


APPENDICES

APPENDIX 1

LETTER OF GREETINGS FROM POLLICHIA AND NEUMAYER CERTIFICATES




Georg von Neumayer Stiftung

der

(1907 / 2008)

POLLICHIA und POLLICHIA

Verein für Naturforschung und Landespflege e.V., gegr. 1840
Nach § 60 Bundesnaturschutzgesetz anerkannte Landespflege-Organisation
in Rheinland-Pfalz



Georg von Neumayer Stiftung und POLLICHIA
Bismarckstr. 33, 67433 Neustadt/Weinstraße

**Grußwort des Präsidenten der POLLICHIA
und
Vorsitzenden der Georg von Neumayer Stiftung**

PD Dr. Hans-Wolfgang Helb

**an das Organisationskomitee des
Georg von Neumayer Symposiums 2009
in Melbourne**

VORSTAND

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Der 100. Todestag Georg von Neumayers am 24. Mai 2009 ist Anlass, an vielen Orten seiner zu gedenken.

Zeit seines Lebens war Georg von Neumayer seiner POLLICHIA, dem naturforschenden Verein der Pfalz, eng verbunden.

Seine Impulse, die er dem Verein als Vorsitzender gab, wirken noch heute nach. Im Pfälzischen Museum für Naturkunde – POLLICHIA-Museum ist ihm eine eigene Abteilung gewidmet. Die Georg von Neumayer-Stiftung der POLLICHIA fördert auf vielfältige Art und Weise junge Wissenschaftler. Mit einer so genannten Neumayer-Deklaration während des Georg von Neumayer-Symposiums im Jahre 2001 wurde das Internationale Polarjahr 2007-2009 angestoßen.

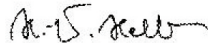
Die Benennung der deutschen Antarktis-Station nach Georg von Neumayer sowie die schon vor 100 Jahren erfolgten Benennungen von 12 Punkten auf der Erde und eines Kraters am Südpol des Mondes zeigen die zeitlose Wertschätzung seiner Person in aller Welt.

Die beiden übersandten Urkunden nehmen besonderen Bezug auf seine Arbeit in Australien. Mit der Urkunde des Freien Deutschen Hochstiftes, welches im Geburtshaus Goethes seinen Sitz hat, wird er im Jahr 1864 in den Kreis der seinerzeit wichtigsten Deutschen eingetragen.

Die Aufnahmeurkunde in die älteste wissenschaftliche Akademie der Welt, der LEOPOLDINA, nimmt ganz speziell Bezug auf Neumayers wissenschaftliche Verdienste in Australien.

Die Pfalz und die Pfälzer feiern ihren großen Sohn in diesem Jahr besonders. Georg von Neumayer und seine Leistungen, die er in Australien und für die Polarforschung erbracht hat, werden weiterhin im öffentlichen Bewusstsein verankert bleiben. Zahlreiche nach ihm benannte Straßen und Schulen sowie Denkmäler und die Ehrenbürgerschaften der Städte Kirchheimbolanden, Frankenthal, Neustadt und Bad Dürkheim tragen dazu bei.

Die POLLICHIA und die Georg von Neumayer Stiftung der POLLICHIA wünschen dem Symposium einen erfolgreichen Verlauf und grüßen alle Teilnehmer sehr herzlich.



PD Dr. Hans-Wolfgang Helb

Neustadt / Kaiserslautern, 24.04.2009

Letter of Greetings from President of POLLICHIA, Dr Hans-Wolfgang Helb on behalf of the POLLICHIA Verein für Naturforschung und Landespflege (Association for Nature Research and Land Care) and as Chairman of the Georg von Neumayer Stiftung (Foundation), to the Organising Committee of the Georg von Neumayer Symposium, Melbourne dated 24 May 2009.

GEORG VON NEUMAYER FOUNDATION OF THE POLLICHIA
AND THE POLLICHIA SOCIETY FOR NATURE RESEARCH
AND CONSERVATION

Greetings of the President of POLLICHIA and
Chairman of the Georg von Neumayer Foundation
Dr Hans-Wolfgang Helb

to the organisational committee of the Georg von Neumayer Symposium 2009 in Melbourne.

THE 100th anniversary of the death of Georg von Neumayer on 24 May 2009 is reason to remember him in many places.

During his life Georg von Neumayer was closely connected to his POLLICHIA, the nature research society of the Pfalz. The impulses that he gave the Society as Chairman still operate today. In the Pfalz Museum for Natural History—POLLICHIA Museum, a special department is dedicated to him. The Georg von Neumayer Foundation of the POLLICHIA encourages young scientists in various ways. The International Polar Year 2007–2009 was inaugurated with a so-called Neumayer declaration during the Georg von Neumayer Symposium in 2001.

The naming of the German Antarctic station after Georg von Neumayer as well as the naming of 12 places on the earth 100 years ago and a crater at the south pole of the moon demonstrates the timeless esteem for him in the whole world.

Both the documents forwarded take into account his work in Australia. In 1864 he was entered into the circle of the important Germans of his time by the document of the Free German Academy (Fig. 1), which has its seat in the house where Goethe was born. The admission document into the oldest scientific academy of the world, the LEOPOLDINA (Fig. 2), takes quite special account of Neumayer's scientific services in Australia.

The Pfalz and the people of the Pfalz particularly celebrate their great son this year. Furthermore Georg von Neumayer and his work, which he produced in Australia and for Polar research, remain firmly established in the public consciousness. Numerous streets and schools named after him, as well as monuments

and the honorary citizenship of the cities of Kirchheimbolanden, Frankenthal, Neustadt and Bad Dürkheim contribute to this.

The POLLICHIA and the Georg von Neumayer Foundation of the POLLICHIA wish the Symposium to have a successful running and very sincerely greet all participants.

PD Dr Hans-Wolfgang Helb
Neustadt/Kaiserslautern, 24.04.2009.
Translation courtesy of Dr T Darragh



Fig. 1. Georg von Neumayer's Certificate of Membership of the Free German Bishopric of Sciences, Arts and General Education, Frankfurt on Main, dated 11 February 1864.

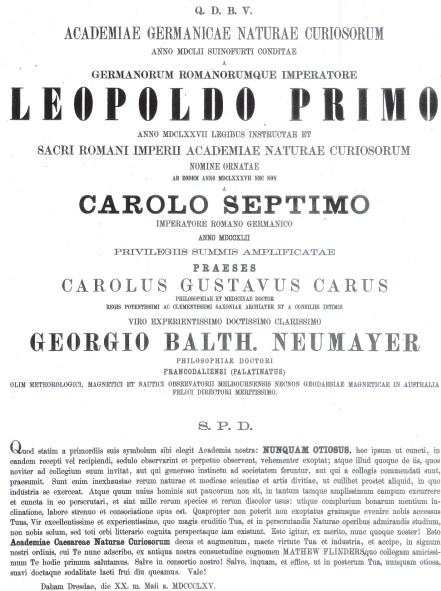


Fig. 2. Georg von Neumayer's Certificate of Membership of the German 'Academy of the Curious as to Nature' LEOPOLDINA, dated 20 May 1865. The Academy is now known (2007) as the German Academy of Sciences.



Georg Balthasar von Neumayer Gravesite Commemoration Neustadt/Weinstrasse 24 May 2009.

APPENDIX 2

SYMPOSIUM DISPLAYS

EUGENE VON GUÉRARD AND GEORG VON NEUMAYER:
RECORDED JOURNEYS

RUTH PULLIN

2009 C.H. Currey Memorial Fellow at the Mitchell Library, State Library of New South Wales.

Guest curator, *Eugene von Guérard: Nature Revealed*, National Gallery of Victoria,

16 April–7 August 2011

Email: ruth.pullin@gmail.com

BORN in Vienna in 1811, the landscape painter Eugene von Guérard painted in Italy and Germany before making the adventurous decision to travel to the other side of the world to explore the landscapes of the Australian 'new world'. He arrived in December 1852 and spent 13 months on the Ballarat goldfields (he experienced only modest success as a miner), before making Melbourne the base for his career as a landscape painter. In the 1850s and 1860s, inspired by Alexander von Humboldt's ideas about art and the role of the artist, von Guérard embarked on a series of sketching expeditions to some of the most rugged and remote reaches of the colonies of Victoria, South Australia, New South Wales and Tasmania. He joined Georg von Neumayer on two of the expeditions undertaken by the scientist as part of his magnetic survey of the Colony of Victoria. In April 1862 von Guérard and the telegraph engineer S.W. McGowan joined Neumayer and the artist Nicholas Chevalier on an expedition to the densely vegetated and sparsely populated region of Cape Otway on the southern tip of Victoria's western coast. Later in the same year he travelled with Neumayer, his assistant Edward Brinkmann and a guide, John Twynham on an expedition through north eastern Victoria that culminated in the ascent of Australia's highest peak, Mt Kosciuszko. A local guide, Mr Weston, joined them for the final ascent.

Parallel accounts of the two expeditions on which the scientist and the artist travelled together survive

in von Guérard's small, pocket-sized sketchbooks and Neumayer's descriptive account of the journeys, published in his *Results of the Magnetic Survey of the Colony of Victoria 1858-1864*. Methodically inscribed and dated, the sketches can be securely linked with the relevant passages from Neumayer's 'Narrative'. Neumayer appears in a number of the drawings, reproduced below along with related passages from Neumayer's text.

ACKNOWLEDGEMENTS

The drawings are taken from: Eugene von Guérard, Sketchbook XXXIII, 1862, DGB16, vol. 12, Dixon Galleries, State Library of New South Wales. All drawings are reproduced with the kind permission of the Dixon Galleries, State Library of New South Wales.

REFERENCE

- NEUMAYER, G. von, 1869. Narrative of the various trips and excursions in connexion with the Magnetic Survey. In *Results of the Magnetic Survey of the Colony of Victoria 1858-1864*, Schneider, Mannheim.



Fig. 1. Cape Otway: April 1862. Above *N.1 Nachtlager*; *McGowans Zelt* [tent]; *Neumayers Zelt* [tent]. Below *N. 2 Passage of the/Glory hole*, 1862. Pencil, pen and ink, 9.5 x 16.0 cm, Eugene von Guérard Sketchbook XXXIII, 1862, DGB16, vol. 12, fol. 6, Dixson Galleries, State Library of New South Wales.

At about 10h we passed the *Glory Hole*, a group of rocks where it is necessary to jump down to a rock about 12 feet below, with a chance of tumbling into the sea, a proceeding which I could not well enter upon as all the barometers would have gone to pieces in the attempt. Messrs. Chevalier and de Guérard and myself had therefore to round this place by forcing our way through the scrub, which was so exceeding dense that we had sometimes to stop, perfectly exhausted, and it took us more than an hour and a half to make a distance of little more than three eighths of a mile (Neumayer 1869: 55-56).

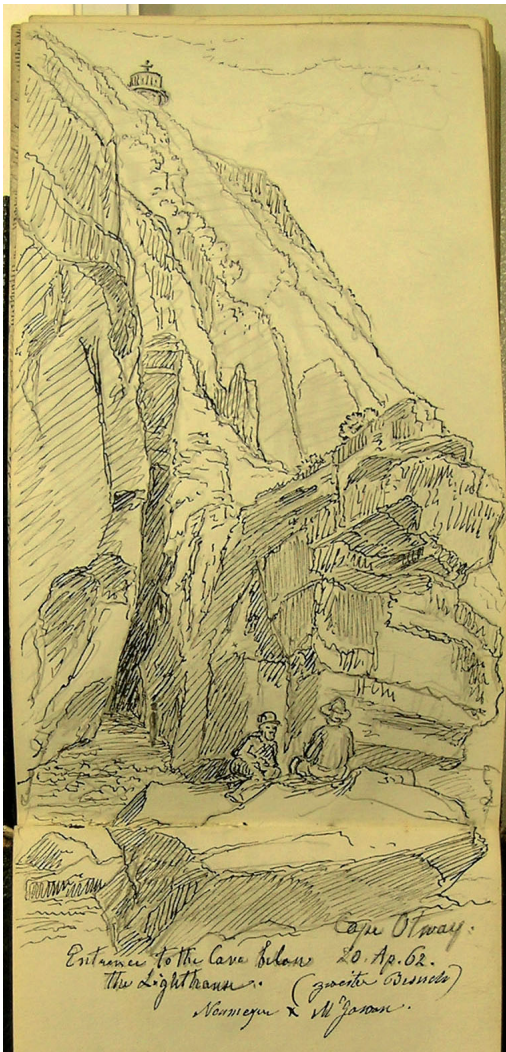


Fig. 2. Cape Otway: April 1862. *Cape Otway/Entrance to the cave below the lighthouse/Neumayer & McGowan*, 20 April 62. 1862. Pen and ink over pencil, 16.0 x 9.5 cm. Sketchbook XXXIII, 1862, DGB16, vol. 12, fol. 9, Dixson Galleries, State Library of New South Wales.

Met with a very kind reception at the light-house on the part of Mr. Ford, the light-house keeper and Mr. Payter, the telegraph station-master. In the evening inspected the lantern of the light-house, a beautiful revolving light, making one revolution every three minutes (Neumayer 1869: 56).

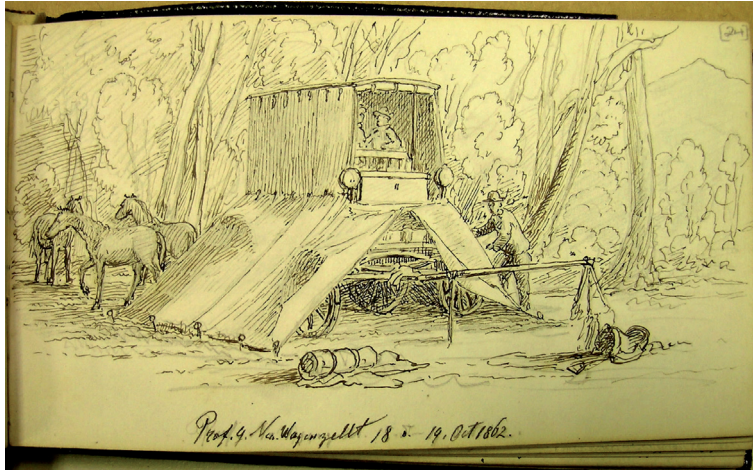


Fig. 3. Trip to Mount Kosciuszko: October to December 1862. *Prof. v N. Wagon Zeltt* [sic] 18-19 Oct 1862, 1862. [Professor von Neumayer's wagon tent]. Pen and ink over pencil, 9.5 x 16.0 cm. Eugene von Guérard Sketchbook XXXIII, 1862, DGB16, vol. 12, fol. 24. Dixon Galleries, State Library of New South Wales.

In the year 1861, therefore, I procured a light american waggon [sic] for the Survey, with the special object of transporting the instruments gently and easing the labour of the two horses which I put to it. I very soon became sensible of the advantage of this conveyance over the old spring-cart, a box between the axle-tree of the hind-wheels was well adapted for the reception of the instruments and to protect them against severe shocks and other accidents; besides this, I could make better arrangements for packing the necessary camping and cooking utensils as well as provisions, and grain for the horses... (Neumayer 1869: 1-2).



Fig. 4. Trip to Mount Kosciuszko: October to December 1862. *Benalla. Observation P* [Professor] Neumayer, 24 Oct 62, 1862. Pencil, 9.5 x 16.0 cm. Eugene von Guérard Sketchbook XXXIII, 1862, DGB16, vol. 12, fol. 27. Dixon Galleries, State Library of New South Wales.

Fine pleasant morning on the 24th. Station Benalla, about a mile from the bridge across the Broken River, on the road towards Wangaratta, the only available place on account of the forest. The instrument put up and adjusted. Engaged in magnetical and astronomical observations. Dense forest all round. The geological formation is Silurian. The magnetic theodolite was put up close to three large trees, one of which was marked in my usual manner (Neumayer 1869: 68).

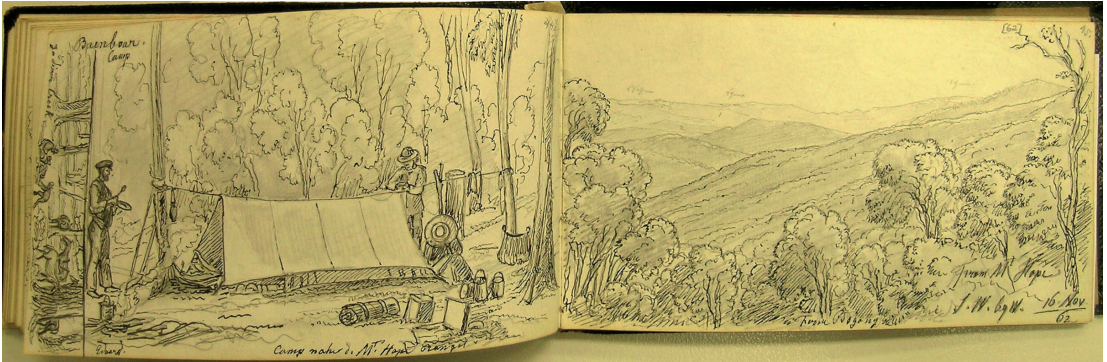


Fig. 5. Trip to Mount Kosciuszko: October to December 1862. *Buenboar Camp, camp near the Mt Hope Ranges; From Mt Hope, 16 Nov. 62, 1862.* Pen and ink over pencil, 9.5 x 32.0 cm. Sketchbook XXXIII, 1862, DGB16, vol. 12, fol. 61. Dixon Galleries, State Library of New South Wales.

At two o'clock severe weather approached from the West and soon afterwards a thunderstorm broke over our heads, such as I have rarely witnessed. The hailstones were size of pigeon's eggs and larger, and I entertained some serious apprehensions for the safety of men and horses, for the lightning evidently struck some of the immense trees quite close to us. The barometer constantly oscillated between 25".31 and 25".43 during the whole time the storm lasted, nearly 1 ¼ hours. As soon as the hail ceased I determined to go and see what had happened to our guide. ... On arriving at our last night's camp [Buenboar] we were agreeably surprised to find Mr. Twynham there (Neumayer 1869: 75).



Fig. 6. Trip to Mount Kosciuszko: October to December 1862. f. 72. *Berge von N. bis N.E. .v. der Spitze d. Mt Kosciusko gesehen; 19 Nov. 62, 1862.* [Mountains of the north to north east seen from the peak of Mt Kosciuszko]. Pen and ink over pencil, 9.5 x 32.0 cm. Eugene von Guérard Sketchbook XXXIII, 1862, DGB16, vol. 12, fol. 72. Dixon Galleries, State Library of New South Wales.

At 1h p.m. we reached the Snowy Peak (7140), but the wind was so very strong and the granite boulders, of which the summit is composed were so piled up, that I did not think it prudent to take the barometers to the top and accordingly mounted them some 40 ft. lower down. ... M. de Guérard, meanwhile had seated himself on the summit, which affords a beautiful view of the mountainous country of New South Wales and Victoria, as well as the plains of the Murray River, and was taking a sketch of the scenery, when, just as I was completing my observations, he called out that it appeared to him that a heavy storm was approaching from [sic] the New South Wales side.

... I told Edward to run up and fetch the maps ... he had scarcely quitted the party when a terrific gale set in from West and the whole top of the mount was enveloped in dense clouds, the rain falling in torrents. Seeing the danger he was exposed to ... I cried out to him in order to recall him, but, unfortunately, this had the effect only of recalling the dog and thus leaving Edward to his own resources... (Neumayer 1869: 77-78).

Dr Ruth Pullin is the Guest curator of *Eugene von Guérard: Nature Revealed*, National Gallery of Victoria, 16 April- 7 August 2011. She was awarded the 2009 C.H. Currey Memorial Fellow at the Mitchell Library, State Library of New South Wales to undertake research on the Library's collection of von Guérard's sketchbooks.

APPENDIX 2 *cont'd*

'NEUMAYER'S METEORITE' CRANBOURNE METEORITE NO 13.



APPROXIMATELY 4.5 million years ago the Cranbourne region of Victoria, 20 km south-east of Melbourne, experienced a heavy meteorite shower.

In February 1861, Neumayer travelled to the Cranbourne area and identified what had been thought to be a series of iron outcrops as two iron meteorites. Again in February 1862, Neumayer, ac-

companied by the Director of the Geological Survey of Victoria, Alfred Selwyn and his geological surveyor, Richard Daintree, visited the site to witness the removal of the two meteorites, Cranbourne No 1 weighing approximately 3550 kgs and Cranbourne No 2 weighing approximately 1500kgs. (Refer to Douglas Morrison's article page 48). Cranbourne No 1 was subsequently sent to the British Museum (now the Natural History Museum), where it remains today as their largest meteorite exhibit. During 2007, it was relocated, after 150 years, from the Museum's Old Meteorite Gallery to the Museum's Earth Today and Tomorrow Gallery.

Since the 1860s, a further 10 smaller meteorites have been discovered along a defined shower flight path and in August 2008, Cranbourne Meteorite No 13 was found. This 80 kg octahedrite iron fragment has a mottled colouration of brown, purple red and orange, and is displayed by courtesy of Museum Victoria.

APPENDIX 3

VOYAGING TOWARD AUSTRALIA AND
NEUMAYER'S *300 VOYAGES FROM EUROPE TO AUSTRALIA*

DEREK REID

Former Research Meteorologist, Australian Bureau of Meteorology and CSIRO Atmospheric Research

GEORG von Neumayer arrived in Melbourne on the 27th January 1857 with a comprehensive set of instruments provided by the King of Bavaria and the intention of setting up a Class 1 geophysical and astronomical observatory as was the usual practice before the invention of the electric telegraph. Before he approached the Victorian Government he made contact with the German community. He also sought a suitable site for the magnetic measurements, almost certainly his primary interest, having studied and made field surveys under the astronomer and physicist J.V. Lamont.

It was not until the 15th June that Neumayer asked for an observatory to be built in the Domain to

the east of the Yarra River. In response he was offered the use of the Flagstaff Signal station on condition that meteorological observations would be made. The building had been built in 1839, and from 1840 to 1851 observations had been made there in response to a request from the British Government. His request would have posed problems for the Government, as Robert Ellery at the companion Williamstown site had been fulfilling the observing requirements since 1853. In addition, a time ball was dropped daily from a flagstaff on the site, and from August 1853 a time ball was also dropped at Flagstaff Hill, using visual observation, until telegraphic communication was established in 1854. He trained the weather observ-



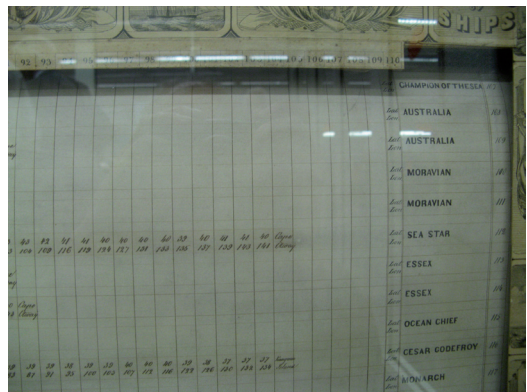
Neumayer's Chart (Scroll) of 300 Voyages from Europe to Australia showing Cabinet and Title.

ers, whose names were recorded in the first register of observations, thus freeing himself to make extensive excursions for his magnetic survey.

Neumayer was an active member of the Exploration Committee of the Royal Society of Victoria and trained William Wills, who was a member of his staff, in navigation and maintained a good working relationship with Robert Burke. He accompanied the Burke and Wills expedition into New South Wales, and then returned along a different route for magnetic survey.

His concern for the safety of ships at sea led Neumayer to set up a facility for regulating chronometers and repairing instruments that was advertised in the maritime notices of the Gazette. In return he asked captains to let him copy the daily positions of ships from their logs and compiled a 'chart'.

The chart, now known as the Neumayer Scroll (above and right), is housed in the Public Records Office, Melbourne, and is actually a 1270 mm wide scroll with an exposed vertical dimension of 745 mm made up of four sheets of foolscap paper glued



Neumayer's Scroll showing section of ship names in the margin.

APPENDIX 3 *cont'd*

lengthwise across the cloth backing. The chart was set in a heavy wooden cedar case designed for mounting on a wall, and behind a glass front the chart could be scrolled vertically. For each of the 300 voyages, Neumayer recorded across the chart: the serial number, name of ship, date of first observation at sea, up to 110 daily noon longitude and latitude positions in two rows, and finally the date of sighting Cape Otway. Thus the number of days at sea was recorded without the complication of leaving and entering ports.

The result is a unique record for an epoch in which the high point of wooden sailing ship design

of the emigrant ships built in Canada is contrasted with the older tradition European fleet, which is well represented, doubtless due to Neumayer's eclectic internationalism.

In his analysis in the volume on Navigation, Neumayer divided voyages into three sections: from the first position on the Atlantic to the latitude of Cape St Roque 5° 7' S, thence to the Greenwich meridian, and finally to the destination, usually Cape Otway. Neumayer presents some data with precise positions and, in the case of the ships which he had equipped with instruments, pressure, temperature and wind data.

APPENDIX 4

SYMPOSIUM DELEGATES AND ORGANISED VISITS



Delegates to the Georg von Neumayer Anniversary Symposium 27–30 May 2009. Front row left to right: Professor Jörn Thiede, Mr. Wolfgang Kusch, Emeritus Professor Rod Home, Dr. Reinhard Krause, Dr. John Zillman.

Visit to the former site of the Flagstaff Observatory, Melbourne.



Former site of the Flagstaff Observatory, Melbourne. Left: Plaque recording the establishment of the original Signal Station 19 September 1840. Above: Plaque in memory of Georg Balthasar von Neumayer erected in 1985.

Below: Delegates at the site of the former Flagstaff Observatory Melbourne.



Visit to the Williamstown Observatory, Melbourne.

Left: Timeball Plaque. Above: View of Williamstown Observatory site and Timeball Tower erected 1857, replacing earlier wooden structure erected in 1848.

Visit to the Melbourne Observatory, Melbourne Botanic Gardens and Von Neumayer’s Residence, Domain Road, South Yarra (adjacent to the Melbourne Botanic Gardens).



Melbourne Observatory, Melbourne Botanic Gardens.



Inspecting one of the many telescopes at Melbourne Observatory.



Neumayer’s Melbourne residence, Terrace House at No 119 Domain Road (cnr Hope Street) South Yarra (adjacent to the Melbourne Botanic Gardens), view showing basement observation windows along footpath.

Neumayer’s Melbourne Residence, showing Neumayer in his Basement Observatory—observation windows (shown in figure above) at top left hand side of picture.

