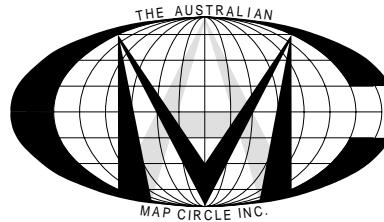


NEWSLETTER 89



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australianmapcircle.org.au

AMC 2004 CONFERENCE

Waikato University, Hamilton, New Zealand, 9-11 February 2004

The AMC's 32nd annual conference, for 2004, will be held in conjunction with the New Zealand Map Society at Waikato University, Hamilton, New Zealand, from 9-11 February 2004. Contact: John Robson, Map Librarian, University of Waikato, Hamilton, New Zealand, ph 64-7-856 2889 x8173, or 64-7-856 4807 ah. Email jrobson@waikato.ac.nz. A call for papers will be distributed shortly. More information: <http://www.australianmapcircle.org.au/amc2004/>

Membership of the New Zealand Map Society, including an annual journal and a newsletter, can be obtained via Karen Churton, Massey University, Palmerston North, NZ. email: K.D.Churton@massey.ac.nz

OTHER CONFERENCES

Spatial Sciences Coalition (AURISA/IEMSA/ RSPAA/ MSIA/ ISA) will host a joint conference in 2003. Conference 23-25 Sep, Workshops/Site Visits 21, 26/27 Sep. The largest spatial technical and vendor exhibition ever in the Southern Hemisphere, 23-25 September. Up to 1000 delegates are expected. <http://www.spatialscience.org/Conference/>

FIG World Mapping Colloquium, National Maritime Museum, Sydney, Sat 20 September. Fax enquiries to Linke & Linke, 61-2-91303278. http://www.fig.net/figtree/hsm/news/mash_2003.pdf

OTHER UPCOMING EVENTS

Robert Clancy is hosting a visit by renowned cartographic historian Prof. David Woodward (University of Wisconsin - Madison) in Sydney in September. For more information on Prof Woodward's visit, contact Prof Robert Clancy, phone: +61-2-4923 6135, fax: 61-2-4923 6998, email: rclancy@mail.newcastle.edu.au See David Woodward's website: <http://www.geography.wisc.edu/woodward/>

The Australian Map Circle Inc. Newsletter. ISSN 0811-9511.

An occasional series of newsletters produced to keep members of the Australian Map Circle informed about matters of immediate interest and to supplement *The Globe*, journal of the AMC. Edited by Brendan Whyte. Please send reviews, notices and other items of general interest for inclusion in future *Newsletters* and *The Globe* to:

Brendan Whyte
The Australian Map Circle Inc
c/- Department of Geography
The University of Melbourne, VIC, 3010, AUSTRALIA

Phone: (03) 8344 7123. Email: bwhyte@unimelb.edu.au

GST: The Australian Map Circle's ABN is **19 046 516 617**. As a not-for-profit association with an annual turnover of less than \$100 000, the ABN is not registered for and does not charge GST. Consequently, the AMC does not issue 'tax invoices', as these may only be issued by organizations that are registered for GST.

AMC PUBLICATION NOTES

AMC Newsletter issues back to #71 are online, at <http://australianmapcircle.org.au/newsletter/>

The Globe is now available on APAIS (Australian Public Affairs Information Service) Full Text. This allows users of APAIS, for example in subscribing Libraries across Australia, to read the complete text of articles from *The Globe*. This database is available for subscription on the Informit Online Internet service or on CD-ROM. For the former, see <http://www.informit.com.au> for the latter, see: <http://www.rmitpublishing.com.au> You can also contact RMIT Publishing directly on: ph: 3-99258100, fax: 3-9925 8134 or info@rmitpublishing.com.au

The Globe back issues are available at \$10.00 per copy, plus postage. The following issues are still in print: #9, 10, 11, 13, 14, 15, 16, 18, 19, 22, 24, 25, 28, 29, 30, plus all issues from no. 33 onwards. We may also be able to supply photocopies of issues that are out of print. Enquiries to John Cain, email: j.cain@unimelb.edu.au.

An up-to-date list of available back-issues, together with the Contents of issues 41 on, and Notes for Authors can be found on our website <http://www.australianmapcircle.org.au/>

A draft version of **The Globe Index**, for #1-41 is now available on the AMC website. This draft is provided for comments and feedback on indexing, format, layout and any other issues apparent to readers. Over the next few months indexing of *The Globe* nos. 42-50 will continue and we plan to publish the full index in printed and electronic formats during 2003. Feedback is most welcome and should be emailed to Joanna MacLachlan bandoola@bigpond.com and/or John Cain j.cain@unimelb.edu.au The draft index is provided in Adobe Acrobat (PDF) format and the document is 167kb in size. You can download Acrobat reader for free if you need to. The index is at: <http://www.australianmapcircle.org.au/globe.htm>

SPATIAL SCIENCES INSTITUTE FORMED

Merged: Members of five major professional bodies in the spatial sciences, already working together as the Spatial Sciences Coalition, have voted to merge to form a new association, the SPATIAL SCIENCES INSTITUTE The organisations are: Mapping Sciences Institute Australia (MSIA), Institution of Surveyors Australia (ISA), Remote Sensing and Photogrammetry Association of Australasia (RSPAA), Australasian Urban and Regional Information Systems Association (AURISA), Institution of Engineering and Mining Surveyors Australia (IEMSA). <http://www.spatialscience.org/>

OTHER UPCOMING CARTOGRAPHIC EVENTS

Cartographic Treasures at Harvard 16 Jun - Sept 2003.

The Harvard College Library in Pusey Library and the Houghton Library will hold an exhibition highlighting its map treasures, in conjunction with the 20th International Conference on the History of Cartography. Significant items will be selected from the Houghton Library's Leichtenstein Collection, the Harvard Map Collection, the Gutman Library of the Graduate School of Education, and the Harvard Collection of Historical Scientific Instruments.

Items include: Casper Vopel's ca. 1558 world map in 12 sheets; Jodocus Hondius' 1595 8 sheet map of Europe; John Seller's 1675 map of New England; Lewis Evan's 1749 map of the Middle British Colonies; Sanuto's 1588 atlas of Africa; Jeremy Belknap's 1796 manuscript maps of the boundaries between the U.S. and the Indians; a Korean manuscript atlas from the 17th century; Haestens 16th century 6 sheet map of Jerusalem; and Osgood Carleton's map of the United States and his 1797 map of Boston. Contact maps@harvard.edu.

Unfolding Landscapes: Maps of Cambridgeshire Elizabeth I to Elizabeth II 30 Apr - 18 Oct 2003.

Tracing the mapping of the County 1573-2003., Cambridge University Library's Exhibition Centre, West Road, Cambridge. Mon-Fri 9-6, Sat 9-4.30. (closed 25 Aug and 16-23 Sept inclusive). Admission free. There is a small promotional leaflet but no catalogue. Some images and further information can be found at: <http://www.lib.cam.ac.uk/exhibitions/unfold/index.htm>

Fellowships for 2003-2004 The American Geographical Society Library, University of Wisconsin-Milwaukee Libraries, seeks applications for Helen & John S. Best Research Fellowships. Stipend: \$375/wk, for up to 4 weeks, will be awarded to support Library research. The Fellowships are tenable between 1 Dec 2003 and 30 Nov 2004. Applications must be postmarked by September 15, 2003. Contact AGS Library, P.O. Box 399, Milwaukee, WI 53201-0399, USA, ph: 1-414-229-6282, email: agsl@uwm.edu url: <http://www.uwm.edu/Libraries/AGSC/>

MAP NEWS & WEBSITES

<http://www.cnn.com/2003/WORLD/europe/02/04/yugoslavia.end.ap/index.html>

Yugoslavia officially abolished Tuesday, February 4, 2003 Posted: 2:20 PM EST (1920 GMT)

BELGRADE, Yugoslavia (AP) --

Lawmakers have formally abolished Yugoslavia, replacing it with a loose union of its remaining two republics, Serbia and Montenegro. The approval by the two chambers of the Yugoslav parliament on Tuesday marked the demise of the troubled Balkan federation and the birth of a new country called Serbia and Montenegro, as outlined in a deal brokered by the European Union. The accord preserves the alliance of Serbia and Montenegro as the last of the six republics that once made up Yugoslavia. Before the wars in the 1990s, the federation also included Bosnia, Croatia, Macedonia and Slovenia. The lower chamber of the parliament voted 84-31, confirming an earlier 26-7 vote in the upper chamber. Serbia and Montenegro opted in 1992 to stay together as a rump Yugoslav federation. But the relations of the two republics have since soured -- especially under the former federal president Slobodan Milosevic -- and the EU last year mediated a deal aiming to prevent new upheaval in the volatile Balkans. The agreement envisages almost complete sovereignty for the two republics, which will be linked only by a small joint administration running defence and foreign affairs. Serbia's capital, Belgrade, will remain the capital of the whole country. "It is in the interest of both Serbia and Montenegro to stay together," said Serbia's vice-premier Miodrag Isakov, acknowledging that the republics "could go either way from here... creating a truly functional union or going completely separate ways." The deal allows Serbia and Montenegro to hold referendums on full independence in three years.

Captain Cook Society website <http://www.captaincooksociety.com/> For the Australian branch, contact Riemer Brouwer AustralianBranch@CaptainCookSociety.com There is also a separate online Cook discussion group at <http://groups.yahoo.com/group/captcook>

Finnish octo-junction. We all know Four Corners in the US, where 4 states meet, is a bit of a tourist attraction. In Finland, there is a point where EIGHT communes meet... on a small island in a peat swamp.

Map (see NE corner): <http://www.lpk.partio.fi/v-sp/krr/kuvat/kartat/kuhis4.jpg>

Photo of border marker (scroll down): http://www.lpv.fi/lsk/kohteet_hm/1712.htm

KULTTUURIYMPÄRISTÖOHJELMA: LISÄTIETOJA: Kuhankuono on historiallisesti merkittävä kahdeksan eri kunnan (Aura, Masku, Mynämäki, Nousiainen, Pöytyä, Turku, Vahto ja Yläne) yhteinen ikivanha rajakivi. Rajapyykki sijaitsee pikku kalliosaarella suuren, luonnonkauniin Kurjenrahkan kohosuon pohjoisosassa. Kuhankuono sekä Kurjenrahkan kansallispuistoalue ovat merkittäviä retkeilykohteita.

Which translates as:

Cultural environment program: Additional information: Kuhankuono is the historically significant ancient border stone marking the common point of eight different communes (Aura, Masku, Mynämäki, Nousiainen, Pöytyä, Turku, Vahto and Yläne). The border stone is located on a small rocky island on the northern end of the large and beautiful Kurjenrahka peat swamp. Kuhankuono and the Kurjenrahka national park area are notable travel destinations.

Community Access to Natural Resource Information (CANRI) OpenGIS project involving 10 NSW state government agencies. <http://www.canri.nsw.gov.au/>

AURISA GIS in Schools Competition 2003 <http://www.aurisa.asn.au/education/GISSchoolsComp.htm>

National Library of Scotland maps online <http://www.nls.uk/digitallibrary/map/early/index.html>

800 rare from 1560 to 1928, scanned and online. The NLS also holds the archives of Bartholomews mapmaking firm: manuscripts, correspondence, glass plate negatives etc.

Historical Japanese maps online <http://www.davidrumsey.com/japan/>

The David Rumsey project has scanned 100 maps from the 2300-map Japanese Historical Map Collection of the University of California Berkeley

Twin Peaks mapped! <http://www.geocities.com/Hollywood/2093/>

Maps of Washington, showing the location of the fictional town of Twin Peaks; of the region around Twin Peaks and a street map of the town. Under 'TV' on the menu on the left, click on 'Twin Peaks', then on the page that comes up, click on 'Twin Peaks maps' in the list of links at the bottom of the page.

Indian maps online: Berkeley has scanned a pile of Indian 250k sheets (US series AMS502) inc. parts of Pakistan, Afghanistan, Bangladesh and Burma. This link takes you to the index, then click on the picture for a listing. Each map is 3Mb <http://www.lib.berkeley.edu/EART/maps/india250k/india250k.html>

The **Western Pacific Archive** from the Foreign and Commonwealth Office, London, has been transferred to the University of Auckland. The archive covers FCO material from 1877-1978, including maps. This makes Pacific material much more accessible to Pacific researchers. See <http://www2.auckland.ac.nz/lbr/speccoll/pr.htm>

Geoscience Australia's Map Shop at Fern Hill, Bruce, ACT has relocated to Geoscience Australia's headquarters at the corner of Jerrabomberra Avenue and Hindmarsh Drive in Symonston ACT. The Freecall number 1800 800 173 is unchanged.

The **Howzat** website <http://www.earthsci.unimelb.edu.au/howzstat/> contains maps of cricket test-playing countries, showing their Test and One-day international venues (the link to the maps is at the bottom left).

New islands, the northernmost in the world: description, photos & link to map:

http://www.dpc.dk/PolarfrontenDPC/3_01/IslandsReport.html

A map locating the 60 **Australian 100k topo sheets** updated before funding for the revision ran out, is at: <http://www.ga.gov.au/nmd/products/fwdprogram/images/100k.gif> The last 3 sheets were in SW Victoria and released in May 2003. GA will investigate the feasibility of a Raster 100k DVD later this year.

The **250k topo series forward programme**, planned to update sheets every 5 years, is at <http://www.ga.gov.au/nmd/products/fwdprogram/250prog.jsp>

Geography resources (news, books, websites) from around the world: <http://www.qozi.com/geography/>

US timezones on a county-wise map of the Lower 48: <http://geography.about.com/library/misc/ntimezones.htm>

Micronations <http://www.geocities.com/capitolhill/5829/LIST.html> listing of and links to websites of micronations, from the Nation of Aaron to the State of Zvuts, taking in Hutt River and Bumbunga along the way.

The **Ordnance Survey** has made its vector-based Digital Data System available to the public in the 6 UK depository libraries. This is the data they print their maps from, and the libraries will receive the entire data for the UK every year. Data from 1999 to 2001 is currently available, 180 GB! This means increased temporal accuracy for tracing changes. Due to copyright/commercial restrictions, security of the data is important, and it can only be accessed on specific terminals in the libraries. Printouts are available per paper map copyright restrictions, and a declaration must be signed promising not to use them for commercial purposes.

Due to new privacy legislation, the highly useful **Victorian Country Fire Authority (CFA) directories** will no longer be available for public sale. The 12 or so spiral-bound directories with up to date 1:100,000 mapping (and 1:25,000 town plans) for each CFA region featured the names of property owners indexed to their houses/buildings depicted on the maps. Such information is now deemed *verboden* under current privacy legislation, so the directories will now only be issued to CFA crews, and no longer sold (although shops may quit their current stock). It has since been rumoured that the CFA is looking at making a revised product that meets privacy requirements available to the public in the future...

The NZ Map Society's latest newsletter (Datum, #18, April 2003), followed up rumours of the demise of paper **1:50,000 topographic mapping of NZ**. Land Information NZ (LINZ) says there will be an online product available: <http://www.nztopoonline.linz.govt.nz/>, but that users will be able to still obtain maps from a distributor if they wish not to print one off themselves. The NZMS is following up this issue. It appears that current NZMS260 (50k) and 262 (250k) paper maps will no longer be printed after 30 June 2005. Collect your set now!

MAPS AND MAP PRODUCTS FOR SALE

We have fewer than 10 **AMC t-shirts** left at \$15 (\$20 overseas) inc postage. 100% white cotton with the AMC logo in blue, 12cm wide, over the left breast. Contact John Cain j.cain@unimelb.edu.au to see if your size is still available.

The **Survey of India's** map sales office can be contacted by email: soiwzo@jp1.dot.net.in

The **Malaysian Dept of Surveying and Mapping (JUPEM)** now has about 140 unrestricted 50k topos at M\$10 each. http://www.jupem.gov.my/duct_f1.htm Contact JUPEM at: mapline@jupem.gov.my or contact: Chan Keat Lim, Mapping Services Section, Mapping Division, Department of Survey and Mapping Malaysia, 3rd Floor Bangunan Ukur, Jalan Semarak, 50578 Kuala Lumpur, Malaysia Ph: 603 2617 0613 Fx: 603 2697 0140 email: klchan@jupem.gov.my

The **NSW Dept of Lands map sales office** in Bridge St, Sydney sells flat or folded colour facsimilie copies of Arrowsmith's 1834 map "Map of the Discoveries in Australia", for only \$2 each! The map covers Brisbane to Eyre Peninsula, with an inset of SW WA, and a locator map of Australasia. This facsimile was originally printed in July 1979 by NSW Central Mapping authority.

They also give away free, facsimiles of "A map of New South Wales from the best authorities and from the latest discoveries. 1825", published March 1825 by J.Souter, St Paul's Churchyard, London. The facsimile is dated Aug 1982, by the CMA, and it comes on a light brown parchment-like paper.

One-acre lots on the moon for sale at US\$2.49 each, besides real estate on Mars, Venus and Jupiter's volcanic moon Io. A map of sites for sale: http://www.moonshop.com/ms/Soldmap_E.html Another lunar land sale is at <http://www.planetaryinvestments.com/> Sign up as an agent and get 30% commission on sales. They also link to a US military **lunar image browser** <http://www.cmf.nrl.navy.mil/clementine/clib/>

A new **Diamond map of Australia**, was mentioned in AUSGEO News #68, for Dec 2002 (the Geoscience Australia magazine). At 1:5m, it uses a magnetic anomaly map as a base to show locations of diamond deposits and mines. Australia produces 22% of the world's diamonds by weight, but only 4% by value as most are industrial quality only. The map is available in paper for \$55 inc GST (\$77 laminated) email sales@ga.gov.au or download for free (4.5Mb pdf) www.ga.gov.au/rural/projects/NAP_results_products.jsp [the URL in AUSGEO News is WRONG!]

The Railfan Shop, 40 Market St, Melbourne sells full-size b/w xeroxes of old railway maps, \$5.95ea.

"*Railway map of Victoria*", July 1940, showing sidings, mileages, and a station index listing facilities (cranes, turntables, triangles, depots, workshops etc). Insets of Melbourne and Ballarat. 80x65cm.

"*Railway map of Victoria showing passenger mileages*", 1939, with grid index of stations. Again, insets of Melb and Ballarat. 70x60cm.

[These two maps are both different from the A3 1930s reproduction facsimile Victoria rail map, in black and red, that sells for \$1.10]

"*New South Wales Railways Diagram Map*", 1964, insets of Newcastle, Sydney district and Sydney metro. Station index, mileages, 85x105cm.

Information Victoria (356 Collins St, Melbourne) has the following interesting maps & book for sale:

"*Melbourne Central Business District*". 1999, Cartographics International, 61 Eglinton St, Moonee Ponds 3039. A cadastral map of the CBD colour coded by building type and size, with owners name. Similar to those produced by Colliers Jardine for various Australian/NZ cities. \$16.45

"*Melbourne at the new Millenium*", a natural-colour Landsat 7 image, compiled from images dated 28 Nov and 6 Dec 1999. Scale 1:230,000. Meridian Productions, PO Box 8041, East Brighton 3187. \$27.25. On glossy poster paper.

"*Sassafras/Zulu Diggings, county of Benambra, Parish of Malkara, Northern Gippsland, Northeast Victoria*", a facsimile(?) b/w hand drawn map. Dyer & Murphy Historical Map Series (c.1868-98), 50 Begonia St, Box Hill South, Vic 3128, 1997. Scale 2.5":1mile. ISBN 1876286016. A limited, numbered edition of 500. \$9.85

"*Melbourne's Metropolitan Railways 1854-1997*", large poster depicting all metro rail lines and stations, with details of name changes, opening and closing dates etc. This map is also available from The Met shop at the Melbourne Town Hall, and the Railfan Bookshop (see above). \$16.50

"*History of Melbourne's Tramways 1885-1996*", a similar map to the above, showing past and present tramlines, opening/closing dates etc. Available as above. \$13.20.

"*Surveying for Land Settlement in Victoria 1836-1960*", K L Chappel, Office of the surveyor General OF Victoria, 1996. A publication of Chappel's 1966 manuscript, together with appendices on the surveying of the NSW/Vic and SA/Vic boundaries. Several colour foldout map extracts illustrate this A4 paperback. \$27.50

The **Library of Congress** has reproduction historic maps for sale. One is the Lewis and Clark map of 1814 next to a modern computer generated map of the same area.

<http://rockyweb.cr.usgs.gov/historicmaps/historicmapsfromlca.html>

USGS has also reproduced some of its historic maps <http://www.nima.mil/hms/> including Lewis & Clark 1814, Antietam 1862, Armistice Day 1918, Iwo Jima 1945, Normandy air Campaign 1944, Philippines 1944, D-Day 1944. Stock Numbers: Lewis & Clark #114886, Antietam #114662, Armistice Day #114664, Iwo Jima #114663, Normandy Air Campaign #114887, Philippines #114888, D-Day #114665. Each poster is US\$10, & approximately 60x90cm

Ordering info for both LC and USGS maps is at: <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs15499.html>

NIMA sells **Iraqi city maps**: Tikrit, Al Basrah (Basra), Karkuk, & Al Mawsil (Mosul). Stock #'s: Tikrit #114891, Al Basrah #114944, Al Mawsil #114943, and Karkuk #114942. Each map is US\$15.00 Tikrit - 1:14,500 & 49"x33", Al Basrah - 1:30,000 & 50"x30", Karkuk - 1:15,000 & 44"x34", Al Mawsil - 1:40,000 & 34"x37". The maps are available through U.S. Earth Science Info Center (ESIC) <http://mac.usgs.gov/mac/nimamaps/index.html>

MAP HUMOUR

The CMA used to print topo maps in six colours. A PSB official (a former CMA cartographer) was trying to encourage us to print in four colours - a tricky registration problem if you want to print a thin brown line using three plates: red, yellow and blue. So he arranged for six of us to travel from Bathurst to Sydney to attend a technical college lecture entitled "The Four Colour Theorem."

The junior lecturer was amazed to see half a dozen senior officers drive 200km to attend his talk. We were equally amazed when his talk turned out to be a mathematical proof that any number of countries in an atlas (or pieces in a design) can be depicted using not more than four colours without two contiguous countries (or pieces) being depicted in the same colour!

-Frank Urban

MAPS IN THE NEWS

<http://www.amazonteam.org/actnew/newscientist.html>

The word Tumucumaque [New Scientist](#) vol 177 issue 2382 - 15 February 2003, page 45

BRAZILIAN president Fernando Henrique Cardoso created a stir last August when he announced the creation of Tumucumaque Mountains National Park, forged out of the Amazon rainforest in Amapá State in north-east Brazil.

The reserve, created jointly by government and environmental groups such as WWF and Conservation International, became the world's largest tropical national park. It took the title easily, covering 39,000 kilometres – an area larger than Belgium and more than 6 per cent bigger than the former number one, Salonga National Park in Africa. Brazil's government has promised to protect 10 per cent of the Amazon's forests, and Tumucumaque alone accounts for 1 per cent of the total.

Now the park has created a new wave of interest, after the Amazon Conservation Team unveiled the Tumucumaque map at the Brazilian embassy in Washington DC last month.

Why all the fuss about a map – with such a big park, surely you'd need one? Yes, but this map is special. For starters, it could transform prospects for conserving rainforests worldwide. What's more, the intriguing way it was made brings together indigenous societies, government, environment groups - and state-of-the-art telecommunications technology.

Cartographers trained members of the rainforest tribes living locally – the Tirió, Kaxuyana, Wayana and Apalai – to use Global Positioning System handsets to collect data. Using this, aerial photos and the tribes' knowledge of the area, the team worked for a year to compile the most detailed indigenous map ever of an Amazonian region.

So what does it look like? The final product includes important features such as the headwaters of several major rivers, the location of game species, fish spawning grounds and villages. Interestingly, the Tumucumaque map also reflects indigenous ways of thinking by working in six "dimensions": latitude, longitude, altitude, time (ancient village and battle sites), sacred sites, and mythological sites, where invisible creatures make the area a no-go zone. Not featured - sensibly from the tribes' viewpoint - are locations of coveted medicinal plants.

Before the map there were only maps based on satellite photos showing little more than rivers and mountains. Now the region's ecology should be a lot easier to protect since the information is local. And how will such maps help the Amazon's unique species? Well, those in serious decline such as the jaguar, giant anteater, harpy eagle and black spider monkey stand a better chance of survival. And there's plenty more to discover. Hundreds of thousands of species could lurk in the dense rainforest.

You may even get to see some of the magnificence - eventually. But although eco-Reals are an attractive prospect for Brazil, right now the scientists and indigenous peoples take priority.

OBITUARY

Brig. (retd) Donald Macdonald

1910 – 1923

Brigadier Donald Macdonald, a former commandant of the Army Survey Corps, who has died in Sydney, aged 92, made a significant contribution to the mapping of Australia. In the course of a distinguished career spanning almost 50 years, he reached the highest level in two areas of his profession - civil and military surveying - as well as gaining international recognition.

As the director of military survey (1960-67), he ushered in what the Survey Corps historian Chris Coulthard-Clark described as seven years of "real co-operation between Army Survey and National Mapping". This period saw the corps undertake varied and extensive mapping operations covering the more remote areas of Australia and sectors of Papua New Guinea. It also resulted in the continent being mapped at 1:250,000 scale - the first time that Australia, as a whole, had been topographically mapped with an accurate series. In 1965 Macdonald was responsible for the introduction of the Topographic Survey Troop as an integral part of an infantry division. The worth of forming this unit was soon confirmed with its outstanding performance during the Vietnam War.

Born in the Gippsland town of Traralgon in Victoria, Macdonald received his secondary education at St Patrick's College, Sale. His long career in surveying began when he became an articled student in Melbourne. He qualified for his surveyor's licence in 1931, but found the going tough in general surveying as the Depression began to bite. A slot surveying state forests for the Victorian Forestry Department helped him through. However, when an opportunity came to join the Survey Corps and be involved in the mapping of Australia, he successfully applied. He went into the corps in 1936 as a warrant officer, thus beginning his close association with geodetic and topographical surveying.

Macdonald was commissioned in 1939, and was posted in 1940 to the 2/1st Field Survey Company, Royal Australian Engineers, AIF. After gaining experience in the application of photogrammetry to mapping, he was appointed to raise and command, with the rank of major, 4th Field Survey Company in Western Australia. Later, he was posted as commanding officer of 3rd Field Survey Company, Victoria, before his first staff appointment as assistant director of survey at 1st Australian Army Headquarters in Toowoomba.

From January 1944 to the end of World War II he was assistant mapping officer to the chief engineer, General Hugh Casey, at General MacArthur's South-West Pacific Area Headquarters. He moved with the headquarters from Brisbane to Hollandia (in then Dutch New Guinea) and then to Manila, where he finished the war. For his service with the US forces, he was mentioned in dispatches and awarded the US Medal of Freedom with Bronze Palm.

In September 1945, he was recalled to Australian Army Headquarters to tackle the many problems thrown up with the end of hostilities - demobilisation and the re-establishment of the Survey Corps on a peacetime footing. Back with the corps, he was again engaged in mapping where he was active in establishing standards and specifications. But changes were looming that would see the major responsibility for mapping Australia pass from the Army into civilian hands. A central authority - the National Mapping Council - was created to co-ordinate state and federal activities. This led in 1947 to the National Mapping Section being formed in the Department of the Interior with the surveyor-general as director of National Mapping. To ease the burden of the surveyor-general's duties, it was decided to appoint an executive officer with the title of deputy director of National Mapping. In 1951, the section became the Division of National Mapping within the Department of National Development.

The way all this was handled was to sour relations for years between the Survey Corps and the Commonwealth's civilian mapping organisations. Faced with the inevitability of what was to happen, the then director of Military Survey, Colonel (later Brigadier) Lawrence FitzGerald, believed that the deputy's job in the new mapping section should go to a serviceman. He wanted the post to go to his deputy, Macdonald, but it went unexpectedly to an ex-corps member, Major Bruce Lambert, later to become director of National Mapping in his own right. Compensation came for Macdonald when, on FitzGerald's retirement, he was promoted to command the corps. Under him the corps began to strike out in new directions and make greater use of new technology. After retiring from military service in 1967, Macdonald remained active in the profession and was involved in the large-scale mapping of Canberra as a surveyor with the Department of the Interior until finally retiring in 1975.

Side-by-side with his military career, Macdonald took an active part in the Institution of Surveyors at state and federal level as president of two divisions (Victoria and Canberra) and of the federal body. For his varied services to the profession, he was awarded the Medal of the Institution of Surveyors, Australia, in 1972. He was made a member of the Order of Australia (AM) in 1978.

In the international sphere of mapping, he was widely known and respected as head of the Australian delegation to SEATO cartographic meetings and as the Australian delegate at conferences for British Commonwealth survey officers in Britain. He continued his association with the Survey Corps as Colonel Commandant from 1967 to 1972, and his membership of Survey Corps unit associations.

A genial, warm-hearted man, he enjoyed easy working relations with those under his command. He set high standards for himself in carrying out his duties and expected them in others. Outside his work, he was active in lay organisations of the Catholic Church.

Two daughters, Margaret and Anne, a son, Peter, and their families survive him. His wife, Lucy, predeceased him.

John Farquharson

OBITUARY

Dr. J. Stuart Duncan

21-6-1922 – 24-4-2003

Dr. Stuart Duncan often claimed to be a ‘non-adjectival geographer’, a challenging position in an increasingly fragmented and specialised academic world. He cherished the breadth and synthesizing nature of a discipline to which he was to contribute as a fine teacher and researcher in Australasia and Great Britain for over 40 years. His great intellectual passions were in the areas of cartography, and in regional, historical and agricultural geography. He always maintained a keen interest in the expanding frontiers of his discipline. Nor was he concerned with methodological doubts about whether his work ‘constituted history or geography’. To his students, of whom I was privileged to be one, Stuart always advised that landscape interpretation lay at the heart of geography and that this required a sound appreciation of how the physical and human environments shaped the nature of particular places. This approach was to be integrated by maps as indispensable tools of spatial analysis and communication. Stuart agreed with Carl Sauer’s invocation that there was no substitute for field work and ‘getting a little dirt on your boots’. Moreover, coming closer to nature helped to develop what his mentor, New Zealand’s first Professor of Geography George Jobberns, called ‘an eye for country’.

John Stuart Duncan was born into a farming family in Timaru, New Zealand on 21 June 1922. Educated at Timaru Boys High School, Stuart won a government scholarship in history to enter the B.A. at Canterbury University College, Christchurch 1940-42 where he chose to major in geography. The Second World War intervened and he enlisted in 26 NZ Infantry Battalion, 2nd New Zealand Expeditionary Force. For two years, Stuart’s Division spearheaded the British 8th Army’s successful campaign against the Germans. The bitter fighting moved through the ‘appalling terrain’ of the Italian Alps in the winter of 1943-44. During the Allied push against the Gustav Line, the New Zealanders were used to break through in the bloody Second Battle of Cassino. The Polish Lieutenant-General Anders later wrote of the Kiwis that ‘your incomparable fighting qualities have been still more evidenced by the speed of your advance against the toughest troops which the enemy could muster, and these qualities have aroused a feeling of respect, admiration, and comradeship which will live in our memories throughout the years of peace.’ Churchill put it more bluntly: ‘The New Zealand troops were in at the death, and have fought with tremendous tenacity throughout.’ The Italian Campaign honed Stuart’s mapping skills and his ‘eye for country’. He later recalled radioing coordinates with enough precision to focus artillery barrages on one enemy-occupied end of a long Italian farmhouse while the allies huddled safely at the other end! It also evinced Stuart’s lifelong love of poetry – he would manage the boredom and sheer terror while huddled in a fox-hole by reciting from memory all 32 verses of Gray’s ‘Elegy written in a country Churchyard’. How apt for the many fallen were the lines: ‘For them no more the blazing hearth shall burn, Or busy housewife ply her evening care: No children run to lisp their sire’s return, Or climb his knees the envied kiss to share.’

After six years of military service in Italy and New Zealand, Stuart returned to complete his M.A. with first class honours in 1946 with a thesis on the ‘Distribution of Population in North Canterbury’. In that year he won a Post-Graduate Scholarship in Arts. Between 1946 and 1948, Stuart was one of the three student demonstrators teaching geography under Professor George Jobberns and one other lecturer (G. H. Lawton) at the rapidly expanding Geography Department at the University of New Zealand. In 1949, Stuart commenced as a research assistant under Dr J.C. Beaglehole on the Historical Atlas of New Zealand. In the same year he began his PhD supervised by London University’s Professor R. Ogilvie Buchanan. His thesis, entitled ‘The Evolution of Settlement in New Zealand’, combined his love of history, geography and mapping and was completed in 1960. Between 1951 and 1962 Stuart taught as an Assistant Lecturer and then Lecturer at the Department of Geography at Manchester University where he had moved from Canterbury with his young botanist wife Betty. At Manchester, Stuart taught the Geography of Australia and New Zealand (the only honours-level course on Australasia in Britain at the time), along with agricultural geography, and an introductory course. These gave him scope to expand his interests in biogeography, geomorphology and climatology. His Mancunian students valued his gentle nature, good humour and genuine interest in their welfare, and he soon became known as ‘Daddy Duncan’. Throughout the 1950s, Stuart gave public lectures on social and political problems in the Commonwealth and was appointed to the British Association for the Advancement of Science. He later recalled with pride the triumphal Coronation Day fifty years ago when between the bunting and hoopla of the street parties, the newspaper banners trumpeted the news of compatriot Edmund Hillary’s conquest – ‘All this . . . and Everest!’ The Duncan’s spent their holidays

touring Great Britain and the continent, camping out with their three young daughters, Maggie, Jay and Kate. In 1960 the family came to Australia for a year when Stuart was a Visiting Lecturer in Geography at the University of New England, Armidale. There he added population and political geography to his regional courses on Australia and New Zealand, and pursued a research interest in the sugar cane industry.

Fortuitously, in 1962, Stuart was asked by Professor Basil Johnson, whom he had known for a number of years, to apply for a lectureship in Geography at the newly formed Monash University in Melbourne where Johnson was Chair. The links between Manchester and Monash were strengthened by Manchester's Chair of Engineering, Louis Matheson, who was appointed Monash's first Vice Chancellor, and by the Duncan's close friends Bruce and Alison Morton. The lure of Monash was enlivened by the Duncan ancestry – two of Stuart's grandfathers were Victorian-born and his great-grandfather, George Joyce, landed in Melbourne in 1840 and with Alfred Joyce became a pioneer grazier at Plaistow, near Newstead.

Stuart was employed as a Lecturer and then Senior Lecturer in Geography at Monash between 1963 and 1987. During that period, Stuart became active in a wide range of administrative responsibilities including Honours Coordinator, Acting Chair of Geography and Sub-Dean of the Arts Faculty. He was a valued member of more than ten learned and professional societies on both sides of the Tasman, as well as a leader in the professional and curriculum development of Victorian secondary school geography. Stuart was a generous and accomplished research supervisor, and an incisive and formidable reviewer. In the 1960s and 1970s, the Departmental family comprised many British and New Zealander expatriates like the Powells, Rimmers, Mercers, Mahers and Whitelaws. His colleagues and students remember with great fondness the Duncan's hospitality and leadership in the progress of the young Department. Stuart taught the Geography of Australia and New Zealand, using the remarkable geographical contrasts between the two countries to great effect, and later lectured on the Geography of Victoria. As always, he encouraged his students to move from the maproom and lecture theatre out into the field. His meticulous editorship of the *Atlas of Victoria*, a project suggested by him to the Victorian Government in 1977 and published in 1982, is widely regarded as his finest academic achievement, but that would have to vie with the love of geography he engendered in generations of students. Not surprisingly, for their long-service-leave trip of a lifetime, the Duncans and the Mortons trekked through the spectacular foothills of the Himalaya. In his extremely busy 'retirement', Stuart took up a position teaching Geography at the newly formed Bond University in Queensland, and assisted Betty and Golda Isaac in the preparation of their *Ferns and Allied Plants of Victoria, Tasmania and South Australia* – Stuart assisting with the mapping and helping to coordinate the publication process. He also renewed his lifelong scholarly interest in exploration – Hamilton Hume and William Hovell, Thomas Mitchell, John Batman and James Cook in particular. He wrote, lectured, led field trips and organized in a wide range of learned societies including the Captain Cook Society, the Royal Victorian Historical Society and the Australian Map Circle (where he was a member for twenty years, served tirelessly on the Executive Committee and was President for four years, 1989-1992).

Professor Murray McCaskill once wrote that Stuart was 'ruthless in exposing weakness in logical argument and prose style', and that he 'communicated a breadth of outlook on his subject that is valuable' despite the greater research rewards from specialisation. Manchester Professor of Geography P.R. Crowe observed that Stuart was 'a man of wide culture and lively interests, gentlemanly, friendly and with a keen sense of humour'. The annual J.S. Duncan Prize for the best Geography Honours thesis was inaugurated at Monash to mark his achievements, and even while his health was declining he would assiduously read, assess and summarise each of the prize-winning works before he made the public presentation. Stuart brought forth humanity, humility and a great passion for all things geographical. He will be sadly missed.

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- Stephen Legg, Monash University