



# National Rock Garden

Celebrating the Geological  
Heritage of Australia

Newsletter No. 10  
January 2015

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The National Rock Garden is proudly  
supported by the Geological Society of  
Australia and the Australian National University



**Australian  
National  
University**

[www.nationalrockgarden.org.au](http://www.nationalrockgarden.org.au)





## ***Recent Developments***

### ***Brad Pillans, Chair of the NRG Steering Committee***

In late December we installed a replacement for the Victorian rock which was stolen from our Federation Rocks display last February. Sadly, the missing rock – a lovely one tonne block of gold-bearing quartz from Bendigo – was never recovered, despite wide media publicity and a police investigation. Although the amount of gold in the rock was tiny – just a few grams – someone obviously felt they could make their fortune by stealing it. Anyway, I am pleased to report that we were able to source a replacement quartz specimen – around 2 tonnes WITH NO GOLD – from the Ballarat area, courtesy of Castlemaine Goldfields. This means that the Victorian Federation Rocks exhibit comprises rocks from both major goldfields cities – two from Bendigo and one from Ballarat – thus continuing the friendly rivalry between the two. At the same time as we installed the replacement rock, we also took the opportunity to install the plaque on the WA rocks which had lacked a plaque since they arrived earlier in the year. At which point our Federation Rocks display is now complete.

At the end of November, we took the opportunity to celebrate the release of our Masterplan with a launch event at Questacon, in Canberra (see report later in this newsletter). A report of that event is given below, including the acquisition, on permanent loan to the NRG, of a spectacular slab of Devonian-age fossil fishes, courtesy of the Canowindra Age of Fishes Museum. The Masterplan, which articulates our vision for the NRG site, will be an invaluable part of corporate fund-raising over the coming months.



*Photo: Andreas Buisman with one of his rock sculptures.  
The rock is Adelong Norite, from Adelong, NSW. Image courtesy Brad Pillans*



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On the weekend of October 25 and 26, my home garden was open to the public as part of the Open Gardens Australia scheme. The garden, which is about 4500 m<sup>2</sup> (a bit more than 1 acre), is planted with more than 900 species of Australian native plants, and a small number of 'Gondwana' species – plants from other parts of the former Gondwana continent, such as New Zealand. Rock sculptures, by Austrian sculptor, Andreas Buisman, were also part of the open garden weekend. With a proportion of the entry fee being donated to a nominated charity, we raised \$667 for the NRG. Andreas is a strong supporter of the NRG and we eventually hope to include some of his works as part of our displays. To view some of Andreas' work, go to his website: [http://www.andreas-buisman.com/andreas\\_buisman/pages/index.php](http://www.andreas-buisman.com/andreas_buisman/pages/index.php)

### ***Federation Rocks Update: display now complete***

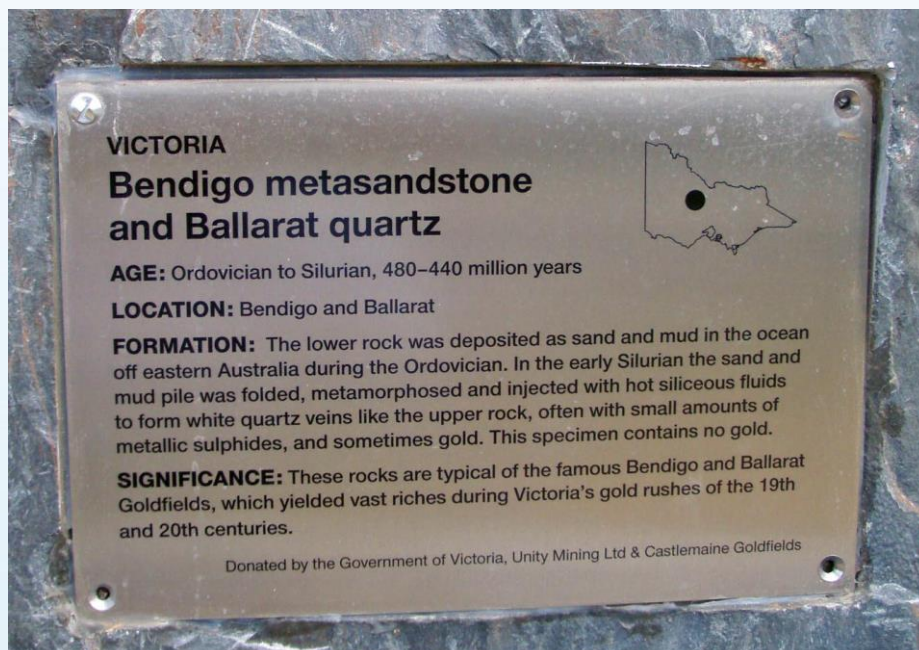
After several months of searching for a suitable replacement for our stolen Victorian rock, Castlemaine Goldfields offered us the perfect specimen from their Ballarat mine – a nearly 2 tonne block of quartz, with no visible gold. Like our other rock specimens, it was carefully loaded onto a truck and transported to Canberra, where our stonemason took delivery and assessed how best to display it. As it turned out, the specimen fitted perfectly where the stolen rock had been mounted – atop the largest (6 tonnes) of the two remaining Victorian rocks – and this time we have secured it very firmly in place, to the point where if anyone were to try to steal it, they would have to take both it and the 6 tonne rock beneath. We have also taken the opportunity to install a new plaque, which, this time, includes a statement that the rock contains no gold!



*Photo: Newly installed Victorian Federation Rock, donated by Castlemaine Goldfields mining company, with transport and installation paid by the Victorian Government. Image courtesy Brad Pillans*



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*Photo: The new plaque for the Victorian Federation Rock display, pointing out the lack of gold! Image courtesy of Brad Pillans*



*Photo: Looking Southwest to the newly installed Victorian Federation Rock. The new plaque on the WA rock is clearly visible in the foreground. Image courtesy Brad Pillans*



## ***Masterplan Launch***

***Mike Smith, NRG Director and Brad Pillans, Chair of the NRG Steering Committee***

On Monday November 24, the National Rock Garden Trust launched its Masterplan at Questacon, The National Science and Technology Centre, in Canberra. During the launch, the National Rock Garden (NRG) Steering Committee also celebrated the arrival of a spectacular 2 tonne rock slab containing nearly 200 beautifully preserved fossil fish dating from the Devonian Period, around 360 million years ago (see article below).

The launch of the Masterplan follows a year after the inauguration of the NRG, by the former ACT Chief Minister Katy Gallagher commemorating the Centenary of Canberra. The installation of eight large Federation Rocks is adjacent to the site of the future NRG, adjoining the National Arboretum Canberra and the Lindsay Pryor National Arboretum.

The Masterplan launch was opened by Professor Graham Durant, the Director of Questacon and a member of the Australian Government's Senior Executive Service and a Divisional Head in the Australian Government Department of Industry. Graham is an experienced museum and science centre leader, with a distinguished academic background, who originally trained as a geologist at the University of Wales. NRG Director, Professor Brad Pillans – the second speaker for the launch – told the audience that the Masterplan, which was produced by landscape architects Taylor Cullity Lethlean (TCL), outlines an exciting vision for the future NRG and its main structural elements. TCL also designed the Masterplan for the award-winning National Arboretum in Canberra. Brad also noted that the construction details of the NRG will be discussed with senior staff of the National Capital Authority (NCA) to ensure compliance with all NCA guidelines.

The proposed key elements of the 5 hectare NRG include an excavated gallery (about the size of a soccer field) displaying some of the most spectacular exhibits, an amphitheatre, a 120m long gallery wall representing 4.5 billion years of Earth history, five excavated gorges displaying rocks from different periods of geological time, an entry structure and, surrounding these elements, a Geological Walk with meandering paths along which large rocks will be displayed in naturalistic settings. Formal approval for each stage will be required from NCA prior to the commencement of any works on site.

The NRG Masterplan provides a vision for a dramatic and uniquely Australian display of diverse rocks, fossils and ores in an appropriately landscaped setting that enhances the shapes, colours, and textures of the exhibits whilst allowing a wide cross section of visitors to explore aspects of geoscience and its cultural and economic significance. Brad said "It will be a permanent, globally unique, high profile national facility with particular appeal to school students, tourists, rock-hounds and any person with an interest in the formation of our continent, and the spectacular fossil fish slab from Canowindra is expected to be one of our star exhibits". This slab was generously provided by the Age of Fishes Museum, in Canowindra, NSW. It will be displayed at Questacon from early 2015 until the NRG is constructed and able to receive the rock slab for permanent display.

Following the formalities, the audience mingled with the speakers over drinks and canapés. They also discussed features of the fossil slab with staff from the Age of Fishes Museum.



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*Photo: Professor Graham Durant, the Director of Questacon.  
Image courtesy Graham Carr*



*Photo: Professor Brad Pillans, NRG Steering Committee Chair.  
Image courtesy Graham Carr*





*Photo: Dr Alex Ritchie, Age of Fishes Museum.  
Image courtesy Graham Carr*

## ***Rock of the Month – Spectacular specimen for NRG***

***Mike Smith, NRG Director and Brad Pillans, Chair of the NRG Steering Committee***

During the launch of the NRG Masterplan (see article above) Dr Alex Ritchie, former Curator of Fossils and now Senior Fellow at the Australian Museum in Sydney, described the history of the 1955 discovery of the spectacular Devonian age fossil site and explained the characteristics of the fish species preserved in the spectacular rock slabs which have been recovered and stored under the management of the Age of Fishes Museum in Canowindra. One of these slabs (number 4) has been donated to the NRG and will be displayed at Questacon from early 2015 until the NRG is able to receive the rock slab for permanent display.

For the keen palaeontologists reading this newsletter, the fossil remains are dominated by two kinds of strange armoured fishes belonging to a long extinct group of Placoderms. *Bothriolepis* and *Remigolepis* had paired fins which were encased in bony plates and hinged to the trunk armour. Parts of two specimens are from another armoured fish, *Groenlandaspis*. In total, the Canowindra site hosts at least eight species. The largest are the air-breathing lobe-finned sarcopterygians, a group that included the ancestors of the first vertebrates to invade dry land, the tetrapod amphibians.

The Masterplan launch also featured a video clip of Sir David Attenborough enthusiastically discussing the significance of the Canowindra fossils with Dr Ritchie.

Mr Warren Keedle and Mr Bruce Loomes, from the Age of Fishes Museum, officially unveiled the fossil fish slab at the launch.

For additional information about the Age of Fishes Museum in Canowindra, please visit [www.ageoffishes.org.au](http://www.ageoffishes.org.au)



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*Photo: Alex Ritchie talking about Fish Slab #4 with the launch attendees.  
Image courtesy Graham Carr*



*Photo: L-R Warren Keedle, Alex Ritchie, Monica Yeung and Bruce Loomes  
from the Age of Fishes Museum. Image courtesy Graham Carr*

*Note: Much to the concern of other launch attendees, the staff were sitting on Fish Slab#4, but we were re-assured sitting on the slab is harmless. In the background behind Warren you can see a cast of another fossil slab.*



## ***Australian Landscapes***

The Australian Garden in Cranbourne Victoria tells the story of water travelling in Australia, from the centre of the country to the coast. The Australia Garden is an immersive experience and showcases plants and the relationship of the environment and people. They also have great rocks and building stones too!

Taylor Cullity Lethean who did the design of our Masterplan also designed the Australian Garden. The Australian Garden is managed by the Royal Botanic Gardens Victoria. <http://www.rbg.vic.gov.au/visit-cranbourne/attractions/australian-garden>



*Photo: Rocks displayed at the Australian Garden, Cranbourne, Victoria.  
Image courtesy Sue Fletcher*

If you have an interesting landscape photo and description to share, please send it to:  
[rockgarden@gsa.org.au](mailto:rockgarden@gsa.org.au)

## ***Online***

### **National Rock Garden Masterplan**

Please download the Masterplan from the NRG website (note this is a large file).

<http://www.nationalrockgarden.org.au/assets/News-letters/M1310140904Rock-Garden-MP-WEB-4-small.pdf>



## Mobile APPS describe Building Stones in Brisbane

A mobile App has been recently released which enables visitors to Brisbane to access information about the geological materials that have been used in the city's historic buildings. Similar Apps are anticipated to be developed for visitors to the National Rock Garden in years to come so that visitors can obtain details about the rock specimens. This would reduce/eliminate the need for lengthy text on plaques.

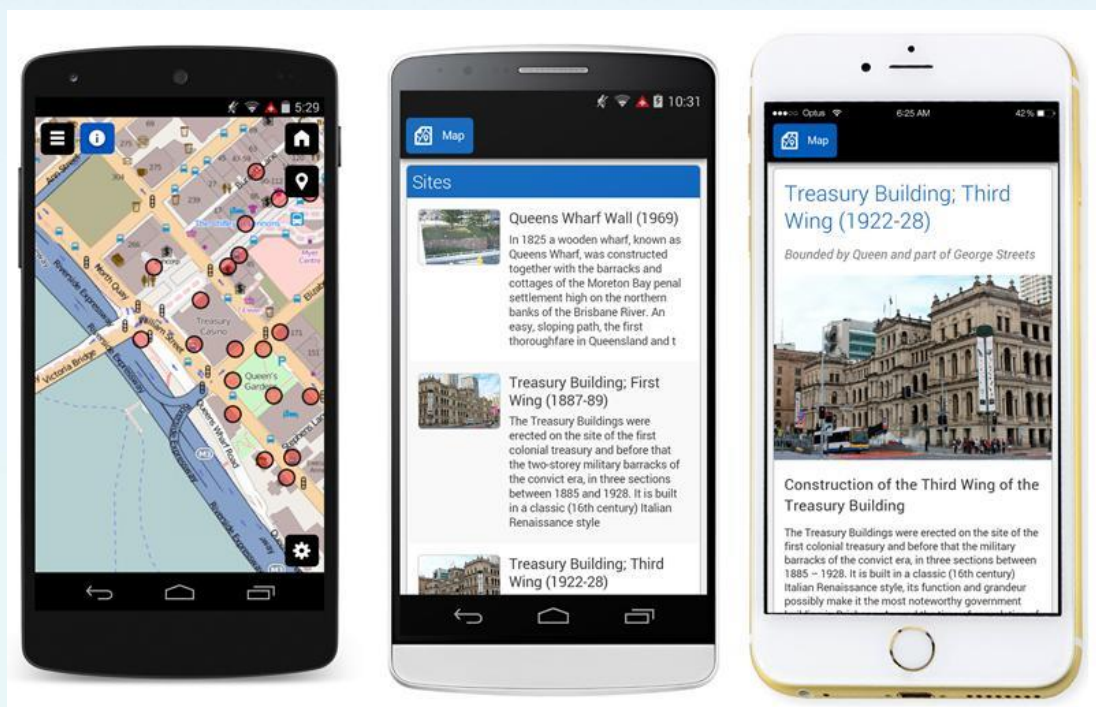
In Brisbane, these building stones range from the warm brown sandstone of large civic structures such as the City Hall and Parliament house to granites and exotic marbles from around the world.

The Queensland Division of the Geological Society of Australia first documented these buildings as a self-guided walking tour, and this guide was made available during the International Geological Congress in Brisbane in 2012.

This tour has since been extended and built into a mobile app that is now available for free download from the Google and Apple stores. The app provides a GPS linked map which enables hot-links to the history of each building together with descriptions of the building stones and recent and historical photographs.

The Geological Society of Australia provided the content which has been configured on the mobile App through the Global GBM Enterprise Mobility suite.

More information is available from [www.globalgbm.com](http://www.globalgbm.com) or by contacting Mr Ken Moule, Chief Technical Officer, Global GBM, Level 2, 143 Charlotte Street Brisbane, 07 3210 0741 [ken@globalgbm.com](mailto:ken@globalgbm.com). Global GBM is a world leading developer of Enterprise Mobility Solutions. The company delivers map enabled mobile apps to government and businesses across the globe.



*Photo: Views of Building Stones of Brisbane APP. Image courtesy Global GBM.*



Do you have a link to a YouTube clip or online resources you think the National Rock Garden community would like to see? If you do, please post it on our FaceBook page.

### ***Feedback and further information***

We welcome feedback and suggestions on the development of the National Rock Garden. See the feedback boxes on the National Rock Garden website: [www.nationalrockgarden.org.au](http://www.nationalrockgarden.org.au)

### ***Tax deductible***

The National Rock Garden is a registered Charity and all donations are tax deductible. Making a donation to the National Rock Garden is a great way to reduce your tax and feel good too! To make a donation, please visit the NRG website or phone (02) 9290 2194.

### ***Providing a Bequest to the National Rock Garden***

#### ***Introduction***

The purpose of the National Rock Garden (NRG) is to celebrate Australia's rich geological heritage in a parkland setting within the National Capital, with a permanent display, showcasing the diversity of the rocks and minerals that contribute so significantly to the nation's landscape, heritage and prosperity. A detailed description of the NRG is available at [www.nationalrockgarden.org.au](http://www.nationalrockgarden.org.au)

Individuals can make a significant contribution to future generations by providing assistance during the creation of the NRG or providing support for the ongoing evolution and maintenance of the NRG.

However, you don't need to be a geologist or a scientist or a business executive to make this kind of contribution. By making a bequest to the National Rock Garden, you too have the opportunity to make an enduring contribution to the accomplishment of the purpose to the NRG. The gift will also honour you, your family or someone close to you, for generations to come.

A bequest may include gifts of the residuary of an estate, a percentage of an estate, a specific sum of money or a particular asset such as real estate, a work of art or a parcel of shares. No matter what form it takes, a bequest advances the learning and discovery of Australian students, their family members and overseas visitors – those who are here today, and those who will be here 100 years from now.

#### ***Draft Bequest Wording***

A will is a very personal statement. We strongly recommend that you consult with your legal adviser before drafting a new will or updating an existing one. We suggest that the wording below be used to indicate your intention to make a general or a targeted bequest to the National Rock Garden. Should you require specific assistance with endowment language, please call (02) 9290 2194.





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### ***General Purposes Bequest:***

“I give [insert [insert dollar amount or % of my residuary estate] to **The National Rock Garden Trust**, ABN: 41 435 443 328, care of Suite 61, 104 Bathurst Street, Sydney NSW 2000, for the general purposes of the National Rock Garden and I direct that the receipt of the Secretary or Public Officer for the time being of the National Rock Garden Trust is an absolute discharge to my executors.”

### ***Specific Purposes Bequest – NRG Rock Specimen:***

“I give [insert [insert dollar amount or % of my residuary estate] to **The National Rock Garden Trust**, ABN: 41 435 443 328, care of Suite 61, 104 Bathurst Street, Sydney NSW 2000, to locate transport and set in place one or more specific large rock specimens within the National Rock Garden (“Purpose”) and I direct that the receipt of the Secretary or Public Officer for the time being of the National Rock Garden Trust is an absolute discharge to my executors.”

### ***Specific Purposes Bequest – NRG Education, Publicity and Promotion:***

“I give [insert [insert dollar amount or % of my residuary estate] to **The National Rock Garden Trust**, ABN: 41 435 443 328, care of Suite 61, 104 Bathurst Street, Sydney NSW 2000, for the promotion of the educational goals of the NRG, the compilation of descriptions of the of the rock specimens and production of electronic listening devices for use by visitors to the NRG (“Purpose”) and I direct that the receipt of the Secretary or Public Officer for the time being of the National Rock Garden Trust is an absolute discharge to my executors.”

### ***Recognition of Bequest (TBC)***

A bequest will be recognised appropriately by the directors of the National Rock Garden Trust.

## ***Sponsoring the National Rock Garden***

Building the National Rock Garden will take the participation of many volunteers, involve different tiers of government, provide work for contractors, designers and builders and ultimately involve many organisations and people. As highlighted above, we need major donors and sponsors to work with us as we build this national monument in the nation’s capital. If you or your organisation would like to be financially involved, please contact Mike Smith [mike\\_rpgeo@optusnet.com.au](mailto:mike_rpgeo@optusnet.com.au), Prof. Brad Pillans, [brad.pillans@anu.edu.au](mailto:brad.pillans@anu.edu.au) or Sue Fletcher, [sue@gsa.org.au](mailto:sue@gsa.org.au)

## ***Newsletter***

***Compiled by Sue Fletcher. Edited by Kate List, Michelle Cooper and Brad Pillans***

### ***National Rock Garden***

The newsletter is circulated twice a year, ordinarily December/January and June/July. New “friends” are welcome and can be added to the email circulation list by contacting the editor. You don’t have to be an Earth scientist. Members of the public, students and educators with an interest in the evolution of the Australian continent are all welcome. Newsletters are also posted on the National Rock Garden website.

[www.nationalrockgarden.org.au](http://www.nationalrockgarden.org.au)

***Keep up with the latest NRG news, rock movements, rocks of the month and a whole lot more.  
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**[www.nationalrockgarden.org.au](http://www.nationalrockgarden.org.au)**