

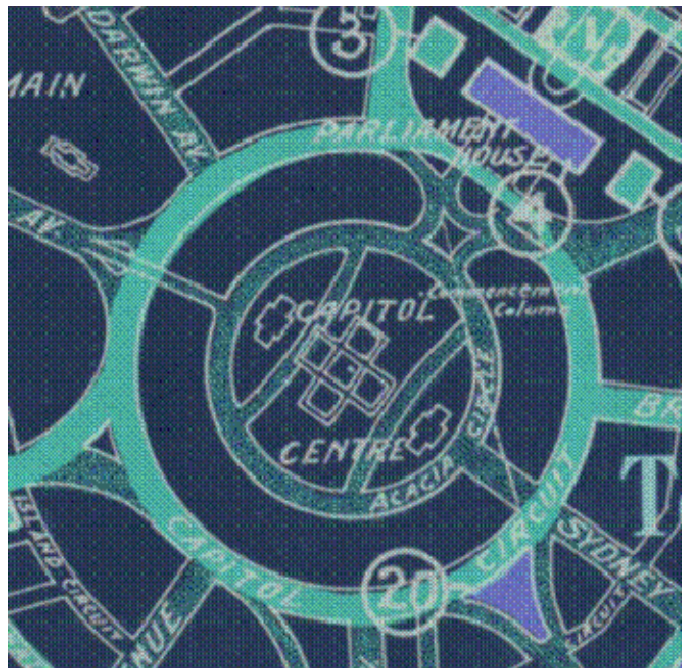


**AUSTRALIAN MAP CIRCLE
35TH ANNUAL CONFERENCE**

<http://australianmapcircle.org.au/amc2007>

Finding the limits...

Programme & abstracts



The National Library of Australia

Canberra, ACT

11–14 February 2007

AMC 2007 Conference Sponsors:





Australian Map Circle 2007 Conference

Welcome to the Australian Map Circle (AMC) 2007 Annual Conference at the National Library of Australia, Canberra. Our last conference in Canberra was in 2000. We are very pleased to welcome you back.

You will find the programme of activities and abstracts for the papers, together with brief biographies of the speakers, in this volume.

General Information About the Conference

Venue.

All papers will be presented at the National Library of Australia. The National Library is located on Parkes Place in Parkes, Canberra.

Transport.

Delegates should make their own travel arrangements to the conference venue. The National Library of Australia is well-served by public transport, especially from Canberra centre (Buses 31, 34, 36, 39, from Platform 8). Visit ACTION Bus Services: <http://www.action.act.gov.au/>

For those using private cars, there is ample on-site free parking at or near the Library. The technical tours and site visits will take conference delegates to other locations around Canberra. Bus transport will be provided for these activities.

Meals.

Morning teas, lunch and afternoon teas are provided each day for all delegates and for speakers. The Welcome afternoon tea on Sunday and the Conference Dinner on Tuesday are also included in the full registration. The conference dinner will be held at Ottoman's Restaurant, Cnr Broughton & Blackall Streets, Barton, 7pm, Tuesday 13 February.

Accommodation.

Canberra provides a wide selection of accommodation. The Library is most accessible from hotels near the city on Northbourne Avenue, and from inner suburbs.

Five Star

Novotel Canberra (65 Northbourne Avenue)

Has confirmed the following conference rates: Sunday 11 Feb, \$150/room night, Mon- Wed, 12-14 Feb \$180/room night. To take up the conference rate, you can book directly with Novotel Canberra and quote ref#NLA100207.

Phone 02 6245 5000.

City and adjacent

City Walk Hotel (backpackers) (2 Mort Street, Canberra City 2601)

Freecall: 1800 600 124 Ph: (02) 62570124 E. <http://www.citywalkhotel.com.au/>.

University House (1 Balmain Crs , Acton ACT, 2601)

Ph: (02) 6125 5270. E. <http://www.anu.edu.au>.

Canberra Rex Hotel (50 Northbourne Avenue, Braddon, ACT 2612)

Ph. (02) 6248 5311. E. reservations@canberrarexhotel.com.au,

<mailto:reservations@canberrarexhotel.com.au>>

Inner south

Teloopa Inn on the Park (16 New South Wales Crescent, Forrest 2603 ACT)

Ph. (02) 6295 3722

Forrest Inn (30 National Circuit, Forrest 2603 ACT)

www.forrestinn.com.au

Ph. (02) 6295 3433. Reservations 1800 676 372

Best Western Motel Monaro (27 Dawes St, Kingston)

Ph. (02) 6295 2111

Victor Lodge Bed & Breakfast (29 Dawes St Kingston 2604)

Ph. (02) 6295 7777. www.victorlodge.com.au

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A Conference “door prize” is eligible to all fully registered (all of conference) attendees, and will be drawn at the Conference dinner, Ottoman Restaurant, Tuesday 13 Feb, and announced at the Wednesday morning session. First and only prize is a complete set of HEMA maps.



About the Australian Map Circle

The Australian Map Circle Inc (AMC) is a national group of map producers, users and curators, which acts as a medium of communication for all those interested in maps. Membership of the AMC is available to anyone who is interested in maps. The AMC was founded as the Australian Map Curators' Circle in 1973.

The aims of the AMC are:

- To promote communication between producers, users and curators of maps;
- To improve the skills and status of persons working with map collections; and,
- To promote the development and effective exploitation of map collections throughout Australia.

The AMC Annual Conference is held in a different city each year. All aspects of map use and mapping are discussed and the proceedings of the conference are published as part of the journal of the AMC, *The Globe*. The diversity of the papers presented at the AMC's annual conferences reflects the broad interests of its members. Topics covered at these conferences include mapping and history, map production techniques, the cataloguing and archiving of maps, government policy and technological change.


Membership of the AMC is available to anyone who has an interest in maps. Subscription rate for an individual is \$30.00 per year, for which you receive the AMC journal, *The Globe*, and the occasional *Newsletter*.

For more details or for a membership brochure, please see our website:

<http://australianmapcircle.org.au> or write to

Australian Map Circle
PO Box 4206
University of Melbourne Vic 3052
Australia.

Programme:

SUNDAY 11 th February, Conference Welcome at the Australian Memorial, Treloar Crescent, Campbell, 1:00-5:00pm. Includes afternoon tea and tours of the Memorial & Mt Ainslie lookout.					
8:45am Register	MONDAY 12 th		TUESDAY 13 th		WEDNESDAY 14 th
9:15am	P Keynote : U Miracles, Maps & Memory L Annabelle Pegrum, I CEO, National Capital Authority C	9:00am	The State of National Mapping 50 Years On. Geoscience Australia Ian O'Donnell & Andrew Beer	9:00am	Address: Spatial Sciences Institute
					9:15am
9:45am	S Pushing the City's Limits: The Griffins' Visionary Ideas And Ideals For Canberra E S S I O N	9:40am	Australian Hydrographic Service charting Kevin Slade	9:45am	Atlas of Australian Birds: A Tale of two Atlases Henry Nix
		10:20am	Charting the Chartless. Reconstruction from Contemporary Records of Two Explorers' Tracks in Torres Strait Allen Mawer	10:15am	This Sporting Life. Students Mapping the Geography of Australian Sport Amy L Griffin
				10:45am	Atlas panel discussion
10:30am	Tea break		11:00am	Tea break	
11:00am	Mr Scrivener's Predecessors Greg Wood	11:20am	The Role of the Map in the Southern Continent's Imagining and European Discovery of Australia Avan Stallard	11:20am	Mapping the Southern Skies Dr Paul Francis
11:40am	Surveyors at the Snowline. Surveying the ACT-NSW Border 1910-1915 Matthew Higgins	12:00pm	The Edge of the Ocean Michael Ross	12:00pm	Crossing the Digital Divide. Online Mapping Census data from the ABS website Michael Beahan
12:20pm	The Impact of the Bombala, Dalgety and Yass-Canberra Survey Terry Birtles	12:40pm	Understanding Australia's Marine Boundaries Bill Hirst	12:40pm	Dredging the Database. Reconstructing the Early Melbourne Landscape Bernie Joyce
1:00pm	Lunch		1:10pm	Lunch	
2.00-2.40pm	Cataloguing Australian Charts in the State Library of Victoria. Judith Scurfield	2:00-4:00pm	Tour of Geoscience: 3D theatre, visits to Mapping, Geology, Petroleum and Marine Groups, and demonstration of Tsunami Warning System.	2:00-3:00pm	POSTER SESSIONS
3.00-5.00pm	Tour of Surveyors' Park & National Museum of Australia's exhibitions.			3:30-5:00pm	Australian Map Circle <u>AGM</u>
		Tuesday 7:00pm: Conference Dinner Ottoman's Restaurant Blackall St, Barton ***Guest speaker: Dr Jeff Brownrigg		5:00pm	Presentation of Estelle Canning Memorial Prize, and Close of Conference.

Abstracts:

Miracles, Maps and Memory – Canberra’s past drawn into its future

Annabelle Pegrum (Keynote address)

Even a cursory reading of the early history of Australia’s national capital, Canberra, is enough to make one aware of the vision, courage and, above all, global awareness of the diverse set of individuals involved in the city’s first crucial articulation. From a distance of nearly a century, one can still admire: the small miracle of exactly the right site selection by the Federation fathers; the genius of the Griffin Plan (first rendered a hemisphere away, site unseen); the landscape sensitivity of both the Griffins, keen readers of the natural world wherever they found it; and the City Beautiful/Garden City foundations established in the first decades of the twentieth century that have become our generation’s fortunate, indeed unique legacy.

In the *Griffin Legacy* study launched in December 2004, the National Capital Authority sought to understand all the implications of those original plans, and to apply the key, unexplored yet still relevant components to Canberra’s design future. We have a responsibility to future generations to build creatively and sympathetically on the past. This presentation will provide an overview of the intricate connections between Canberra’s planning and planners—past, present and future—and David Headon and Stuart Mackenzie, to follow, will flesh out some of the engaging detail.

Annabelle Pegrum: Ms Annabelle Pegrum has been the Chief Executive of the National Capital Authority (NCA) since 1998. Before joining the NCA, she held a number of senior executive positions with the ACT Government, including Chief Executive of the ACT Department of Business, the Arts, Sport and Tourism. In 1998 she was the Telstra ACT Business Woman of the Year. Annabelle has extensive professional experience as an architect and an academic. She is a Fellow of the Royal Australian Institute of Architects (RAIA), was awarded the 2005 RAIA ACT Chapter President’s award, is an Adjunct Professor in Architecture at the University of Canberra and is an Honoured Friend of the Canberra Institute of Technology.

Pushing the City's Limits: The Griffins' Visionary Ideas And Ideals For Canberra

Stuart Mackenzie and David Headon

When Walter Burley Griffin and Marion Mahony Griffin entered their winning plan in the international competition to design the "Capital City" of the Commonwealth of Australia, they imagined the southern hemisphere country as a burgeoning nation 'of most democratic tendencies and bold radical government...' For the 'nature and liberty loving' people of Australia, Walter gifted 'an ideal city—a city that meets my ideal of the city of the future'. Recoiling from 'the mongrel styles' of the past, the Griffins' entry No.29, with its rich range of maps, texts and drawings (and the refinements which followed in arduous circumstances from 1913 to 1920) represented the finest expression, arguably, of international town planning expertise at that time.

Such a statement involves no hyperbole, for in the 25 years from 1890 to the outbreak of World War One, what was known as the new 'science of town planning' had emerged amidst a flurry of grand designs, ideas and resonant phrases such as 'Garden City', 'City Beautiful', 'organic design' and 'horticultural suburbs'. European and American cities had emerged from the Industrial Revolution blackened and disease-ridden. At the turn of the century (the time of the Australian Federation), many employed in the professions of architecture, engineering and emergent landscape architecture worldwide were adamant that something had to be done. Human beings simply had to come up with new and better and healthier ways to live together. Likewise, living with the land was a pressing issue. The form of cities, overgrown and blighted, had to be rethought from first principles to be reconciled with the landscape they so unsympathetically occupied.

Chicagoans Walter and Marion, both of whom were heavily influenced by the World's Columbian Exposition held in their hometown in 1893; who both worked with the likes of Louis Sullivan and Frank Lloyd Wright as members of the world-leading Prairie School of architects and landscape thinkers; who both read voraciously and eclectically in the sciences and humanities; and who ultimately decided to pursue jointly the more elevating aspects of their profession and its organic course into town planning, knew all about Australia from a young age. Like their older contemporary and countryman, Walt Whitman, they regarded the colonies of Australia, the new states of the Commonwealth, as a fresh page of human development potentially free of the Old World's moribund practices and the American New World's corruption and preoccupation with imitation and things material. So the Griffins came to design an ideal city for a brand new and happily distant democracy. Canberra, beyond the smog-filled horizon of the northern hemisphere, would shine a light for the possibilities of urban living in the new century. It would be a model city, celebrating its landscape and pushing the limits of thinking for the 'science of town planning'. In this presentation, full of examples of the Griffins' elegant and engaging maps and drawings, we will show why.

Stuart Mackenzie: Stuart Mackenzie is Principal Urban Designer at the National Capital Authority (Canberra). He is a co-author of the NCA's recently published *The Griffin Legacy – the Nation's Capital in the 21st Century* (2004), the most significant planning strategy to be prepared for the central areas of Australia's national capital in decades. *The Griffin Legacy* has been widely acclaimed, receiving National Awards for Excellence from both the Planning Institute of Australia (*Urban Design*, 2005) and the Australian Institute of Landscape Architects (*Research and Communication*, 2006). Stuart's expertise in historical cartography and urban planning was instrumental in compiling *The Griffin Legacy's* rich selection of maps and plans associated with the creation of Canberra as 'an ideal city'.

Born in Sydney, Stuart now resides in Canberra. With qualifications in architecture and landscape architecture, he has worked in Australia and the USA, in both the private and public sectors. He has a passion for early Australian mapping and planning, believing that an historical perspective is critical to understanding the evolutionary processes of city-making. Many Australians are unaware of the cultural significance of the maps that have shaped the landscape we inhabit.

David Headon: David Headon is Cultural Adviser to the National Capital Authority (NCA) and the former Director of the Centre for Australian Cultural Studies (Canberra). He taught Australian and American cultural studies for fifteen years at UNSW (Australian Defence Force Academy). Dr Headon is a regular commentator on cultural issues on ABC radio (regional and national). His publications include: *North of the Ten Commandments – a Collection of Northern Territory Literature* (1991), *Crown or Country - The Traditions of Australian Republicanism* (1994), *The Abundant Culture – Meaning and Significance in Everyday Australia* (1995), *Our First Republicans: Selected Writings of John Dunmore Lang, Charles Harpur and Daniel Henry Deniehy 1840–60* (1998), *Makers of Miracles, the Cast of the Federation Story, Manning Clark's, 'The Ideal of Alexis de Tocqueville'* (2000), *The Best Ever Australian Sports Writing – a 200-Year Collection* (2001) and *The Symbolic Role of the National Capital – from Colonial Argument to 21st Century Ideals* (2003). He was project co-ordinator, editor and co-author of *The Griffin Legacy* (2004).

Mr Scrivener's Predecessors

Greg Wood

In December 1908, the Federal Government asked Charles Robert Scrivener to assess possible sites for the Federal Capital in a locality it somewhat untidily described as the "Yass-Canberra district". Scrivener, who had earlier undertaken a similar role in relation to a possible national capital site at Dalgety, presented his initial report on Canberra in February 1909, finalizing a more detailed study in May/June 1909. His name is intimately intertwined with the choice of Canberra as the site of the capital.

However, even prior to Scrivener's involvement, there had been a number assessments undertaken, some positive some negative, of Canberra as a potential capital site. This paper examines Mr Scrivener and his predecessors, particularly those whose work was initiated and sponsored by the New South Wales Government of the day. The paper in particular examines some neglected, but historically important, cartographic depictions generated by this process.

Greg Wood: Greg Wood, a long-standing member of the Australian Map Circle, has had a lifelong interest in the history and cartography of early Canberra, and the work of Charles Scrivener. He is now actively researching the field and in August presented a paper entitled "*Title Fights*" on the earliest years of the national capital, to the *Capital Chats* series organized by the National Capital Authority. Currently a consultant, he was formerly Australian High Commissioner to Canada, Deputy Secretary of the Department of Prime Minister and Cabinet, and held a range of senior positions in the Foreign Affairs and Trade Portfolio, in Australia and abroad. He also chaired a Review of Medical Research for the New South Wales Government, was a Member of the Administrative Review Council and of the Snowy Mountains Engineering Corporation Advisory Board.

Surveyors at the Snowline. Surveying the ACT-NSW Border 1910-15

Matthew Higgins

Ever wondered why the ACT border is such a strange shape? Do you know that the highest point on the border is only 300 metres lower than Mt Kosciuszko? Ever wondered how the border was determined in the first place, and when and how it was physically marked?

This presentation is based on a research and field project conducted in 1996 and in 1998-99. It will look at the reasons behind the shape of the ACT and why the border is where it is. It will look at how the border was surveyed and the experiences of the three surveyors, Percy Sheaffe, Harry Mouat and Freddie Johnston who carried out the survey over five years 1910-15. Travelling mainly by horse and on foot, camping out in some of Australia's most rugged mountain country and using equipment primitive by today's standards, the three survey teams achieved a high level of accuracy in their work. All three surveyors went on to greater heights in the surveying profession and two of them are commemorated in Canberra place-names today.

The project's field component aimed to find as many as possible of the original survey marks left by the surveyors along a sample section that amounted to about half the length of the boundary. Over 500 marks were found. The marks are a significant part of the Territory's, and Australia's, heritage, and relate to the very birth of the capital territory. Sadly, many of the timber marks and engraved reference trees were lost in the 2003 bushfires.

The presentation will be accompanied by slides showing historical and contemporary scenes.

Matthew Higgins: Matthew Higgins came to Canberra in 1982 and worked as an historian at the Australian War Memorial for seven years. From 1989 to 2001 he worked freelance in the history and heritage fields. During 2001-04 he was a Senior Conservation Officer at the Australian Heritage Commission, Department of Environment and Heritage. Since 2004 he has been a Senior Curator at the National Museum of Australia. Matthew has written about 80 publications, including three books, and has an abiding professional and personal interest in the Australian high country. As well as being a bushwalker and ski-tourer, Matthew makes short films.

The Impact of Bombala, Dalgety and Yass-Canberra Survey

Terry Birtles

This paper examines a selection of plans produced between 1900 and 1909 during the controversy over the best site for the future seat of Commonwealth government. By 1899, the colonial port capitals of Sydney and Melbourne had been excluded during the federation conferences. It was left to a meeting of colonial premiers to resolve and write into the Constitution that the location would be in NSW with a distance limit of at least 100 miles from the commercial influence of Sydney. At first, Bombala, about midway between the rival capitals was considered as an inland site, until the lure of Snowy River water supply during the seven-year Federation Drought drew interest towards Dalgety (gazetted in 1904). Sydney Chamber of Commerce concern that both sites might encourage growth of a federal port at Twofold Bay (Eden) led to agitation for a federal city closer to the 100-mile limit. Site considerations such as topography, access, water supply, sewage disposal and railway routes led ultimately to choice of Yass-Canberra. Most maps illustrated are held by the National Library of Australia.

Terry Birtles: Normally chases beef cattle as a breeder or trains miniature ponies on a lead, but currently they chase him whilst hand-feeding during drought removes all profits. In spare time, Terry leads potential military, naval and air force officers on fieldwork, as Visiting Fellow in Geography at ADFA (UNSW), after retiring during 2000 from the University of Canberra where he headed Applied Geography for 31 years. A former editor and review editor of *Cartography*, Terry has long been interested in maps and the surveyors who drafted them.

Charting Australian Waters: a survey of the British Admiralty charts of the Australian coastline in the State Library of Victoria

Judith Scurfield

This paper deals with the British Admiralty charts of the Australian coastline in the Map Collection of the State Library of Victoria. A project was undertaken in 2006 to list all such charts, about 630 in number, and add records for them to the Library's catalogue.

Judith Scurfield: Judith Scurfield has worked as Map Librarian at the State Library of Victoria for many years, and has a particular interest in 19th century maps, and charts of the Australian coast.

The State of National Mapping 50 Years On

Ian O'Donnell and Andrew Beer (Geoscience Australia)

Australia's national topographic mapping was initiated around 1956 to facilitate national development by the Division of National Mapping, in conjunction with Department of Defence. Over time the original goals have changed, replaced by new objectives centred on a national framework of topographic and thematic map information. Today's drivers are quite different from those of 1956 and this has placed a new perspective on what constitutes a national mapping program in 2007.

Geoscience Australia's National Mapping Information Group is the current incarnation of the Australian Government's mapping agency. Ian O'Donnell is the head of this group and the person responsible for the national topographic mapping program. Ian, together with Marketing Director Andrew Beer, will explain the evolution of the national mapping program and the directions the organisation is taking as mapping enters an exciting new digital age.

Ian O'Donnell: Ian is Group Leader of National Mapping and Information, in Geospatial and Earth Monitoring Division at Geoscience Australia. Ian O'Donnell leads the National Mapping & Information Group within Geoscience Australia. His previous role, prior to the merger with AUSLIG was Head of the Information Management Branch in AGSO- Geoscience Australia. He has in excess of 35 years experience with the geosciences and has formal qualifications in cartography, geology and management. In recent years he has been largely involved in shaping the strategic direction for topographic information in the organisation. Ian is the past Chair of the Intergovernmental Committee on Surveying and Mapping, a working group of the Australian New Zealand Land Information Council (ANZLIC), his two year appointment ceasing in June 2006.

Andrew Beer: Andrew is Director of Marketing in the National Mapping & Information Group, Geoscience Australia. He is an experienced marketing professional now providing his expertise to the spatial industry. Andrew's role is to not only promote the spatial products produced by the National Mapping Information Group of Geoscience Australia, but to also manage many of the relationships established by the group in response to its policy drivers. These include map retailers and wholesalers, emergency managers, publishers and other government spatial agencies.

History of the Australian Hydrographic Service, Royal Australian Navy

Kevin Slade

The Australian Hydrographic Service is a small organisation with a great responsibility. Its history was forged through the exploration of a new continent, through the establishment of a new country, and, not least, through periods of war.

The role of the Royal Navy and hydrographic or marine surveying in the exploration of Australia is well known. Post Federation, the need for an Australia hydrographic organisation was raised on a number of occasions within government and Defence. In October 1920, the Hydrographic Department of the Royal Australian Navy was established within Navy Office in Melbourne.

In 85 years of operations, ships, aircraft and personnel of the Australian Hydrographic Service [AHS] have undertaken surveys in the waters of Australia and the external territories including Antarctica. Cooperation surveys have been undertaken in Papua New Guinea, the South West Pacific, and in Timor Leste. During World War II the comparatively small strength branch achieved a distinguished record in its work in New Guinea waters.

Today the Australian Hydrographic Service operates within the Hydrographic, Meteorological and Oceanographic Force Element Group [HMFEG] which is the Australian Defence Force agency responsible for provision of operational military geographic information. The Australian Hydrographic Service is the Commonwealth Government authority responsible for the publication of nautical charts and publications required for the safety of ships navigating in Australian and adjacent waters. The organisation has its headquarters in the Australian Hydrographic Office [AHO] which also houses those parts of the organisation responsible for the assessment and management of hydrographic information, and production of navigational products.

Kevin Slade: Kevin had a career spanning 30 years in the RAN as sailor and officer in the Australian Hydrographic Service, specialising in hydrographic surveying where he participated in or conducted survey operations in Australia, Antarctica, Papua New Guinea, the South West Pacific and Indonesia. He spent two periods at the RAN Hydrographic School, which involved training naval, civilian and defence cooperation students in hydrographic surveying. After leaving the Navy in 1996, Kevin joined the Australian Hydrographic Office as Assistant Sailing Direction Officer in the Nautical Information Section and has been Manager of the Nautical Information and Publications Section since 2001.

Charting the Chartless. Reconstruction from Contemporary Records of Two Explorers' Tracks in Torres Strait

Allen Mawer

When the chart has been lost (or never existed) it is still sometimes possible to reconstruct the track of an historical voyage from contemporary accounts, but more than one interpretation may be plausible. This paper explains the methods used to reconstruct context and resolve contradiction in respect of the Torres (1606) and Gonzal (1756) voyages to the Strait.

Allen Mawer: Allen Mawer is the author of several works on maritime history, notably *Most Perfectly Safe* (1997), *Ahab's Trade* (1999) and *South by Northwest* (2006). He is currently working on *Antipodes: The Invention and Discovery of Terra Australis*, which he hopes to have with his publisher by mid-year. In 2006 he joined HMAS Benalla for a fortnight to conduct field research on Torres' track through the Strait. The results were published in the most recent issue of the Hydrographic Journal. Affiliation: *Australia on the Map 1606-2006*

The Role of the Map in the Southern Continent's Imagining and the European Discovery of Australia

Avan Stallard

The Greek concept of an Antipodes dates back almost as far as the notion of the earth's sphericity itself, and this is no coincidence. Cosmographical notions about the earth's composition and shape inevitably led to conjecture about what the other side of the world must look like. Terra Australis in its formative guise as the Antipodes served numerous roles: it explained why the earth did not topple off its axis (lest the hemispheres be imbalanced); it ensured Greek tenets of symmetry were satisfied; and it provided cosmographic and geographic order where, until the voyages of exploration in the Age of Discovery, none had before existed. Yet with the Age of Discovery, Terra Australis endured. It was shrunk, moved about and made to fit various cosmographic and geographic models, but not until the late eighteenth century – two thousand and one hundred years after its inception – was Terra Australis finally dislodged from its southern foothold. That the Greek idea of the Antipodes proved so resistant to change is evidence not of the truth that inhered in the notion, or of the credulity or ignorance of scholars across the ages, but of its potency as an idea. The southern continent's singular applicability to cosmographic, geographic, cartographic, imperial, mythologic and literary requirements ensured its adoption; its adaptability to changing empirical knowledge and shifting cultural and epistemological milieus ensured its survival. In this talk I will be proposing three arguments. Firstly, that the southern continent existed if not as an empirical place then as a geographical fact. Secondly, that the map was an essential instrument in the production, distribution, and legitimation of this geographical fact. Thirdly, that the exploration of the austral latitudes was in large part conditioned by this geographical fact.

Avan Stallard: I am a recent convert to the discipline of historical cartography, being more generally positioned as a student of Australian history within the University of Queensland's history department, where I am studying for my PhD. I am presently working on a thesis that puts together the seemingly disparate geographies of the Great South Land and the Australian Inland Sea under the one banner of imaginative geography. Some of my recent musings on maps appeared in the August 2006 edition of *National Library of Australia News*, in the article, "The miscraft of mapmakers".

The Edge of the Ocean

Michael Ross

Traditionally cartographers, historians, and the wider public have regarded early maps as showing the edge of the land discovered by explorers.

This has created issues about unknown discoveries, supposedly imaginary lands, and misplaced landforms. Terra Australis Incognita being a classic example. The conventional view is that these lands are imaginary, this despite the fact that their borders changed almost year by year.

This view represents and reflects a land-based viewer, with their unique perspective. By taking the alternative view, of the ocean-based explorer who actually reported the discovery, it is clear that these explorers were actually marking the edge of their exploration of the ocean. Sometimes this edge was defined by land.

This paper utilises a series of maps and charts of the Pacific Ocean to illustrate and explain this new perspective on global maritime exploration, casting a new light on Pacific exploration previously hidden from view.

Michael Ross: Michael Ross is the CEO of an international organisational performance consultancy, operating in the government and business sectors of New Zealand, Australia, Asia, the USA, and Canada. His passion is early European discovery of the South Pacific, particularly Tasman's remarkable expedition of 1642, which included landfalls in Tasmania, New Zealand, and Fiji. In 1992 Michael was commissioned to prepare the research brief for the Abel Tasman Commission funded TVNZ documentary to mark the 350th anniversary of Tasman's visit to New Zealand. When the research brief was completed he found himself with more questions than answers. For the next ten years he researched those questions to find answers to the puzzles.

In late 1999 Michael received an invitation to further his research at the Newberry Library in Chicago, where one of the world's most important 16th and 17th century map collections is held. As a consequence of that visit, in February 2001 Michael presented his answers to the "Tasman puzzle" in a paper "The Mysterious Eastland Revealed" at the Australian Map Circle Conference in Hobart, Tasmania. This paper was awarded the Estelle Canning Memorial Prize for best paper presented at the conference and was subsequently published in the peer-reviewed journal 'The Globe'. New Zealand academic interest was sparked, and Michael was invited to present a paper "Visscher's Eastland", at the New Zealand Map Society Conference in Hamilton in February 2002.

The cartographic aspects of Michael's research had identified significant flaws in previous academic research, and a second peer-reviewed paper, "Polus Antarcticus: a catalogue of four states" was published in The Globe. Permission to translate and re-publish this paper in the Dutch cartographic journal *Caert-Thresoor* was requested by their editorial board and granted by The Globe. Michael continued his research into the pre-Dutch European contact with Australia and New Zealand. In February 2004 he presented an update on that research, *The Mysterious Eastland*:

Fact or Fiction, tracing the appearance of pre-Cook coastlines back to 1589, to the joint Australian Map Circle & New Zealand Map Society Joint Conference, in Hamilton New Zealand.

In 2005 the New Zealand Map Society invited Michael to author the pre-Cook section of their reference publication "From Sextants To Satellites: A Cartographic Time Line For New Zealand", which was published in December that year. In that same year Michael was invited to join the Editorial Board of the Australian Map Circle's journal "The Globe".

In 2006 Australia marked the 400th anniversary of the first documented encounter by a European ship with the shores of Australia. The Duyfken, under Willem Jansz, reaching the west coast of what is now Cape York Peninsula, a few months before Torres passed through the Strait now bearing his name. One of the major activities to mark this anniversary was the Australian Map Circle's 34th Annual Conference held in Perth from 12-15 February. At that conference Michael chaired a panel of five international experts on the cartography of Australia – "Exploring 'Australia on the Map' - 1606-2006' – a personal perspective". Michael made presentations on both the first charts to depict Australia, and the modern internet-based digital mapping services. Michael was elected President of the Australian Map Circle at that Conference. In August 2006 Michael presented From The Duyfken To Tasman: The Dutch Discovery of Australia 1606 to 1644, as part of Australia on the Map, the Mapping and Surveying History (MASH) conference, held in Brisbane in August 2006.

Subsequently Michael coordinated the successful bid for, and has been appointed Chairman of, Te Taki o Autahi - Under the Southern Cross – the 2008 Joint International Map Collectors Society, Australian Map Circle, and New Zealand Map Society Conference to be held in Wellington in February 2008. In late October Michael was invited to address guests of the Australian National Maritime Museum in response to an earlier presentation by Gavin Menzies on his 1421 Chinese Discovery of the World thesis. The subject of Michael's address was "Sense or Non-sense: 1421, a metaphor for 'new' history".

Understanding Australia's Marine Boundaries

Bill Hirst (Geoscience Australia)

Australia is far bigger than most maps would have us believe. In fact Australia has rights and responsibilities over areas of sea and seabed exceeding our land mass. These rights and responsibilities are administered via an increasingly complex array of overlapping jurisdictions. Geoscience Australia determines the location of many of the boundaries of these areas.

This presentation describes some of the complexities and, at times, uncertainties, of Australia's maritime boundary network. Geoscience Australia's initiatives designed to improve access to maritime boundary information will also be described.

It is intended that this presentation lead to a greater understanding of the complexity of the marine jurisdiction, some of the uncertainties surrounding maritime boundaries, and how anyone can find out more about our marine environment.

Bill Hirst: Bill is Project Leader of Marine Spatial Information and Boundary Advice, at Geoscience Australia, in Canberra. In December 2006 Geoscience issued The Guidelines for Describing Maritime Boundaries. The Guidelines were prepared by Bill, with the advice and assistance of the Australian Government Office of Spatial Data Management's Marine Boundaries Working Group, to provide guidance to people involved in describing and mapping maritime boundaries.

An Atlas of Australia's Wars

Lieutenant-General John Coates

Lieutenant-General John Coates writes as follows. 'I have been asked, how did *An Atlas of Australia's Wars* come about. The answer is simple. It began for me in 1963, when I was instructing cadets at Duntroon in military history. One of the subjects was a study of Stonewall Jackson's 1862 Shenandoah Valley campaign in the American Civil War and I was casting about for a means to portray the subject more graphically than mere lectures. Fortunately, *The West Point Atlas of American Wars* had recently been published and I seized on the idea. I was impressed by the way that juxtaposing text and accompanying maps made campaigns and operations of war much easier to understand than mere verbal descriptions. My presentation examines the process of making *An Atlas of Australia's Wars*, from that general model. It covers all twelve wars in which Australians have fought since 1788, as well as the twenty-eight theatres in which parts of the Australian Defence Force have been deployed in peace-keeping operations. There are brief sections on where Australian prisoners-of-war have been held. Since wars are conducted at four levels simultaneously: political, strategic, operational, and tactical, both the narrative on the left and the maps on the right move continuously between those levels of analysis and description.

Lieutenant-General John Coates (Ret'd): Lieutenant-General John Coates served in the Australian Army for forty years, retiring as Chief of general Staff in 1992. He was educated at Ipswich Grammar School, Queensland, and the Royal Military College, Duntroon, from which he graduated in 1955. He returned later as its Commandant.

He served on exchange with both the United States Army at Fort Hood, Texas, and the British Army as a tank squadron commander in Germany in 1966-67. He commanded a Cavalry (Armoured Personnel Carrier) Squadron in South Vietnam 1970-71, for which service he was made a Member of the Order of the British Empire (MBE). He was made a Companion of the Order of Australia (AC) in 1992.

He is a graduate of the University of Western Australia and has a post-graduate degree in history from the Australian national University. Since leaving the army he has written three books: *Suppressing Insurgency: An Operational Analysis of the Emergency in Malaya 1948-54* (Westview Press, Boulder Colorado, 1992); *Bravery Above Blunder: the 9th Australian Division in New Guinea 1943-44* (Oxford University press, Melbourne, 1999); and, *An Atlas of Australia's Wars* (Oxford University Press, Melbourne, 2001), of which a second edition has just been published in November 2006. He is a Visiting Fellow in the School of Humanities and Social Sciences, University of New South Wales at the Defence Force Academy, where he is pursuing aspects of Australia's military history.

Atlas of Australian Birds: A Tale of Two Atlases

Henry Nix

The Royal Australasian Ornithological Union (RAOU) was founded in 1901 and for more than a century has been devoted to the advancement of knowledge and conservation of birds of the Australian region. Now operating as Birds Australia (BA) this members only, non-government organization has a proud record.

Planning for development of the first continental scale atlas of Australian birds began in the early 1970's and pilot surveys tested basic concepts and methods on the South Coast of NSW in 1973-74, the Adelaide region in 1974-75 and the Melbourne region in 1975-76. The first Australian Bird Atlas took five years to assemble the field data, from 1977 to 1981 and the Atlas was published in 1984.

Twenty years on, after continuing major changes in habitat and bird distribution, a second atlas survey was implemented from 1998-2002, resulting in publication of the New Atlas of Australian Birds in 2003. Much has been learned about the management of volunteers, data entry and data base development. GPS technology, enabling accurate geocoding of point surveys has freed up data analysis and mapping opportunities. Finally, the digital data base has become the major resource, eclipsing the published Atlas volumes.

Henry Nix: Emeritus Professor Henry Nix is a Visiting Fellow at the Centre for Resource and Environment Studies (CRES) at the Australia National University. He was Director at CRES from 1986-1999 and before that a Senior Principal Research Scientist in the CSIRO Division of Land and Water Research. With colleagues he has been directly involved in the development of terrain and climate modelling software now in use worldwide. His interest in maps is life long. Among other things he was the first to map the bathymetry of the Gulf of Carpentaria (manually) and to deduce that it was a lake for much of the Pleistocene period. He is a Life-member, former Councillor, Fellow and Past President of Birds Australia (2001-2005).

This Sporting Life. Students Mapping the Geography of Australian Sport

Amy L Griffin

Despite the fact that this generation of students has grown up immersed in visual stimuli, they generally have poor visual communication skills. In this paper, I report on the design of a general education course (which will first be taught in S1 2007) that aims to use the design of an atlas page as a vehicle for helping students to build their visual communication skills. Atlas page design is an ideal method for developing visual communication skills because it requires students to learn how to compile data, develop maps, statistical graphics and other graphical illustrations, and then integrate them with concise text. The non-geography students who will take this course will also have a chance to learn about how geographers view the world (i.e., spatially). The atlas topic was inspired by the December 2004 issue of *Sports Illustrated*, which included maps of American sport. The topic is one that will have a good chance at capturing students' attention and is also one that allows them to explore some aspect of any sport in which they have an interest.

Amy L Griffin: I am currently a Lecturer at the University of New South Wales-Australian Defence Forces Academy in the School of Physical, Environmental and Mathematical Sciences. Broadly, my research is focused on health-environment interactions and methodological issues in geographic information science. My recent cartographic work includes comparing map readers' abilities to detect clusters that move over space and through time from map animations and small multiple map representations, which I presented at the 2005 AMC meeting (**Griffin, A.L., MacEachren, A.M., Hardisty, F., Steiner, E. and B. Li. (2006). "A comparison of animated maps with static small-multiple maps for visually identifying space-time clusters." *Annals of the Association of American Geographers*. 96(4): 740-53.**). A second recent project looked at how experts interact with geospatial data, and the relationships between expert-user characteristics, geovisualization tool use and hypothesis generation.

Mapping the Southern Skies

Dr Paul Francis

I will briefly review the history of maps of the Southern sky, and how they differ from maps of the Earth. I will then describe the spectacular recent technological advances, which are allowing, for the first time, fully digital sky maps to be produced. I will then describe SkyMapper: a radically new telescope designed to replace a telescope destroyed in the 2003 Canberra bushfires. This telescope will, over the next five years, carry out the first fully digital survey of the whole southern hemisphere. We should be able to discover the most distant objects in the universe, the oldest stars in the Milky way, and new planets beyond Neptune. Particular challenges will include mapping the ten million or so moving and variable objects we will find.

Dr Paul Francis: Paul grew up in London, studied at Cambridge and is now a fellow at Mt Stromlo Observatory and a Senior Lecturer at the ANU. He does research on Comets and Galaxy formation.

Crossing the Digital Divide. Online Mapping Census Data from the ABS Website

Michael Beahan

The ABS Census program has always recognised the importance part mapping plays in assisting people to gain a spatial understand of data. In the past, products such as our Social Atlases and CDATA have formed an significant part of the suite of ABS Census products. The dissemination of data from the 2006 Census will see a number of innovations on the IT front.

For the first time users will be able to interact on-line with ABS data. The ABS and Space Time Research are jointly developing a number of web applications that will allow users to create and populate their own tables and graphically represent data via charts and thematic maps. The 2006 Census data will include over 6 million tables of data and more than one million thematic maps.

Michael Beahan: Michael joined the ABS four years ago as the Director of Census Products and Services. His current responsibilities are centred on the dissemination of data from the 2006 Census. He is a graduate of the University of Queensland where he completed a degree majoring in Mathematics and Geography. Prior to joining the ABS he worked for the then Department of Family and Community Services in the field of computer modelling.

Dredging the Database. Reconstructing the Early Melbourne Landscape from the 1860s Geological Quarter Sheet Maps

Bernie Joyce

Rather than attempting just to reconstruct the Pre-European Melbourne landscape from early maps and other records, as I did at the 2005 conference in Melbourne, I want in this paper to use only one set of maps of Melbourne and show how they can help us understand problems in the modern landscape.

The four detailed Quarter Sheet maps of the inner Melbourne area, published in colour by the Geological Survey of Victoria in the 1860s at a scale of 1:31,680, contain information on a landscape now drastically affected by later building and burial, excavation and drainage, and the transport of soil and rock. Original but now-altered features of the old landscape can be recognised on the Quarter Sheets, and a knowledge of their geological composition can help us understand the present landscape and the way it responds to rain and sun, wetting and drying, and the activity of engineers, quarrymen, builders, and landscape gardeners and planners.

Subtle but continuing effects in the modern landscape will be discussed for areas including:

- Batman's Hill – what has happened to the hill?
- the old course of the Yarra, and why passengers left their ship at Port Melbourne and walked to the new city
- the now-vanished West Melbourne Swamp of the modern Docklands area
- former ponds of Moonee Ponds Creek
- former high "islands" of Emerald Hill and St Kilda
- the vanished Port Melbourne lagoon (and the origin of the name Bridge Street?)
- the Elizabeth Street flood of 1971, down a former creek which marks the boundary between the two main rock types of the city
- lava flow below the modern Yarra River, and how its underlying river gravels have caused problems in the Burnley CityLink tunnels
- the former Elwood swamp (and continuing soil subsidence problems)
- cracking clays of North Carlton (supposedly the worst-affected suburb in Melbourne for house damage).

Bernie Joyce: After thirty-five years teaching geomorphology and surficial geology at the University of Melbourne, Bernie Joyce took early retirement from the position of Senior Lecturer in Geomorphology in January 1997 and is now Honorary Principal Fellow and Associate Professor in the School of Earth Sciences.

For forty years he has worked on the Newer Volcanics of Victoria, especially of the Western Plains. He co-authored the Geomorphology chapter in the *Geology of Victoria* volume published in 2003, and is a member and sometime chair of the Victorian Government's Geomorphological Reference Committee.

His work in geological heritage studies began more than 20 years ago as a member of the Geological Society of Australia. He has given conference papers and published articles and book reviews on aspects of the history of geology, with some emphasis on the history of the understanding of volcanoes in Victoria, and on the work of the geologists E. S. Hills and E. D. Gill

He is the departmental coordinator for the "History of the geology department Project" (H.g.d.P) in the University's School of Earth Sciences, and is studying the history of the Hills relief model of Australia, including material in the School's archives. Recently he became Chair of the GSA's ESHG Committee, replacing the late Neil Archbold.

After living in the inner Melbourne area for 40 years, he has now developed an interest in reconstructing the pre-contact landscape of the city and its inner suburbs.

The Australian Map Circle. Estelle Canning Memorial Prize

The Estelle Canning Prize was endowed by Victor and Dorothy Prescott, in memory of the Australian Map Circle's Vice-President 1997-98, who passed away on 20 September 1999.

The prize consists of \$250.00 plus a certificate awarded to the author presenting the best paper, as judged by the AMC President, at each AMC Conference from 2000 to 2009.

The certificate will be awarded at the conclusion of the conference.

The prize money will be sent to the winner once the winning paper:

- is submitted for publication to *The Globe* Editorial Committee;
- is corrected or amended by the winner as required by the editorial referees; and,
- is accepted for publication in *The Globe* by the Editorial Committee.

Past Winners

Conference	Winner	Title of Paper	Published
Canberra, 2000	Dianne Rutherford	'Captive Cartography. Map Production in Prisoner of War Camps in World War II'	<i>The Globe</i> No 50
Hobart, 2001	Michael Ross	'The Mysterious Eastland Uncovered'	<i>The Globe</i> No 53
Cairns, 2002	Ross Thomas	'Robert Logan Jack's Maps'	To be published
Sydney, 2003	Grant Kleeman	'Topographic Mapping Skills. The Classroom Challenge'	To be published
Hamilton (NZ), 2004	Brendan Whyte	'Lettering or Littering the Landscape. Readymix, Guinness and a Grader'	<i>The Globe</i> No 55
Melbourne, 2005	Amy Griffin	'Can Movement Help Map Readers see Clusters That Move Through Space and Over Time?'	To be published
Perth, 2006	Karen Cook	'The Desired Blessing. Thomas John Maslen and the Map of Australia in His <i>Friend of Australia</i> '	To be published