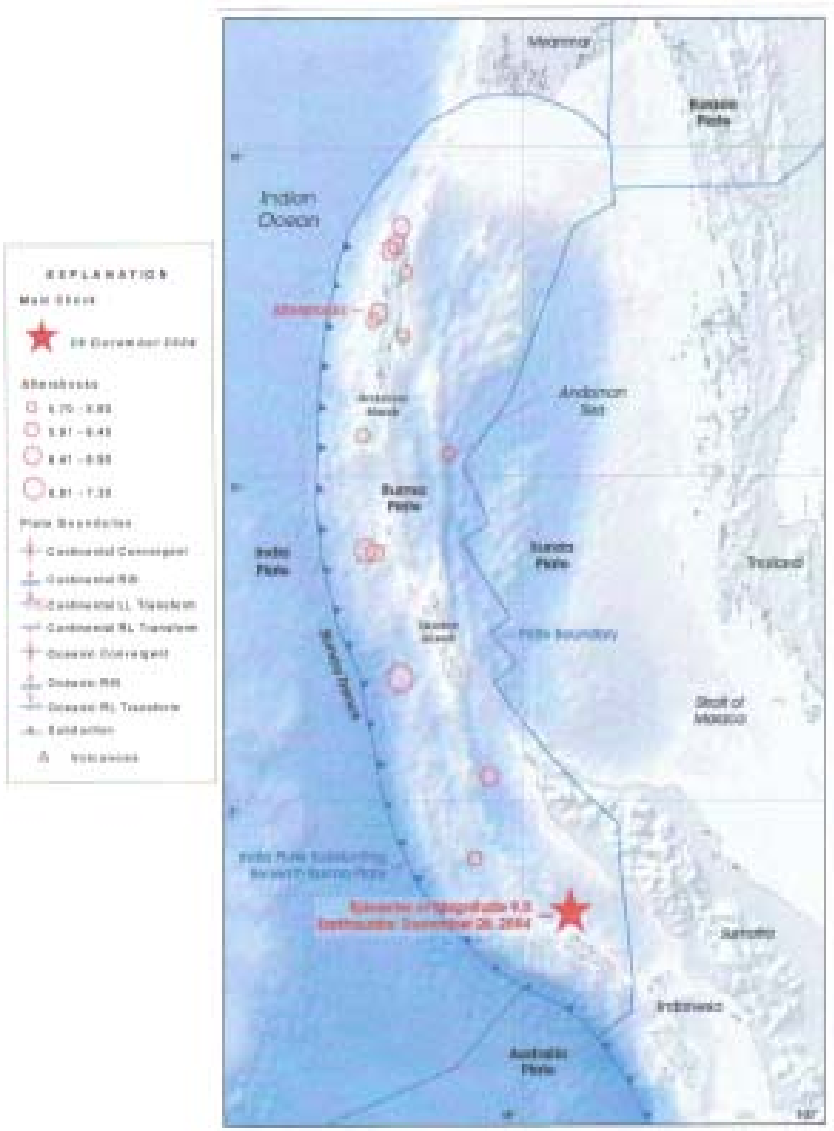
The Earth's solid surface floats on a layer of softer rock as a collection of interlocking, movable puzzle pieces called tectonic plates. At 7:58 a.m. (local time), on December 26, 2004, beneath the Indian Ocean west of Sumatra, Indonesia, pent-up energy from the compressional forces of one tectonic plate grinding under another found a weak spot in the overlying rock. The rock was thrust upward, and the Earth shook as a 9.0 magnitude earthquake sent its vibrations out into the ocean. Tsunamis spread out in all directions; the massive waves washed over islands and crashed against coastlines in Sri Lanka, Southern India, and even the east coast of Africa. Tens of thousands of people were killed; millions are homeless.

The image opposite shows how the tectonic puzzle pieces fit together around Indonesia. The epicenter of the recent quake is marked with a star in the image. It is located just to the east of the Sunda Trench, where the India Plate begins to get subducted beneath (forced under) the Burma Plate. The blue arrows along the plate boundary show the direction of subduction.

As the India Plate slides beneath the Burma Plate, it meets pockets of resistance, which causes compressional forces to build up. Weakened overlying rock gets forced upward. Based on the location of aftershocks (red shaded circles on the image), the United States Geological Survey reports that approximately 1,200 kilometers of the plate boundary probably slipped as a result of the quake. The initial rupture was likely more than 100 kilometers wide, and probably produced an average vertical displacement along the fault plane (the slope along which the two plates meet) of 15 meters.

When the bottom of the ocean is deformed by this type of "megathrust" quake, the upward force acts like a fist rising up from underwater. Water rolls down off the sides of the "fist," creating massive waves that can travel as fast as an airplane. The waves can move across the ocean and barely disturb the surface, but when they reach shallow coastal water, the earthquake's energy thrusts them tens of meters into the air. The tsunami created by this earthquake reached India and Sri Lanka in about four hours. The wave eventually reached Africa, the Pacific Ocean, Hawaii, and the west coast of North and South America.

If you are interested in earthquakes and seismic activity generally, go to our School's special website which has been constructed and is run by an earthquake expert, Vic Dent. It is at: ***www.seismicity.segs.uwa.edu.au***
Recent quakes measured on the School's seismometers are regularly uploaded to the site, where you can get contact details for Vic if you have any questions.



MUSEUM ROSTER:

Contact Allan Hart 9360 5157 (business hours) or you can email him on: allan.hart@abs.gov.au **to let him know which date(s) you would like.**

Sunday roster for Summer 2005

Jan 9	Pauline Matthews	Mar 13	Roger Staley
Jan 16	Stella Hutchinson	Mar 20	Pat O'Shea
Jan 23	Jeff Bowen	Mar 27	Easter
Jan 30	Allan Wynne	Apr 3	Danuta Stansall
Feb 6	Pat & Tony Miller	Apr 10	Rachel Blythe/ Sue Birney
Feb 13	David Connolly	Apr 17	Aiden Couzens
Feb 20	Allan Hart	Apr 24	Bill Fitzgerald
Feb 27	Stan Irwin (to be confirmed)	May 1	
Mar 6	Adrienne Cavaney	May 8	

Notice we have no-one for May yet: PLEASE contact Allan if you can volunteer. It is important to do your roster as promised so that visitors are not disappointed, so makesure you **DON'T FORGET!!!!**

New members who haven't done a roster yet: it is EASY and PLEASANT! I will guide you through what needs to be done, either beforehand or on the day if I am free. The book will be open at the **instructions page** so just READ THAT if you have forgotten anything, and the Security guys are there to help too. If all else fails, **ring me on my home number (button marked "HOME" on the phone)** or on my mobile: 0432 940 469.

Thanks so much, all of you, who have helped by being on the roster! Even if you don't get many visitors, it is important to be open when we promise we will be open, and who knows, your visitor may spead the word to others (and even be the reason why a student does Earth Science at U.W.A.!). Thanks also to those who organised their own "swaps".

NB.If you are unable to be a "Friend" by doing a roster, please don't forget that the alternative is to give a donation towards newsletter expenses etc.: $15 is suggested. Thanks very much to those who have donated so far in 2004!! Please make cheques payable to: "University of Western Australia" and I can then direct it into the Museum's donation fund.