

GEOGRAPHY BULLETIN



The
Geography Teachers' Association
of New South Wales Inc.

Volume 49 No 2 2017

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GEOGRAPHY BULLETIN

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ISSN 0156-9236



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Front cover: Landscape and landforms NZ

Back cover: Riverine landscapes and tourism NZ

Image source: L. Chaffer

The Geography Bulletin is a quarterly journal of The Geography Teachers' Association of New South Wales. The 'Bulletin' embraces those natural and human phenomena which fashion the character of the Earth's surface. In addition to this it sees Geography as incorporating 'issues' which confront the discipline and its students. The Geography Bulletin is designed to serve teachers and students of Geography. The journal has a specific role in providing material to help meet the requirements of the Geography syllabuses. As an evolving journal the Geography Bulletin attempts to satisfy the requirements of a broad readership and in so doing improve its service to teachers. Those individuals wishing to contribute to the publication are directed to the 'Advice to contributors' inside the back cover. Articles are submitted to two referees. Any decisions as to the applicability to secondary and/or tertiary education are made by the referees. Authors, it is suggested, should direct articles according to editorial policy.

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STEM
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Lorraine Chaffer, Editor

EDITORIAL

Many thanks to those who contributed articles for this edition.

- ***A river is a person*** by Dr Susan Bliss has contemporary relevance for Stage 4 Landscapes and Landforms and Stage 5 Environmental Change & Management.
- ***Where is the "G" in STEM?*** by Louise Swanson examines links between STEM subjects and Geography using examples from NSW schools.
- ***In Place and Liveability: Some teaching ideas*** I have provided some different approaches to introducing this interesting topic in Stage 4.
- For primary teachers ***Discover, Share, Create*** examines place based outdoor learning at the Blue Mountains Botanical Gardens Mount Tomah.
- ***Visual Literacy*** by Dr Susan Bliss highlights the importance of visual resources to geographical inquiry.

Historical reflections

One of my self-appointed roles as president of GTANSW for 2017 was to record information on the early history of GTANSW.

Using documents loaned to me by renowned Geographer Dr. Don Biddle I am including two articles that examine the formation of GTANSW and a history of Geography teaching in NSW. ***Reflections on Geography in Schools*** was written by Dr. Biddle. This was Don's address to the Awards ceremony for the Geography Fieldwork Awards in 2001 and is a timely piece considering the current implementation of the new Geography Syllabus K–10 in 2017 and the recent Arthur Phillip Fieldwork Awards Ceremony at the GTA Annual Conference. ***Belated 80th Birthday GTANSW*** gives some insight into the formation and changing roles of GTANSW over the past 80 years.

Annual Conference

The GTANSW Annual Conference was held at Sydney Olympic Park on March 9th and 10th, 2017.

A big thank you goes to those involved in organisation and administration; the presentation of keynote addresses, masterclasses and workshops and the display of Geography related products and services. The success of the conference can be attributed to many people working together to promote the teaching of Geography in schools. Special thanks must go to the hard working GTANSW Councillors making up the conference committee – Sharon McLean, Grace Larobina, John Lewis, Catherine Donnelly, Milton Brown and Paul Alger, without whom I could not have coordinated a program that contained three keynote addresses, eight masterclasses, 49 workshops, a 2016 HSC review event and an Awards Ceremony. Bernadette Motulalo and Jill Sillar from the Professional Teachers' Council also deserve special credit for their administration of the event and preparation of support materials such as award certificates, flyers and programs.



Luke Peel and Dr. John Broughton presenting at the Mulloon Institute workshop on landscape rehydration and sustainable agriculture. Photos L Chaffer





Ready for a big day at the GTANSW 2017 Annual Conference

Conference presentations online

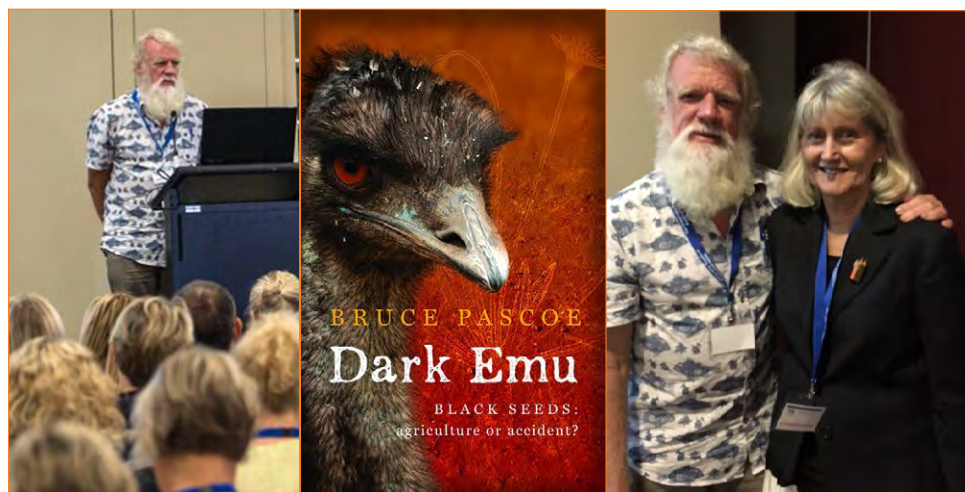
Presentations from the conference are available to all GTANSW members through links on the GTANSW website homepage.

Video recordings of the eight masterclasses, as well as access to other conference presentations, are available to conference delegates via a code sent by email.

Conference sponsorship

This year GTANSW was fortunate to gain sponsorship from UrbanGrowth NSW, Sydney Olympic Park, The Murray Darling Basin Authority and Magabala books. This sponsorship covered the costs of releasing teachers from schools to present workshops and enabled GTANSW to bring presenters from interstate and increase the number of workshops and exhibitors at the conference.

Magabala Books sponsorship facilitated the attendance of author Bruce Pascoe who presented a workshop on his research findings into Aboriginal pre-colonial landuse. Bruce made himself available in a "Meet the author" session during morning tea.



GTANSW President Lorraine Chaffer with Dark Emu author Bruce Pascoe.. Photo L Chaffer

EDITORIAL



**Urban
Growth
NSW**

SydneyOlympicPark 



Australian Government



Sponsorship also supported the attendance of five Geography teachers by covering registration, travel and accommodation expenses through a bursary and scholarship application process. Thank you **UrbanGrowth NSW** for providing a bursary to three primary teachers from Sydney – Rebecca Pierpoint from Waverley Public School, Vanessa Simpson from the Sydney Japanese School and Amber Fuller from Harbord Public School.

Fiona Nicholson from Karabar Distance Education Centre and Averil Keen from Dubbo School of Distance Education attended the conference with the support of the **Murray Darling Basin Scholarship** for teachers within the Murray Darling Basin.

GTANSW also provided two bursaries to individual GTA members. Tiffeny Cox from East Lismore and Betty Steele-Smith from Cundletown were the successful applicants.

All bursary and scholarship winners were most grateful for the opportunity to attend the 2017 Conference to enhance their teaching of the new Geography Syllabus K–10. We look forward to reading their feedback in the coming editions of the bulletin.



Belinda Thompson, Schools and TAFE Manager UrbanGrowth NSW with bursary winners Rebecca Pierpoint, Vanessa Simpson and Amber Fuller. Photo B. Thompson:

Awards Ceremonies

This year four awards ceremonies were held in one event during the conference. Many thanks go to Grace Larobina for her organisation.

- 2016 HSC Top Achievers Awards for students and their teachers
- Arthur Philip Awards for students
- Life Membership Awards for outstanding contributions to GTANSW Council.
- GTANSW Geoff Conolly Award for contributions to the Geography Bulletin

The program and citations for these awards can be found within this Bulletin.

COMING EVENTS

GTANSW has several events planned for 2017

These include:

- Two WEBINARS per term – following two successful webinars held in Term 1. Thanks to Sharon McLean for her work on this initiative.
- HSC Student lectures in June for Wollongong, Sydney and Newcastle. These events will be organised by Catherine Donnelly and Susan Caldis.

Dates to be confirmed.

- Skills workshops later in the year organised by Dr. Grant Kleeman
- HSC Conference for teachers in term 4.
- Regional conferences
- Arthur Phillip Fieldwork Competition

Lorraine Chaffer

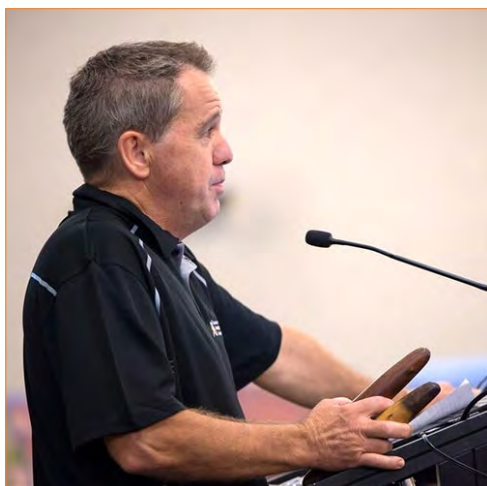
GTANSW President & Editor



UrbanGrowth NSW's Sharyn Lindtner



Lorraine Chaffer welcoming delegates to the conference opening address



Dave Lardner from AECG gives the Acknowledgement of Country



Sharon McLean opening the awards ceremony

EDITORIAL

CONFERENCE FEEDBACK

Tiffany Cox, GTANSW Bursary Winner

I was lucky enough to gain a bursary to attend the GTA NSW conference 2017 that was held at the Novotel Olympic Park. As I entered the building I felt sustainable professional learning was about to happen. The Novotel promoted a sustainable future: a fantastic venue for a Geography teachers conference.

As I entered I could see stalls of free resources being given out by the many exhibitors and it was like a small child entering a lolly shop for the first time...so many people to talk to... so many free and useful items and resources to make teaching Geography even more exciting.

I received water testing cups from Sydney Water, badges from Cool Australia, wooden USB sticks from Sydney Olympic Park, A Geography Skills Unlocked book from AGTA, and posters and stickers from the Murray Darling Basin Authority, to name a few. All I know is that my hands were full before the day began and with good stuff too!

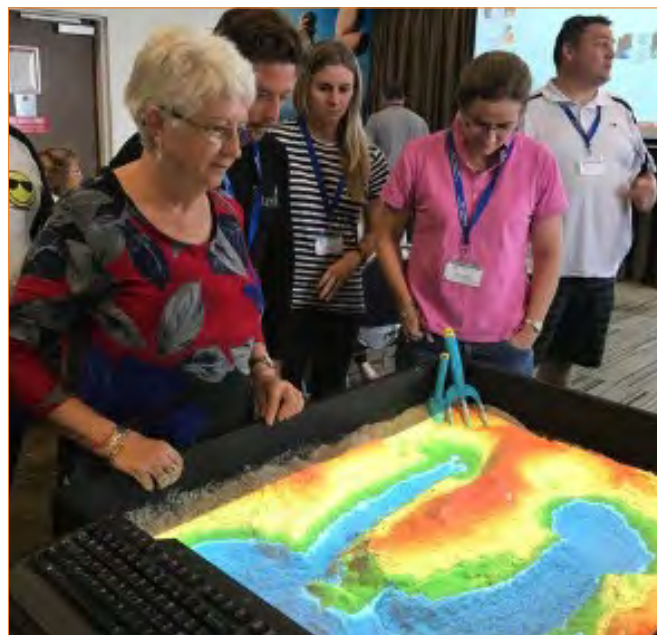
The key note from Dr Chris Sarra was inspiring, even though it did contain a lot of maroon coloured cane toads ... a bit of humour from Chris, a Queenslander. However, putting that aside his most inspiring message was this, "Honour the humanity in people and Let's get connected to 500,000 year history not just a two hundred year one!" Amazingly powerful!

Urban Growth presented the importance of Urban Renewal and Existing Urban Landscapes including three projects: The Bays Precinct, CBD and Western Sydney, facts sheet being available from Urban Growth. Cool

Australia then went on to talk about the resources they offer and emphasised the three P's – Planet, People, Profit – a framework for discussing sustainability



Signs promoting sustainability at Novotel, Sydney Olympic Park.

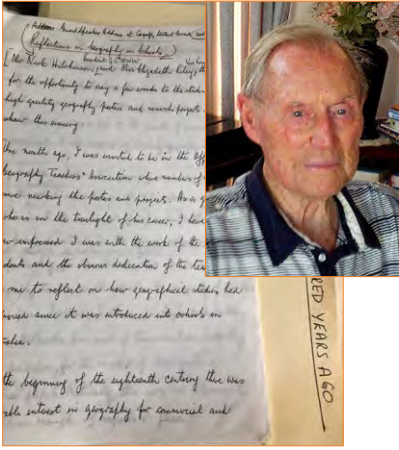


Teachers enthralled by the AR Sandbox created by Di Twomey and her team at Narara Valley High School and presented in two workshops as well as throughout the day.

We then broke into individual workshops: The first I attended was "Living Oceans: Action for Sustainability and liveability", an NGO in Sydney with a focus on plastic in the ocean and whale research. The second was on "Cocoa- chocolate supply chains and networks" with a recommendation to view the "Dark side of chocolate" documentary, leading me into the Formative Assessment in Geography workshop. I loved this workshop, learning about "Hinge Questions" and "Exit tickets: checking for understanding" – look this up on you tube for further information. I then attended the Masterclass on Liveability during which we looked at "Million Dollar Sales" – using the internet to show where \$1000000 houses sell geographically. I wish I owned one of these. Day one was completed with the HSC Review, a breakdown of the 2016 HSC Examination where the main message was to teach students to look and understand the directive terms. Day two consisted of the Dark Emu book talk by Bruce Pascoe showing evidence of Aboriginal agriculture, the Augmented Reality Sandbox, (which we have begun to make) and then the Environmental Change and Management and Human Wellbeing Masterclasses.

At the conclusion of the conference my head was full of ideas and my hands were full of resources. Upon returning to my school I have decided that all Geography teachers should attend this conference and be as inspired as I am.

Thank you GTANSW for renewing my passion for Geography teaching!



ON GEOGRAPHY IN SCHOOLS

Dr Don Biddle 2001

Dr Don Biddle's address at the Geography Fieldwork Awards ceremony 2001

Transcribed from Don's hand written speech by Lorraine Chaffer.

Mr. Nick Hutchinson, President of GTANSW and Mrs Elizabeth Riley, Vice President, thank you for the opportunity to say a few words to the students, whose high-quality Geography posters and research projects are on show this evening.

One month ago, I was invited to be in the office of the Geography Teachers Association where members of Council were marking the projects and posters. As a Geographer, who is in the twilight of his career, I have to say how impressed I was with the work of the Geography students and the obvious dedication of the teachers. It led me to reflect on how geographical studies had improved since it was introduced into schools in Australia.

At the beginning of the 18th Century there was considerable interest in Geography for commercial and political reasons. It was a period of exploration and fact finding, with an emphasis on resources, and trade, for the newly developing industrialised countries of Europe. These explorations provided the descriptions of places, required for scientific analyses, and led to the growth of geographical societies, and to the support of teaching Geography in schools.

My research indicated that Geography was an important subject in the Australian school curriculum in the 1830's, because of its relevance to the commercial life of a new settlement, and its practical interest for the colonial school students. That is, the pupils who had been born in Australia. Unfortunately for the students, there were no qualified Geography teachers in the schools. The majority of teachers came from Ireland, Scotland and England, and they used textbooks from each of those countries, where they were published for the benefit of their particular countries' students. Naturally, there were no references to Australian examples of regions or places.

An attempt was made to have textbooks, containing information about Australia, published for teachers. However, these textbooks used a gazetteer and question

– answer approach, so were not very inspiring for either the teacher or the pupils. For example, the first few pages consisted of definitions to be memorized, such as peninsula, cape, volcano etc, followed by questions and answers, such as:

Question: *What is the principal mountain range of Australia*

Answer: *The East Coast Range*

Question: *What is the character of the rivers on the eastern side*

Answer: *They are better sustained and more rapid in their courses than those rising on the western or interior side.*

This textbook was prepared in 1850, at the request of the Education Department in New South Wales. A less interesting textbook was published in 1877 by a school inspector in Victoria. I have looked at both publications and they were dreadful! Neither of these authors were qualified Geographers.

At this time a short course was introduced for training teachers who had gained experience through the pupil – teacher system. The principal method for teaching Geography was book learning, and assessment was concerned with memorisation of facts provided by the teacher. The Geography textbooks were published in England, and Australian students were disadvantaged when it came to studies of climate, vegetation, and rural industries, unless the teacher prepared notes and used fieldwork to enable students to relate to the real world, to what they learned from books. Henry Lawson referred to this problem in his poem about The Old Bark School, in 1897.

"It was built of bark and poles, and the floor was full of holes

Where each leak in rainy weather made a pool;

And the walls were mostly cracks lined with calico and sacks

There was little need for windows in the school.

Reflections on Geography in schools

*And we learnt the world in scraps from some ancient dingy maps
Long discarded by the public schools in town;
And as nearly every book dated back to Captain Cook
Our Geography was somewhat upside down.
It was in the book and, so well, at that we'd let it go,
For we never would believe that print could lie;
And we learnt pretty soon that when we came out at noon
The sun was in the south part of the sky."*

The first school syllabus for high schools in NSW was prepared by the lecturers of Sydney Teachers College, for the Director of Education, in 1911. Even at this stage, the majority of the textbooks were published in England with few references to Australia. In the preface of the syllabus however, the Director of Education drew the attention of this problem to the teachers, who were instructed to overcome the problem by preparing material themselves.

Soon after 1911, Geography and Geology textbooks were produced by Australian universities for teachers. Again, the main problem, still, was that there were no qualified Geographers in schools who had been educated in Australia. The reason was that the first Geography Department did not open until 1921 with Associate Professor Griffith Taylor as the Head of Department. Prior to this, here had been a short course in Economic Geography, given by Griffith Taylor, for the Economics Department.

Griffith Taylor became the Chief Examiner in Geographer for the Leaving Certificate Course, and he immediately prepared textbooks to cover the course. This system was continued by Associate Professor MacDonald Holmes, when he replaced Griffith Taylor in 1929. MacDonald Holmes did not agree with Griffith Taylor's philosophy of determinism so he produced a new syllabus, and with a senior lecturer from his department, provided a new textbook for the course. Both professors (Griffith Taylor and MacDonald Holmes) believed that fieldwork was essential, and pupils had to develop skills in reading and interpreting topographic maps and photographs.

Because of the Great Economic Depression in the 1920's, it was not until the 1930's that qualified Geographers entered the

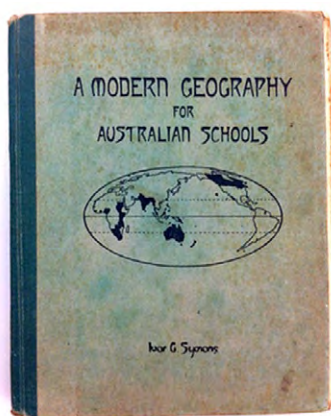


Students outside the Severn River Provisional School, 1897 (State Library Qld)

school system. One of the most outstanding Geography teachers at this time, who gained attention in the media for the consistently high standards achieved by his pupils, year after year, is remembered with the naming of the Brock Rowe Award for the Biophysical Environment Fieldwork Project, to be presented this evening. The Geographical Society and the Geography Teachers Association of NSW, also present a Brock Rowe Award for Excellence in Teaching Geography in Schools, because he was an inspirational teacher, who believed fervently in fieldwork excursions; he was the author of the best textbooks produced in the 1950's, as well as being an active member of the Society and the Association. In Murwillumbah, he is remembered for a story told by a local bushwalker and his friends, who struggled for hours to climb Mount Warning, only to find at the top, ten catholic nuns completing fieldwork projects, with Brock Rowe's guidance.

It was in my last year at secondary school in 1939, before I received tuition from a qualified Geography teacher. I have never forgotten her name, Miss Margaret Bell. She introduced us to the use of atlases, when we were studying correlations between people and their environments in a specific region, and she taught us to read and interpret topographic maps, which we had never seen before. The interest in Geography immediately increased, and the quality of our work took most of the class to "A" and "Honours" levels, at the final Leaving Certificate Examinations.

After the end of WW2, many servicemen, who had served in Canada, Europe, the Mediterranean, Southeast Asia, Southwest Pacific and Japan, entered universities on Commonwealth Reconstruction Training Scholarships, and a large number selected Geography as their major subject. Although many of these entered industry, commerce, town planning and the public service, the remainder decided to become secondary school teachers. By the time of the Wyndham Scheme of Secondary Education was implemented in the 1960's, most secondary schools in NSW had qualified



Reflections on Geography in schools

Geography teachers, who were able to teach one of the most progressive syllabuses in Geography, in the world at that time, based on systems theory. This syllabus was taught with minor modifications for 20 years from 1965 – 1985.

This approach emphasised the linkages among features and places and the integration of process and product rather than fragmentation of physical and human processes in geographical studies. The course could not have been implemented without the large number of Geography teachers, who had completed their university courses in the 1950's, and for their professionalism, in keeping up to date through their membership of the Geographical Society and the Geography Teachers Association.

In 1987, a new syllabus was introduced, which emphasised studies of the Australian environment; with particular reference to the biophysical environment, population and employment, followed by a synthesis of Contemporary Australia in the Preliminary Course in Stage 6. The Higher School Certificate provided a choice between two lobes: Global Environments and Australia's Neighbours lobe. This was a far less restrictive syllabus than the systems course.

The 1987 syllabus was the forerunner to the syllabus in Geography, studied by students today (2001) who are required to develop skills in formulating a plan of inquiry, of selecting, organising, and analysing geographical information from a variety of sources; of using maps, graphs, statistics, photographs and

fieldwork during their investigations; of applying mathematical ideas and techniques in analysing geographical data collected; and of developing the ability to communicate their information and ideas, in writing, or in cartographic and graphic forms.

These skills are developed sequentially over time commencing with reference to the mandatory global and Australian environments in Stages 4 & 5, followed by the Stage 6 preliminary course on Biophysical Interactions, Global Challenges and the Senior Geography Projects you see here today.

Finally, the Stage 6 Higher School Certificate course deals with ecosystems at risk, urban places and people and economic activity.

Students and parents, the level of geographical research communicated by these projects and posters tonight, are the result of the foresight of the formulators of the syllabuses, the authors of the textbooks, the quality and dedication of the teachers, and the conscientious work of the students. I must admit that the students here tonight, have been working at a level in Geography which I did not attain until my first year at university. The Year 10 geography projects on display here would have been marked at Honours level at the matriculation level in 1939; and the posters, which look at problems and solutions, would never have been seen at that age group at school.

Congratulations to all students here, and best wishes for your future success.



Textbooks written by Geographers



Fieldwork studies by organisations such as Sydney Olympic Park and NSW Environmental Education Centres and Zoos.



The resources available to support the teaching of Geography today are a long way from the textbooks of old





Students at the launch of The big plan for The Bays Precinct, Sydney - a primary school teaching resource about the Bays Transformation Plan.

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UrbanGrowth NSW is proud to support the Geography Teachers' Association Annual Conference. Our projects are unique, challenging, and provide once in a lifetime opportunities to deliver world class urban transformation outcomes for Sydney and New South Wales.

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BELATED 80th BIRTHDAY GTANSW

Lorraine Chaffer
President GTANSW

The information in this brief historical record comes from documents belonging to Dr Don Biddle.

Introduction

March 17th 2016 marked 80 years since the beginning of the GTANSW in 1936.

The initial aims of the association were to:

1. Provide an opportunity for discussion of problems occurring out of the teaching of Geography.
2. To stimulate enthusiasm for the teaching of Geography in secondary schools

Following English Schools practice

The inaugural meeting on the 17th March 1936 was given over to the presentation and discussion of a paper, *The Scheme of Study to the Intermediate Standard*. (I believe this paper may have been about a draft Geography syllabus)

The paper asserted that there was a fair measure of agreement with English schools' practice in secondary education.

The first year of geography study was divided into three sections: Preliminary, Transition and Regional Stage.

- Preliminary Stage: Geography vocabulary and basic skills to enable simple map reading. These skills are then applied to a study of the home district as a basis of later regional comparison.
- Transitional Stage: Linking the study of home districts to that of a larger sub-region. Introduction of what constitutes a Geographical Region followed by a study of British regions.
- Regional Stage: Towards the end of the first year, students were introduced to world geography.

The **2nd and 3rd years** were to dedicated to the study of the southern continents, North America and Asia.

4th year was aimed at Europe and

5th year was a dedicated geographical study of the British Isles.



Frank Hurley with Cinematograph, 1915
Source: Wikimedia Commons

Cinematography was a new tool in 1936

The September meeting was devoted to the use of Cinematography in the teaching of geography. The initial barrier of course was the prohibitive cost of the 16mm projector which at the time was anything between 26 to 70 pounds.

The meeting discussed the hire of film, the costs of producing their own films and the possible establishment of a film library with such titles as "Anthracite Coal" and "Growing Cotton". There were some business films that were available as well.

Other activities, apart from monthly meetings, included:

1. A questionnaire distributed amongst schools to collect reliable information about the teaching of Geography in the State.

2. The establishment of a Geographic Library of texts suitable for use in schools.
3. Keeping members informed of current trends in geographical thought and reporting of interesting articles and geographical journals.

Varied venues

The inaugural meeting on 17th March 1936 was convened by Miss Dorothy Yates, a geography teacher at Ascham Girls' High School. The meeting was convened during a vacation course held at Sydney University to assist teachers in the interpretation and implementation of the new syllabus, putting more emphasis on human geography and the widened choice of activities available to study different environments.

In May, the GTA adopted a Constitution who's stated aims were:

1. To stimulate enthusiasm in the teaching of Geography.
2. To provide an opportunity to discuss problems arising from the teaching of geography.
3. Collect and distribute data with regard to the teaching of geography.
4. Stimulate public interest and improve the status of geography in secondary schools.

In the years from 1936 to 1961, the NSW GTA remained a small group of qualified and dedicated geography teachers who taught in secondary metropolitan schools. The meetings were reduced during the war years and aftermath but from 1948 meetings were held 8 times a year. They were held in the Geography Department of Sydney University, but this proved inconvenient, especially during the war. Meetings were moved to

centrally located schools but were more often held in the homes of council members. In the 50's and early 60's, they were moved to the Inspectors' Institute Room in Bridge Street.

45 years since the Geography Bulletin began.

From 1962, the GTA began producing the Geography Bulletin and various teaching resources and by 1980, syllabuses, teaching techniques and materials had changed radically. A new Constitution was adopted reflecting these changes as well as the expanding role of the Association in the development of the Geography Syllabus, the teaching of Geography in schools and the support of teachers in and out of the classroom. It's aims were:

1. To further the study and teaching of Geography.
2. To represent professionally the views of all persons connected to its teaching.
3. Provide a forum for discussion.
4. The support of activities that may assist teachers.
5. Encourage the development of higher values in education.
6. Develop cooperation with interested individuals and groups in the teaching of Geography.
7. Encourage and disseminate educational research with particular reference to the teaching of Geography.
8. Publish and distribute materials related to Geography teaching.
9. To investigate and make recommendations to appropriate authorities on education policies concerning the teaching, and examining of, Geography in NSW schools.

From cinematography to augmented reality, virtual reality and QR codes



Above: AR Sandbox. (L Chaffer)

Left: Google cardboard
(<http://www.techtimes.com/tags/google-cardboard>)



#1: QR Codes

Implementation

In a Geography context, QR codes work incredibly well for "scavenger hunt" type activities. Students learn about direction and the use of compasses, they solve puzzles and navigate their way to QR codes that offer links to answers required.



Above: QR codes (<https://www.slideshare.net/kbonanno/using-technology-in-the-geography-classroom>)

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Membership is for twelve months commencing in January. A reminder notice will be sent in December.

Please make cheques payable to: **The Geography Teachers' Association of NSW Inc.**

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(Please quote **GTANSW Membership 2017** as your reference and remit us a copy of the EFT confirmation)

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Card Number: / / / Expiry: /
Name on card: Signature:

Please send completed form and payment to: GTA NSW, PO Box 699 Lidcombe, NSW 1825, Fax: 02 9564 2342

OR for membership **renewals** you can phone: 02 9716 0378

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A FRESH INSIGHT INTO ABORIGINAL LANDUSE IN AUSTRALIA

Editors comment

Bruce Pascoe spoke at the 2017 GTANSW Annual Conference about the findings revealed about Aboriginal agriculture and aquaculture in his book *Dark Emu: Agriculture or accident?*

In *Dark Emu*, Bruce examines evidence from the journals of explorers to expose the practices of sustainable aquaculture and agriculture by Aboriginal people on land much of which is considered unsuited to agriculture today. The revelation that the world's first bakers were Aboriginal was an interesting starting point for Bruce's presentation.

It is important that, as Geographers, we keep abreast of new findings and changing perspectives about Australia's past landuse as we seek to promote more sustainable forms of landuse. For this reason, I have included abstracts from an essay written by Bruce Pascoe that was incorporated into his presentation at the GTA conference, along with some images from his presentation and farm in northern Victoria, where native grain grasses are being grown to produce flour and bread.

Syllabus links:

1. **Sustainable Biomes**
2. **Landscapes and landforms – values, change, management and protection.**

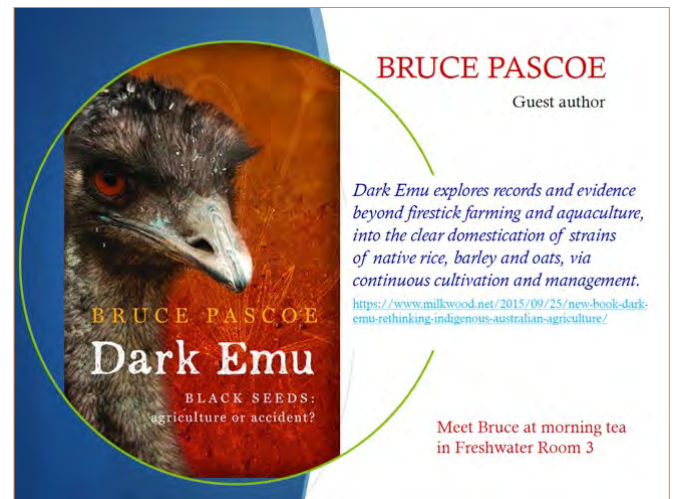
Abstracts from Bruce Pascoe essay

"When I was at school on King Island I was told that Aboriginal people had been in Australia for 7,000 years. By the time I got to Mornington I was told it was 12,000 years. At Fawkner High School, the assessment had risen to 30,000 years. At Melbourne University, we were told 40,000 years was the absolutely correct answer based on carbon dating. No-one told us carbon dating could only measure to 40,000 years after which the carbon trace disappeared.

Analysis of cave deposits in the Kimberley and Tasmania and cave art in the Territory bumped the figure to 50,000 years and then the analysis of an ossified midden at ¹Warrnambool in 2016 came in at 80,000 years using a new technique. The archaeologist ²Singh suggests Lake George pollen tests hint at an age of 120,000 years.

¹ Warrnambool Standard, 15 June 2015

² Howell-Edwards, W, *An Introduction to Aboriginal Societies*, p13



The last two dates turn the Out of Africa theory on its head. Even the proponents of that theory are having second thoughts after new research comes in from other continents. Our politicians of course are still saying 40,000 years because that is what they learnt at University.

We were taught each of these dates with absolute certainty by our history teachers. They also taught us that Aborigines were hapless wanderers of the soil who roamed from one witchetty grub to the next bush tomato with no plan or care for tomorrow.

After I wrote the contact history, *Convincing Ground*, in 2009 I began to review some aberrant passages in the explorers' diaries. They suggested Aboriginal people were seen planting, irrigating and harvesting crops. When I pointed these out to some archaeologists and historians I was howled down. In a very kind and genteel way of course.

The instantaneous scorn for the suggestion that Aboriginal people had agency in the land concerned me. But I'd seen these reports in writing and the resistance to these ideas convinced me that if I was to investigate this matter in any greater depth I would have no hope of convincing Australian academics unless I used an unimpeachable source. I would have to turn exclusively to the first-hand reports of the Australian explorers and pioneers.

In *Dark Emu*, I sifted the evidence of organised Aboriginal agriculture, building and continental governance. I relied almost exclusively on the journals of the first European visitors to Aboriginal land.

A FRESH INSIGHT INTO ABORIGINAL LANDUSE IN AUSTRALIA

There were a few shots fired back on social media and I had to scurry to check my sources. One history sleuth accused me of manufacturing and distorting evidence and he cited as the most glaring example my placing of ³Charles Sturt in the desert when he was saved by Aboriginal people, people who had never seen either a white man or a horse. They gave him water and a house and fed him on roast duck and cake.

And my inquisitor was quite right. I'd made a mistake of about 70 kilometres and you'll agree that in the context of the Simpson and Sturt's Stony deserts that is a hanging offense. Sturt was in the desert, the Aboriginal people were cropping the ephemeral river bed, Sturt did extoll the wonders of cakes, duck, houses and social harmony and cohesion, but I had made an error of 70 kilometres. All of it sandhills.

My critic also accused me of 'making things up'..... but unless the explorers were lying, the proof is in their journals. The explorers were not really interested in Aboriginal people as they were employed to find, grass, water and inland seas, so the fact that they reported Aboriginal activities at all is a brief diversion from their duties as servants of the colony and empire.

We are entering a period of re-reading the accepted history. I try to avoid words like revision and revisit because they don't do justice to the enormity of our task and that task is to read every document with a critical eye, not with the eye of someone convinced of Aboriginal incompetence but someone who reads as critically as possible, someone who has read that Lt Grey saw yam fields stretching to the horizon in Western Australia and so deeply tilled he couldn't walk across them and that ⁴Sir Thomas Mitchell rode through nine miles of stooked grain which his fellow explorers referred to as an English field of harvest.

Having read those passages and others by Stapylton, Giles (both of them), Gregory, Warburton and hundreds of others it is wise to keep an eye out for the repeated references to the Aboriginal agricultural economy. It is too late to wonder why these references were never considered important enough to read to our school children or the nation because the ignorance created by that omission has already fettered every interaction between the two races".

Bruce Pascoe

NOTE: Bruce's PPT and full essay are available to GTANSW members and conference delegates on the GTANSW website along with other conference presentations.

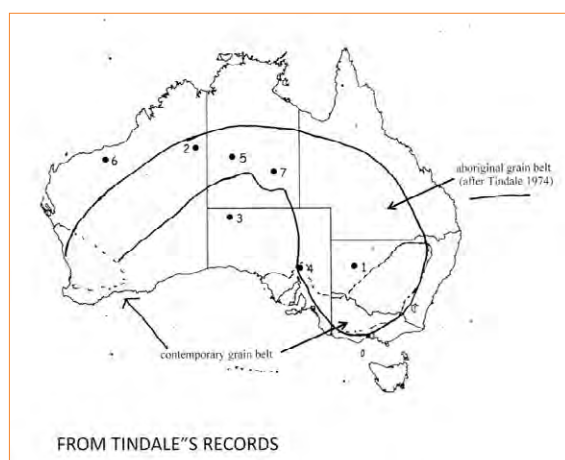


Image 1: A much larger grain belt than exists today

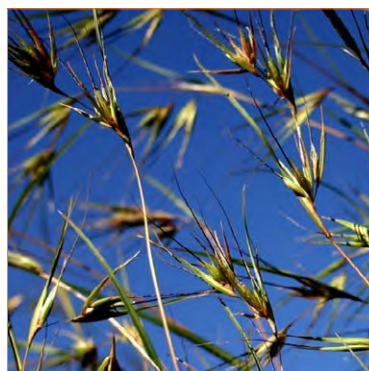


Image 3: Kangaroo grass on Bruce's farm



Image 4: Bread produced by grinding grain into flour bread.



Image 2: A drawing from an historical diary showing a grain storage facility in an Aboriginal village



Image 5: Grain harvest time on Bruce's farm

4. Mitchell, T, Journal of an Expedition into the Interior of Tropical Australia, Vol1 p237-238

3. Pascoe, B, Dark Emu, p74-75

A RIVER IS A 'PERSON'



Dr Susan Bliss

GeoWorld 7, 8, 9, 10 (Macmillan)

Whanganui River, New Zealand Source: https://upload.wikimedia.org/wikipedia/commons/b/b7/Whanganui_River_-_New_Zealand.jpg

In March 2017, landmark court rulings in New Zealand and India gave specific rivers the legal status of a 'person'. The rivers involved are the Whanganui River by the New Zealand government and the Ganges River and its main tributary Yamuna, by the Uttarakhand government in India.

The law in both countries, declared that living entities such as a river, possess the status of a legal person and all their corresponding rights. These holistic earth-centred laws will guide the future management of these rivers. Activists celebrating this ground breaking law should be cautious, as the scale of the task is mammoth.

Location: Wanganui River on New Zealand's north island (source and mouth in blue)



Map: <http://www.teara.govt.nz/files/m-2174-enz.jpg>

Now, the river is just like you and me. One wonders what would occur to the management of the Murray and Darling Rivers if granted the status of a person.

Whanganui River, New Zealand

New Zealand's law designated the Whanganui River, the country's third longest river, as a legal person. The 145km long river, called *Te Awa Tupua* in Maori, became the first natural resource in the world to be granted the same legal rights as a person. The river is recognised as 'indivisible' and a 'living whole from the mountains to the sea'. It incorporates the river's tributaries and all its physical and spiritual elements.

The river is a person in the sense that it can own property and acquire debts. Companies and foundations have legal rights and responsibilities independent of the people they employ-then why not a river?

The local Maori tribe called the Whanganui *iwi* have a deep spiritual connection to their ancestral river. A local proverb states '*I am the river and the river is me.*' The Wanganui *iwi*, have been fighting to proclaim their rights over the river since the 1870s, making it New Zealand's longest running legal dispute. Now it is over!

The law has stated that two guardians will act for the river – one for the *iwi* and one for the government. Under the settlement the government will pay the *iwi* NZ\$80million as compensation for past abuses and a



Whanganui iwi rowing on Whanganui River

Photo: <http://www.aljazeera.com/news/2017/03/zealand-river-world-legal-person-170316091153248.html>

fund will be set aside worth NZ\$30 million to enhance the 'health and wellbeing' of the river. An office called *Te Pou Tupua*, will act as 'the human face' of the river.

Sources

- <http://www.economist.com/news/asia/21719409-odd-legal-status-intended-help-prevent-pollution-and-other-abuses-new-zealand-declares>
- <http://www.stuff.co.nz/national/90516475/if-the-whanganui-river-is-a-person-is-it-just-like-you-and-me>
- <http://www.ecowatch.com/new-zealand-whanganui-river-2315449092.html>
- Top tips for healthy streams NZ and Whanganui Catchment Area <http://www.whanganui.govt.nz/our-district/major-projects/healthy-streams/Documents/Healthy%20Streams%20brochure%20for%20web.pdf>

Below the pristine Whanganui River and at left pollution of the Ganges River



Source: [https://commons.wikimedia.org/wiki/Category:Aerial_photographs_of_Whanganui#/media/File:Photo_taken_in_Whanganui_-_panoramio_-_Duane_Wilkins_\(2\).jpg](https://commons.wikimedia.org/wiki/Category:Aerial_photographs_of_Whanganui#/media/File:Photo_taken_in_Whanganui_-_panoramio_-_Duane_Wilkins_(2).jpg)

Source: <http://www.dailymail.co.uk/news/article-4334454/India-grants-Ganges-Yamuna-legal-person-status.html>

Ganges and Yamuna Rivers, India

In India the Ganges and Yamuna Rivers now have the same rights as humans in a bid to fight pollution. The Ganges flows more than 2,500km from the Himalayan Mountains in northern India, through Bangladesh to the Bay of Bengal. The Yamuna is the Ganges longest tributary. The rivers are sacred to Hindus for their miraculous healing powers, and attract pilgrims who ritualistically bathe and scatter ashes of their dead. However, the rivers are heavily polluted from 1.5bn litres of untreated sewage and 500m litres of industrial waste, entering the rivers daily.

The Ganges River and Yamuna originate (source) in the northern Himalayan state of Uttarakhand. The highest court in Uttarakhand now gives the rivers human status. It signifies to everyone, that harming or polluting the rivers comes with the same consequences as harming a person.

The law states that a management board is to be established, and three officials appointed to act as legal custodians responsible for conserving and protecting the rivers and their tributaries. Pollution of rivers is now illegal but preventing pollutants being discharged into the rivers, will be a difficult task.

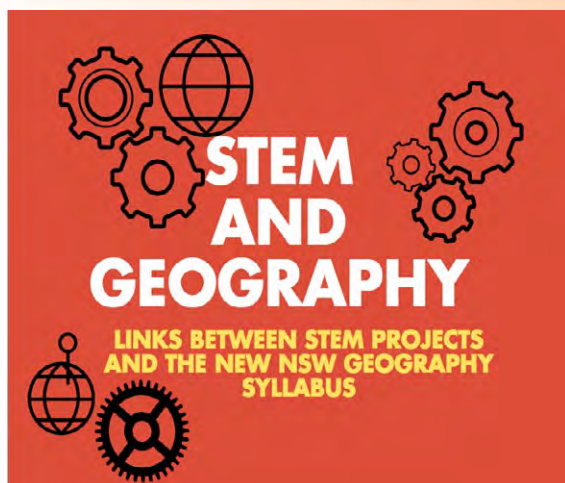
Location of Ganges and Yamuna Rivers



Map: https://lh6.googleusercontent.com/-MhFZFjbaTPc/UDE3Kzi5_pl/AAAAAAAAABig/XWqveJ0RcNU/s800/Ganga%2520River.jpg



WHERE IS THE “G” IN STEM?



Exploring opportunities for Geography and STEM

**Louise Swanson, Deputy Principal,
Balmain Secondary College, Balmain Campus.**

(Adapted from Louise's blog HSIE Teachers at www.hsieteachers.com/home/where-is-the-g-in-stem-exploring-opportunities-for-geography-and-stem)

I attended the Department of Education's STEM Showcase in 2016. STEM is Science, Technology, Engineering and Maths. STEM based learning is clearly a movement that is gaining momentum and gaining significant funding. My question is where does Geography fit into this? Or History? Or Commerce?

What occurred to me is how many of these STEM projects have obvious crossovers with humanities subjects, particularly Geography. This article looks at a few of the presentations and presents some ideas of how humanities subjects could also be included in STEM.

Baulkham Hills High School – Weather TECH

Students created a STEM project involving the construction of a weather station. This involved a design process, coding of the equipment, manufacturing the equipment with a 3D printer, and collecting and analysing weather data.

In the Science faculty, this was undertaken as part of a student research project. In TAS, students developed skills in using CAD and CAM software and Arduino to design, code and create the equipment. In Maths, students' skills were developed in analysing and presenting the vast amount of weather data collected. Students (and teachers) successfully created a working model with equipment collecting weather data every second. The real world applications to agriculture were emphasised.

*****In the new NSW Geography syllabus K-10 the WeatherTECH project would fit easily within the Water In the World topic, particularly Water resources and the Water cycle. It also addresses fieldwork requirements – using weather instruments.***

Examine the WeatherTECH project site – <http://stem-nsw.com.au/teaching-stem/stage-4-stem-projects/baulkham-hills-high-school>

Bellingen High School – Survive the Shake

The topic of this STEM project was earthquake proof buildings. Students designed, produced and evaluated a multi-storey building with a small footprint, which was specified. Students were provided with a design process to follow which provided a scaffold to follow during project. Students were required to use cheap materials such as straws, toothpicks, marshmallows, etc to create a model of their buildings. Building designs were tested on an earthquake shake table created by the teachers.

In the Science faculty, the project tied into content related to earthquake size and magnitude, damage and destruction and prediction of quakes. In Math, it tied in with content related to geometry, 3D design shapes and budgets. The construction of the buildings and the design process involved the TAS faculty.

***** In the new NSW Geography syllabus the Survive the Shake project would fit into Landforms and Landscapes, particularly Geomorphic hazards. This could easily incorporate the inquiry based learning skills in the syllabus.***

Examine the Survive the Shake project site. – <http://stem-nsw.com.au/teaching-stem/stage-4-stem-projects/bellingen-high-school>

Riverside Girls High – Post-Earth Survival

The girls at Riverside completed a STEM project examining the requirements to sustain life. Students explored the universe and designed a colony suitable for sustaining life on another planet. Students focused on: What do humans need to survive?

The project used a design process from the TAS faculty and this was used to determine project milestones. TAS introduced the students to the tools they would need to complete the project such as Sketch Up, 3D printing, etc.

Exploring opportunities for Geography and STEM

Students brainstormed what it would be like if they were locked inside their house and had to stay there for 2-3 years. What would they need? What would they have to change? Students collected data on energy and water use in their own homes. From a Maths perspective students had to develop problem solving and reasoning skills, as well as data analysis. The project also incorporated the EcoMuve program from Harvard University. Assessment and presentation involved peer review and feedback.

**** In the new NSW syllabus the Post-Earth Survival project would fit into Place and Liveability, particularly Influences and perceptions. This could also incorporate the inquiry based learning skills in the syllabus.**

Examine the Post-Earth Survival project site. – <http://stem-nsw.com.au/teaching-stem/stage-4-stem-projects/riverside-girls-high-school>

Promoting Geography and boosting numbers

A lot of time, effort and money is being spent on promoting STEM to our students. As Geography teachers, we are constantly looking for ways to promote our subject and boost senior numbers. There are plenty of ways to do this, but I think getting involved in STEM projects or at least other cross curriculum projects might be one idea that is worth a bit more consideration.

STEM and Geography in Primary Schools – <http://stem-nsw.com.au/teaching-stem/stage-3-stem-projects>

More details will be added to this site throughout 2017



Screen captures from the STEM Firestorm Project video.



ST Ives North Public School: The Firestorm Project Stage 3 Geography

St Ives North is in a bushland setting where the impact of bushfires is an authentic issue for students and the local community. The driving question for the project was: How can the community of St Ives prepare for, survive or recover from a catastrophic bushfire event?

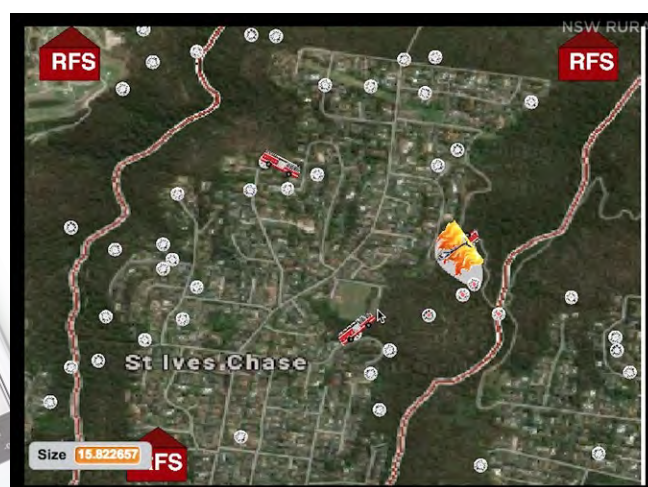
Using Design Thinking processes, teachers and students used problem solving strategies to address the question. The final student projects were presented in a showcase called STEM Firestorm Project attended by the NSW RFS Commissioner and community members.

**** A STEM grant was used to develop the Stage 3 Geography Unit on bushfires.**

Spatial technologies were an integral part of Project Firestorm planning.

<http://stem-nsw.com.au/teaching-stem/stage-3-stem-projects>

NOTE: GTANSW members can learn more about Project Firestorm on the GTA website where the PPT presentation in Session 2 by St Ives North Public School and the NSW Rural Fires Service can be found. There is also a 4-minute documentary about the project.



PLACE AND LIVEABILITY

SOME TEACHING IDEAS

Lorraine Chaffer
President GTANSW
Geography Education Consultant



In Lima, Peru, a water park attracts children and adults improving social connectedness and people's quality of life

<http://photography.nationalgeographic.com/photography/photo-of-the-day/water-park-peru/>

Place and Liveability

Lorraine Chaffer

AGTA Conference 2015

The following pages are a selection of slides from a presentation I gave to the Australian Geography Teachers Association Conference in Auckland 2015.

When I first heard the term liveability and discovered it was the main theme of a unit in year 7 of the Australian Curriculum (Stage 4 NSW Syllabus) I was a little overwhelmed. On further investigation, the "What on earth would I teach" became "there is way too much to choose from" – the question became 'What on earth will interest year 7?'.

Investigating liveability in Year 7 is well placed as the concept is connected to other Geography units – Landscapes, Water, Changing Places (Urbanisation), Interconnections, Sustainable Biomes, Environmental Change and Human Wellbeing.

The concept of liveability can be examined at a variety of scales from a local street (liveable streets), to nations and regions (wealth and poverty / developed/ developing, rural / urban, Asia) and global (Earth, ecological footprints, biocapacity). Students should investigate a range of places.

Part 1 looks at activities to introduce liveability and factors that influence people's perceptions of liveability. Any one of these activities can lead into an investigation of factors influencing the liveability of places and ways of measuring and assessing the liveability of places.

Part 2 in the next edition will look in more detail at the integration of geographical tools and enhancing the liveability of places at a range of scales.

Content focus NSW Syllabus

Students:

- **discuss** factors that influence people's perceptions of the liveability of places.
- **investigate** features and characteristics of places across a range of scales that support and enhance people's wellbeing such as community identity, environmental quality and access to services and facilities.
- **assess** the liveability of places
- **propose** strategies to enhance the liveability of a place in Australia.

NSW Geography Syllabus K-10 Page 62

Liveability

An assessment of what a place is like to live in, using particular criteria such as environmental quality, safety, access to shops and services and cultural activities.

Liveability Criteria

Characteristics used to assess the liveability of places or their contribution to people's quality of life
e.g. safety, healthcare, education, infrastructure and environment.

Liveability Index

A measure of liveability/quality of life based on a set of criteria and used to rank places. Used principally to rank the world's largest cities by the quality of life they offer. (Syllabus Glossary)

Liveability – a new languagebut nothing new at all

Liveability is a human construct and it is not new. When we make judgements about places e.g. "I couldn't live in this street" or "I wouldn't mind living in this suburb" – we are assessing / evaluating liveability – we just never called it that before.

Liveability, sustainability, walkability, 'quality of life', 'human well – being' and many other concepts have become the new language of planning better **places** to live

The Challenges of “Place and Liveability”

- **Choosing content** – just about anything can influencing perceptions of liveability
- **Integrating key concepts and cross curriculum priorities** – make them integral
- Using **Geographical Inquiry and Geographical tools** including the use of **fieldwork**
- **Programming to avoid repetition** of content with Geography topics in 7 – 10 eg. Water, landscapes , urban places, biomes, global connections, environmental change and wellbeing ... all of these influence the liveability of places
- **Engaging 12-13 year olds** – use ICT , visual images, interesting places and relevance to teenagers

Introductory Activities

1. Opposites

- What don't you want the place you live in to be like ? – turn this into a list of factors that influencing liveability
- All places are liveable to some degree. Why do people live in places with low liveability characteristics? Use examples eg extreme climates, place prone to hazards, war zones, slums

Rather than begin with a definition of liveability and a discussion of factors influencing where people live



Brainstorm the things students do **not want** in the places they live eg noise, pollution, lots of traffic, crime, danger, drug dealers, emptiness, isolation, extreme heat or cold. Answers will depend on students location and experiences.

But people do live in places with these characteristics – Why?

Use examples - integrate geographical tools and skills eg. maps,



This can lead to a discussion of the features they want in the places they live and the development of personal liveability criteria.

Example

Features not wanted	Factors influencing liveability
Dangerous, violence, crime, natural hazards, war, drugs	Safety from natural and human dangers eg natural hazards, war, crime
Pollution, noise, old or run down buildings,	Environmental quality
Too hot, very cold, deserts/ lack of water	Environmental quality
Isolation / too far away / no Internet/ No TV / No phone connection /	Connectedness – to services and facilities
Slums	Environmental quality, services and facilities
No places to meet, play or socialise	Social connectedness
English not spoken, racist	Cultural identity

Refer to examples

- Why people do live in these places
- What trends are apparent
- How are these places made more liveable

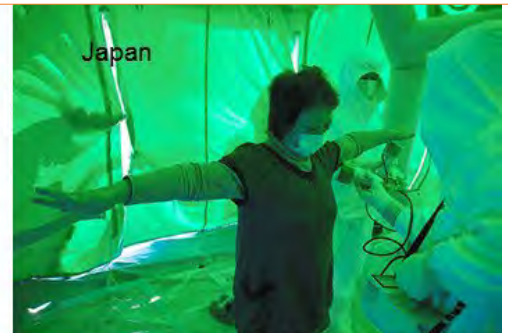
Indonesia



<http://thewatchers.adorraeli.com/2011/08/07/18-indonesian-volcanoes-on-alert-status/>

People live in dangerous and extreme places.
Why?

Japan



<http://www.guardian.co.uk/world/gallery/2011/mar/15/japan-nuclear-plant-fukushima#?picture=372735447&index=16>

War zones, near volcanoes & nuclear power stations.

Afghanistan



<http://www.un.org/apps/news/story.asp?NewsID=39036#UFM1215zr0c>

Remote, arid & cold climates

Ethiopian highlands



<http://www.volcanodiscovery.com/things-to-see-in-danakil/salt/photos0208/image11.html>

Pacific & Indian Oceans



Sea gypsies

<https://www.flickr.com/photos/ramdiboy/4151693456/>

Location factors

Cultural – Moken - sea gypsies, Indonesia
Environmental e.g. resources
Economic - poverty, no choice, livelihood

Example: Living in Indonesia's volcanic zones

Ash clouds, mudflows, poisonous gases, lava flows and tsunamis threaten lives, and livelihoods in Indonesia every year yet millions continue to live under volcanoes



<http://www.corbisimages.com/Search#p=1&q=volcanoes+indonesia>
<http://www.corbisimages.com/Search#p=1&q=volcanoes+indonesia>

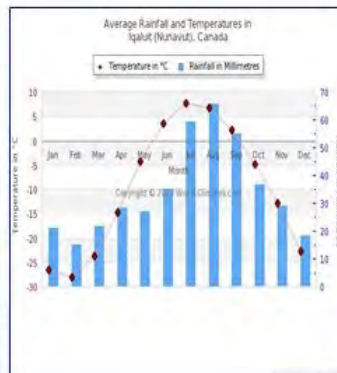
Poverty restricts people's ability to move
(economic factor)

- The factors that influence the decisions people make about where to live and their perceptions of the liveability of places
- Influence of environmental quality e.g. danger vs. resources (economic)
- Influence of community identity & social connectedness – religious beliefs, family traditions and perceptions of safety
- The strategies used to enhance the liveability of places

Example: Living in polar climates



NUNAVUT home of the Inuit who have occupied the arctic for over a thousand years living on environmental resources and developing a unique culture based on seasonal cycles of the land and sea.



Liveability **changes** over time
Technology can overcome remoteness & improve connectedness

(economic, environmental social & cultural factors)

<http://www.worldatlas.com/webimage/countrys/america/province/lcolor/nucolor.htm>
<http://www.world-climates.com/city-climate-igaluit-nunavut-canada-north-america/>
<http://www.arcticphoto.co.uk/gallery2/arctic/peoples/inuitcan/ba9918-29.htm>

Curriculum links

- The factors that influence the decisions people make about where to live and their perceptions of the liveability of places
- Influence of environmental quality- resources, climate change
- Influence of accessibility to services and facilities
- Influence of social connectedness & cultural identity
- The strategies used to enhance the liveability of places, especially for young people

2. Photo interpretation / ranking activity

- Use a variety of images and have students rank them according to their perceptions of liveability – or where they would like to live most to least.
- Discuss / list the criteria they used to determine their rankings
- Identify features that cannot be shown in an image (Tangible & intangible characteristics / quantitative & qualitative data)



At the end of the discussion students (individually or in groups) can develop a set of liveability criteria to apply to a local place

Curriculum links

- The factors that influence the decisions people make about where to live and their perceptions of the liveability of places
- Influence of environmental quality e.g. danger vs. resources (economic)
- Influence of community identity & social connectedness – religious beliefs, family traditions and perceptions of safety
- The strategies used to enhance the liveability of places

3. Think of a Place: Assess liveability

BY THE CITY FOR THE CITY

SHARE AN IDEA | MAP OF IDEAS | LIST OF IDEAS | ABOUT

Wouldn't it be great if...

There were more street lights lights and footpaths

Characters left: 500

Where?

Example: Corner of 4th St & Broadway Manhattan, or All of the South Bronx

Between the shops and the new estate

Characters left: 200

So that people could...

Feel safer and more comfortable walking from home to shops and back.

Because I want the city to be...

Safe, walkable, healthier

ANY SCALE

World
 Country
 State
 Region
 City
 Town
 Suburb
 Neighbourhood
 Street

A simple activity easy to adapt to classroom use to develop students' ability to evaluate the liveability of their own place and to investigate whether it can be improved through planning


To complete this activity you have made an assessment about the liveability of your chosen **place**.

What criteria did you use?

Safety, access to services & facilities, environment, OR lifestyle, culture, community, family, employment.

HOW WOULD A TEENAGER RESPOND ?

A similar activity: Open question

Results – free associations 

Instructions:
I am interested in the kind of city you would aspire to live in the future. Please write or draw the different words and images that show this in the boxes below. Please give only one thought/image per box.

1 Not too crowded Space to be yourself	2 Friendly people
3 Lots of shops and amenities	4 Somewhere hot near the sea

Female, 55-67, lower SES, White, Birmingham

1 No noise, no city, no cars, no traffic	2 No noise, no city, no cars, no traffic
3 Green, no noise, no city, no cars, no traffic	4 Green, no noise, no city, no cars, no traffic

Male, 55-67, higher SES, White, Southampton

<http://www.slideshare.net/UKCIP/arcc-20141bjoffesmithliveable-cities?related=3>

The kind of place I aspire to live in

4. Hypothetical

Choose a location and justify choice

Open question: If you could live anywhere in the world, where would you like to live?

Give options with selected information about each place for students to choose eg. maps, climate graphs, employment statistics, travel, recreational facilities etc.



Photo: L. Chaffer

Perceptions of liveability

Sydney



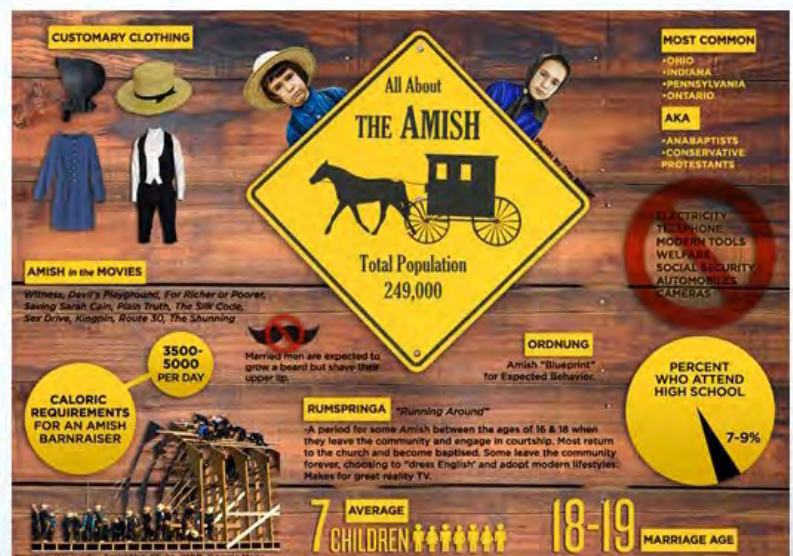
<http://www.heraldsun.com.au/travel/news/australian-open-of-surfing-draws-a-crowd/story-fn32891l-1226272775891>

A variety of factors will influence our perceptions of the liveability of places e.g. age, income, wealth, employment, aspirations, interests, location

What influences our Perceptions? : Age, lifestage & lifestyle

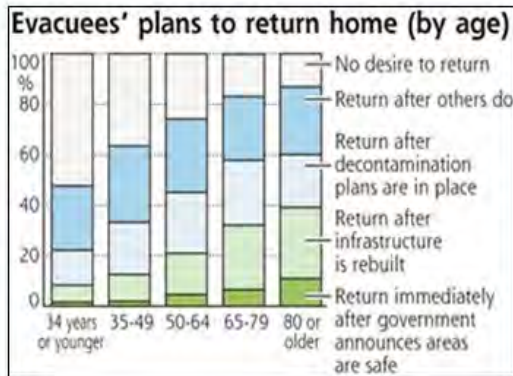


<http://www.cartoonstock.com/directory/a/ages.asp>



http://infographiclist.files.wordpress.com/2011/12/allabouttheamish_4ede99abdd59c.j

Age influences perceptions of liveability in Japan



<http://www.yomiuri.co.jp/dy/national/T111109005814.htm>

The younger the respondents, the less likely they were to wish to return to their pre-crisis addresses. More than half of those aged 34 or younger said they would not return.

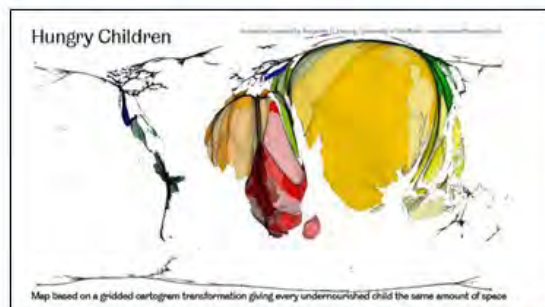
Millions of people live in close proximity to **nuclear power plants**

After the nuclear accident at Fukushima, Japan, in 2011, people questioned the safety of living adjacent to these sources of power.

For many people, the fear of a nuclear accident would prevent them from living beside a nuclear neighbour. In Japan, after the clean up of the area and the removal of topsoil, people evacuated from eight municipalities around the Fukushima plant, will decide whether to return or move.

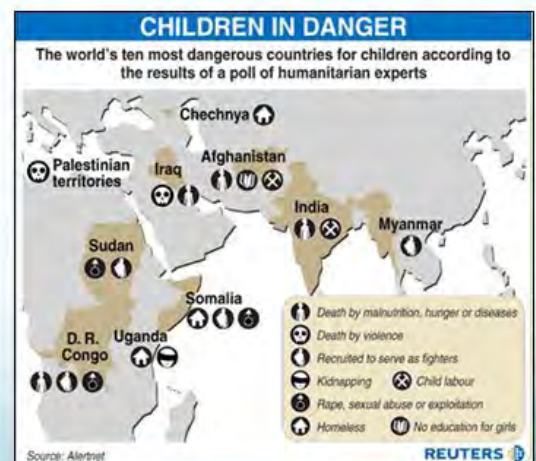
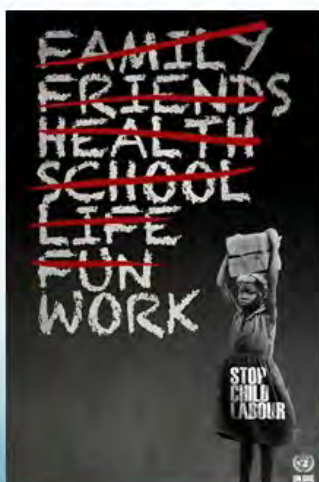
Source: GeoWorld 7 NSW

Liveable **places** for children



<http://www.viewsoftheworld.net/?p=1710>

LOTS OF GREAT STIMULUS MATERIAL



http://www.veatchild.org/news/News_archive/2006/dangerouscountries/dangerouscountries.html

<http://imagine2050.newcomm.org/2008/10/04/the-grisly-truth-behind-soccer-ball-manufacturing/>

http://adsoftheworld.com/forny/exhibition/eradicate_child_labour

Concluding introductory activities 1



Images from GeoWorld 7 NSW



The importance of factors will vary between individuals and will change over time e.g. access to schools. Some factors e.g. personal safety are important in all phases of our lives while in recent years environmental quality has become more important

Human rights such as freedom, the availability of goods and services, personal [safety](#), [education](#), [health care](#), [culture](#), [environment](#), [recreation](#), employment, political-economic stability, public transportation, climate and access to nature are used to measure livability in the global surveys.

GeoWorld7 NSW

Concluding introductory activities 2



Make a list of the personal and location factors that affect where you and your family currently live.

Why do the factors affecting peoples decisions change over time?

Do you think "livability" and "quality of life" mean the same thing? Explain.

List factors that would be important to you but are missing from the Wordle.

2016 HSC Geography High Achievers

The Geography Teachers' Association of NSW recognises the achievement of the state's top HSC students for 2016.

Presented by Belinda Thompson, Schools and TAFE Program Manager, UrbanGrowth NSW, the HSC Geography Award recipients are:

First Place	Andreas Orsmond Sydney Grammar School
Second Place	Elise Diamond Wenona School
Third Place	Ash Cleary Sydney Grammar School
Fourth Place	Marnie Elise Clarkson Abbotsleigh
Fifth Place	Declan Connor Murdoch The King's School
Sixth Place	Rebecca Diaz Stella Maris College
Seventh Place	William Thomas Thackway Fort Street High School
Eighth Place	James Kalas Sydney Grammar School
Ninth Place	Sarah Jean Healey Abbotsleigh
Tenth Place	Elaine Huynh



Belinda Thompson, UrbanGrowth NSW

The Geography Teachers' Association of NSW recognises the achievement of the teachers of the state's top HSC students for 2016.

The teachers of the HSC Geography Award recipients are:

Paul Corkin
Sydney Grammar School

Sue Kerr
Wenona School

Brett Marturia
Sydney Grammar School

Sean Kelleher
Abbotsleigh

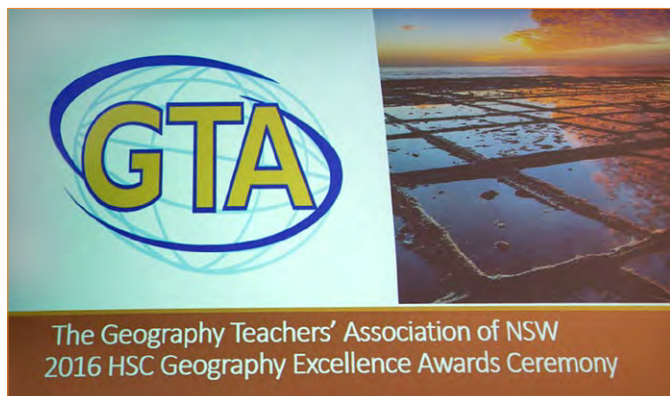
Drew Collins
The King's School

Margaret Heraghty
Stella Maris College

Robert Begg
Fort Street High School

Brett Marturia
Sydney Grammar School

Vanessa Santoro
Meriden School



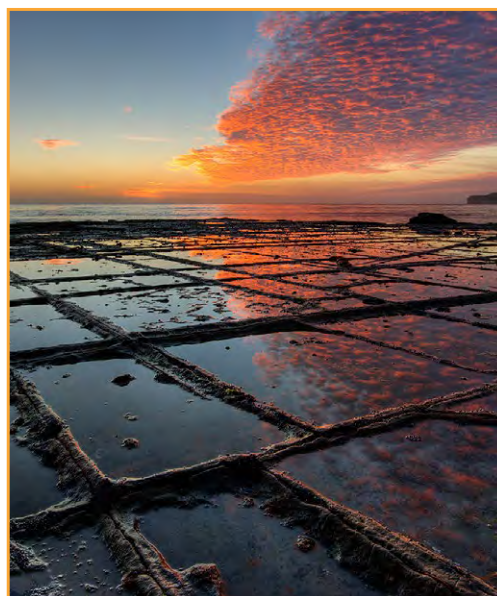


Belinda Thompson from UrbanGrowth NSW presented awards to the top ten achievers in Geography in the 2016 examination and their teachers



The Geography Teachers' Association of NSW

2016 HSC GEOGRAPHY



AWARDS CEREMONY

Novotel Sydney Olympic Park, Friday 10 March 2017



2016 Arthur Phillip Fieldwork Competition

The GTA NSW Fieldwork and Visual Presentation Award

First Place

Niamh Elliott-Brennan

Jhu Htet Maw

Aarthi Murra

Year 9, Fort Street High School

Teacher: Robert Begg

Synopsis: The LGBT Community in Canterbury.

The study investigated a current issue in human Geography that explored the factors that may influence views about the LGBT community. Links were clearly made to the impacts that age, race, religion and education have on the LGBT community in Canterbury. The students prepared a digital presentation using Weebly that was visually interesting, easy to navigate and had strong Geographic conclusions.

Second Place

Yuntao Jiang

Sarah Tran

Kristy Yeats

Year 9, Fort Street High School

Teacher: Robert Begg

Synopsis: The Art of Graffiti

Graffiti is a controversial and widespread issue that is a prevalent world issue, its definition is blurred. Throughout the student research they were able to define graffiti, investigate the perceptions of safety due to graffiti and how it has impacted on the Bankstown community. The Weebly was visually strong with attention to detail and geographically tested perceptions by the gathering of primary and secondary sources.

Equal Third Place

Runkai Hong

Alison Hwang

Year 9, Fort Street High School

Teacher: Robert Begg

Synopsis: Epping Schools Research Action Plan

The Research Action Plan investigated the impacts of the changing population on public schools in Epping. The findings were based on primary sources that linked to the key aim of the action plan. The digital presentation used Weebly to clearly present the findings in a creative way.

Anneka Tan

Year 9, Meriden School

Teacher: Julie Shannon

Synopsis: Factors Causing Change in North Strathfield

A variety of primary and secondary sources including interviews established impacts of changing culture on North Strathfield. The students specifically linked cultural integration and new technology to the changing culture evident in North Strathfield. The digital presentation used Weebly succinctly to present the data collected.

Equal Highly Commended

Tilda Stafford

Year 9, Meriden School

Teacher: Julie Shannon

Synopsis: Change in the Leichhardt Community

An investigation into the factors causing change in the Leichhardt community. The research and fieldwork conducted demonstrated a strong understanding if the factors causing change, the impacts of change and the future prospects of this Sydney suburb. The digital presentation in Weebly was clearly presented and showed attention to detail.

Lily Yang

Year 9, Meriden School

Teacher: Julie Shannon

Synopsis: Factors Causing Change in Burwood

The investigation explored a key contemporary issue in Burwood community. The investigation surrounded the theme of change and the impacts on this Sydney suburb. The consequences of change further enhanced by the community responses to the factors of change. The digital presentation was clear and used Weebly to convey the findings of the fieldwork

The Global Education Fieldwork and Research – Stage 4

First Place

Caitlin Ping

Year 7, Irrawang High School

Teacher: Clair Wotton

Synopsis: Olympic National Park in USA

The report investigated Olympic National Park in the USA. A clear description of the characteristics of the world heritage site as well as an explanation of the criteria that makes this national park declared both an international biosphere reserve and a world heritage site. A strong aspect of

GTANSW AWARDS

the research was the threat of exotic plants and their management. A postcard was an additional component of the report where the student showed the importance for care and protection of the site

The Global Education Fieldwork and Research – Stage 5

First Place

Mia Specia

Year 10, St Mary Star of the Sea College Wollongong

Teacher: Lisa Kendell

Synopsis: The Effect of Pokémon Go on Wollongong's Local Economy

The website created showed an interesting study of the global phenomena of Pokémon Go on Wollongong's local economy. Inspired by the trend of success for local business and undertaken during peak of interest in the app. The study explored the opinions of both the general public and employees.

Second Place

Alicia Baines

Year 10, St Mary Star of the Sea College Wollongong

Teacher: Lisa Kendell

Synopsis: LGBTQ Community in Wollongong

A website was created to show the findings about this contemporary issue. The study looked at the historical context of LGBTQ community and an outline of what factors have impacted on the opinions of community members. A major highlight of the task was the inclusion of strategies to address the opinions in relation to the topic of marriage equality.

Third Place

Jiselle Perez

Year 10, St Mary Star of the Sea College Wollongong

Teacher: Lisa Kendell

Synopsis: Homelessness in Wollongong

The website very clearly presented the findings based on research about this global issue. The data looked at homelessness as a growing social phenomena that effects communities such as Wollongong and the associated search for accommodation in coastal cities. The conclusion showed detrimental impacts of limited crisis accommodation and impacts of government policy.

Equal Highly Commended

James Foster

Jacob Irlam

Chloe Jenner

Georgia Sulis

Telika Willis-Monk

Year 10, Irrawang High School

Teachers: Catherine Donnelly and Kate Connor

Synopsis: Reducing Food Miles at Irrawang High School

The report was a proposal that included a clear explanation of the impacts of food miles on the environment. The proposal was to create a food trading scheme between the School canteen and the existing Agricultural plot. The photographs within the report enhance the visual appeal of this submission.

Emma Ackers

Chloe Barnes

Georgia Casumaro

Thomas Mildren

Nicholas Oswald

Year 10, Irrawang High School

Teachers: Catherine Donnelly and Kate Connor

Synopsis: Sustainability at Illawang High School

The students used digital technology to present a proposal to install 20 solar panels in the School. Their aim was to create a more sustainable School and reduce electricity costs. The students calculated real costs and savings with an aim to turn the project around within 3 years.

The Global Education Fieldwork and Research – Stage 6

First Place

Gabriel Laurence Van Duinen

Year 11, Australian International School Singapore

Teacher: Neisha Pratt

Synopsis: Tioman Island Rainforest

The fieldwork report was presented as a Web Story using global issues facing rainforest biomes. Excellent detail and analysis of the threats at a local scale. The research conducted showed the biodiversity in primary and secondary rainforest near Paya Beach in Pulau Tioman Malaysia.

The Dr Don Biddle Issues in Australian Environments Fieldwork

Equal First Place

Naomi Poscoliero

Year 10, St Mary Star of the Sea

Teacher: Lisa Kendell

Synopsis: The impact of urban development in the Tramway Woodland and Sandy Point area.

The fieldwork report on the impact of urban development in the Tramway Woodland and Sandy Point area. The impacts of industrial development were measured against the water quality in three creeks; Hevitts, Tramway and Woodlands demonstrated the application of academic rigour and a planned course of action with clear links between the data collected and the analysis formed. Data was presented in a variety of methods with a view of future management strategies.

Grace Wong

Year 10, Tara Anglican School for Girls

Teacher: R Wood

Synopsis: The interaction of the physical and human elements of the coastal area in Cronulla

A comprehensive investigation and sophisticated presentation of coastal management. The Research Action Plan examined the interaction of the physical and human elements of the coastal area in Cronulla. The aims of the fieldwork explicitly focussed on natural coastal process which develop dunes and how to manage human impacts. The fieldwork methods were varied and a thorough analysis of the data was presented.

Equal Second Place

Morley Cromwell

Year 10, Trinity Catholic College Lismore

Teacher: Dana Barnsley

Synopsis: Household waste and how the household can minimise the use of grocery waste plastic bags

The Research Action Plan explored the issue of household waste and how the household can minimise the use of grocery waste plastic bags. A logical approach to an everyday issue. A distinctive feature of the report was the comparison between global waste data and individual waste as well as individual actions to manage the issue.

Charlotte Sasse

Year 10, SCEGGS Darlinghurst

Teacher: Darryn Sullivan

Synopsis: Tourism in the Blue Mountains

A School developed option in the Elective Geography course enabled the fieldwork on tourism in the Blue Mountains. The report explains the drawbacks for tourism to the area, the current issues posing a threat to the industry, the management of the issues with a clear link to the Butlers' Model for Tourism. The future of tourism in the region was also a key feature of the investigation.

Equal Third Place

Jia McLaren

Year 10, Trinity Catholic College Lismore

Teacher: Dana Barnsley

Synopsis: Investigating the issue of sustainability in the use of tea bags

The Research Action Plan investigated the issue of sustainability in the use of tea bags. The aims were to explore the possible detrimental impacts on the environment and to change household use from tea bags to loose tea. A balance of both primary and secondary sources were presented in the findings.

Jishita Sathyanarayanan

Year 10, Tara Anglican School for Girls

Teacher: J Wong

Synopsis: Investigating the issue of coastal management in Cronulla

The Research Action Plan investigated the issue of coastal management in Cronulla. The purpose of the investigation was to explore the processes with coastal environments and to investigate the impacts of natural disasters on the sand dunes. Management strategies were presented to minimise human impacts in the area. It was a competent analysis including primary and secondary sources

Equal Highly Commended

Zali Drew

Year 10, Trinity Catholic College Lismore

Teacher: Dana Barnsley

Synopsis: Sustainability in the use of coffee pods.

The Research Action Plan investigated the issue of sustainability in the use of coffee pods. The aims were to explore the how many coffee pods were used in the household per week and how to recycle more of the pods. A balance of both primary and secondary sources were presented in the findings

Felicty Hickey

Year 10, Denison College Bathurst

Teacher: Heidi Waldron

Synopsis: Stewarts Mount Recycling Facility

The Research Action Plan explored the impacts of the proposed Stewarts Mount Recycling Facility. The facility is planned to hold 100 000 tonnes of food and garden waste to convert into recyclable material. The report examined the environmental and community impacts

The Brock Rowe Senior Geography Project Fieldwork

First Place

Lizzy Mee

Year 11, Merewether High School

Teacher: Rachel Tonks

Synopsis: Impacts of the Bitou Bush on coastal areas in Newcastle

A comprehensive study of the impacts of the Bitou Bush on coastal areas in Newcastle. Detailed primary and secondary sources and research methodologies analysed and presented. A clearly communicated report that showed the impacts of introduced species on the biodiversity and coastal processes. An interesting component was the evaluation of coastal regeneration projects which removed the Bitou bush

Equal Second Place

Aidan Lam

Year 11, Sydney Grammar School

Teacher: Shona Newall

Synopsis: The Lock Out Laws in Sydney

The Senior Geography Project detailed a contemporary issue the Lock Out Laws in Sydney. A detailed comparison was made between Sydney and Melbourne. The student evaluated the effectiveness and popularity of the laws in curbing alcohol fuelled violence. An interesting study of human behaviour and society that had depth in analysis and research methodologies.

Gabriel Laurence Van Duinen

Year: 11, Australian International School Singapore

Teacher: Neisha Pratt

Synopsis: The quality of the land and water in the Upper Kangaroo River

The Senior Geography Project analysed the quality of the land and water in the Upper Kangaroo River through fieldwork conducted on the Yarrowa Estate farm. The report highlighted the impacts of salinity and pest management as future challenges that need further action. High quality and depth of fieldwork both primary and secondary well established in the report.

Equal Third Place

Jemma Harbison

Year 11, Merewether High School

Teacher: Rachel Tonks

Synopsis: Parking practices in Inner Newcastle and CBD
The Senior Geography Project investigated the parking practices in Inner Newcastle and CBD. The impacts on workers and residents was a key aspect of the research. The evaluation of future issues and how they have been addressed. Clearly a detailed investigation with clearly communicated strategies including high quality research and fieldwork

Zahra Spitznagel-Reeves

Year 11, St Mary Star of the Sea College

Teacher: Adam Everatt

Synopsis: The social, economic and environmental impacts of deer in Mt Kembla

The Senior Geography Project detailed the social, economic and environmental impacts of deer in Mt Kembla. A key part of the fieldwork was to study the investigation into appropriate management strategies to reduce the impacts.

Equal Highly Commended

Sally Adams

Year 11, SCEGGS Darlinghurst

Teacher: Angela Pizzinga

Synopsis: The impacts of the residential development on Tilba Avenue Balmain

The Senior Geography Project was a report based on the impacts of the residential development on Tilba Avenue Balmain. In particular, the impacts of the construction site. The local resident perspectives were explored in addition to sound pollution were measured in the fieldwork.

Caitlyn Young

Year 11, Merewether High School

Teacher: Rachel Tonks

Synopsis: The effect of agricultural practices on the water quality of the Williams River.

The aims and hypotheses were clearly tested and presented in the report. Detailed evidence of primary and secondary sources linked to the key areas of study. The evaluation suggested possible future options to maintain and improve areas of concern.

Dr Maurine Goldston-Morris Civic and Citizenship Award

First Place

Jessie Dennett

Phebe Farrawell

Dakota Gordon

Mitchell Swan

Year 10, Irrawang High School

Teachers: Catherine Donnelly and Kate Connor

Synopsis: Sustainable School Project

Proposal to install a water tank at Irrawang High School. The project was voted on and accepted by the School community panel. The group applied to the Parents and Citizens of the School for funding to complete the project. The students were further supported by local business Hunter Irrigation and Water Solutions at Raymond Terrace who donated three 556L Tanks. They were installed on the School farm.

Second Place

Jacobi Patrick

Marienus Plooy

Hagan Zak

Year 10, Irrawang High School

Teachers: Catherine Donnelly and Kate Connor

Synopsis: Sustainable School Project

Expanding Recycling at Irrawang High School. The students undertook research to expand the paper recycling in classrooms. The students wanted to make recycling more visible and educate students about the importance of waste. The project followed three phases in the implementation with a view to a more permanent solution.

The Dr Maurine Goldston-Morris Teacher Award

The GTA Fieldwork and Visual Presentation

Robert Begg

Fort Street High School

Citation Robert has used his own curiosity as a teacher to develop his student's perspectives through the fieldwork

GTANSW AWARDS

they have undertaken. He has encouraged effective research through the use of primary and secondary sources. Students were able to engage in detailed analysis of their data as well as reflecting on their findings leading to specific action. Further, Robert has developed ICT skills to present student fieldwork research in a variety of formats. He has encouraged his students to review the spatial variations in our world.

The Global Education Fieldwork and Research

Lisa Kendall

St Mary Star of the Sea College

Citation Lisa has encouraged her students to undertake a variety of fieldwork experience as evidenced in the submissions for the competition. Student research and questions demonstrate a deep engagement in the scope of topics explored. She has clearly encouraged her students to make reflective statements about global issues linked to local area studies.

The Dr Don Biddle Issues in Australian Environments Fieldwork

Dena Barnsley

Trinity Catholic College Lismore

Citation Student submissions showed a comprehensive understanding of geographical research, of which three entries were awarded prizes in the competition. The high quality of fieldwork undertaken indicated a variety of geographical perspectives and demonstrated that she has supported and developed student thinking. Dana has clearly encouraged her students to produce excellent work and engage in Geography by utilising academic conventions and rigour.

The Brock Rowe Senior Geography Project Fieldwork

Rachel Tonks

Merewether High School

Citation The quality submissions indicate that Rachel has instilled high order critical thinking in her students as demonstrated in the awards presented for first and third place in the Brock Rowe category. The projects were both visually effective and professionally presented. It is clear that Rachel has encouraged attention to geographic detail and testing of hypotheses in the scope of entries submitted.

The Dr Maurine Goldston-Morris Civic and Citizenship Award

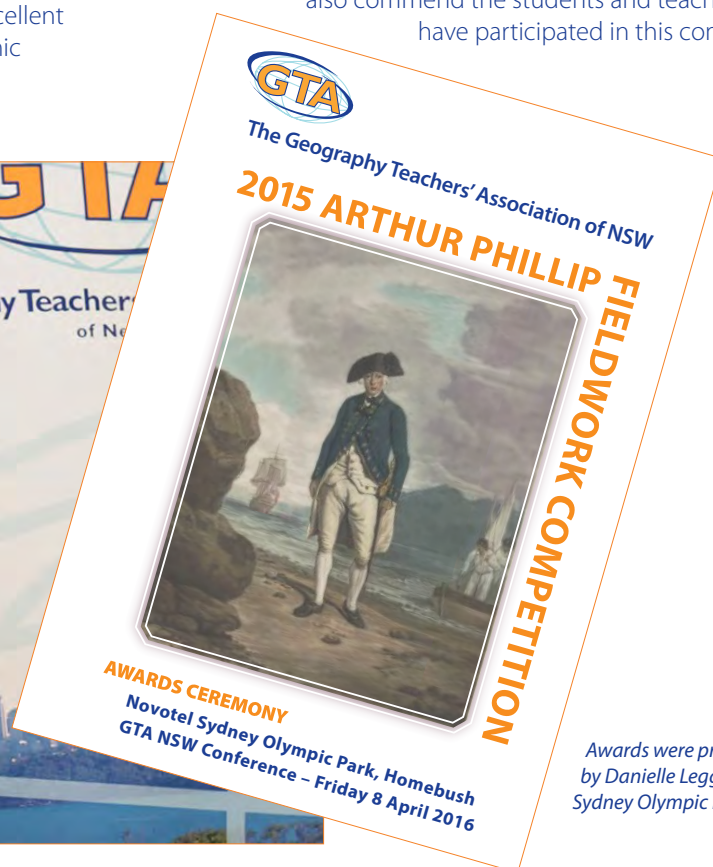
Catherine Donnelly

Irrawang High School

Citation Catherine has clearly engendered a passion for Geography in her students. The high quality of student work submitted demonstrate community values and a desire to improve the future sustainability within her School. Students engaged in the fieldwork research and wrote proposals for change carefully educating those around them to take on initiatives. She was able to encourage citizenship in her students by thinking globally about issues such as water use in her local area.

*

GTANSW would like to congratulate all the winners and also commend the students and teachers who have participated in this competition.



Awards were presented by Danielle Leggo from Sydney Olympic Park

GTANSW AWARDS



A selection of Arthur Phillip Award winners



Honorary Life Membership citation



DR SUSAN BLISS

Dr Susan Bliss joined the Geography Teachers' Association of New South Wales (GTANSW) in 1961 as a student at Sydney University and became a GTANSW Councillor in 1981, giving continuous service until her retirement in 2013. During this time Susan admirably filled the roles of President, Vice President, Geography Bulletin Editor and Councillor, contributing extensively to the programs run by GTANSW over that time. Her prolific application for grants have secured over \$1.1 million for GTANSW for professional learning and resource development. Susan represented GTANSW on the Board of Australian Geography Teachers' Association and took on the roles of Business Manager and Treasurer.

Susan is recognised by her peers and Geography educators Australia wide as one of the longest continually active Council members in the Association's history. Susan continues to support GTANSW through her remarkable contributions to the association journal the Geography Bulletin, contributing over 20 articles since 2013 to support teachers implementing the new NSW Geography Syllabus K-10 and presenting lectures and workshops at conferences.

Susan's passion for Geography led her to travel the state on behalf of GTANSW presenting at over 50 regional and country conferences on syllabus content, geographical skills, fieldwork, programs and teaching methodology. She liaised with organisations across many scales to develop education programs and resources, present at conferences or consult. Examples include NSW Environmental Education Centres and Zoos; the Asia Educators Teachers Association, Primary Teachers Association NSW, Metropolitan Social Science Teachers Associations; Geographical Society of NSW; NGO's such as Birthing Kit Foundation and World Vision; Sydney Harbour Trust; Australian universities; the International Geography Conference (The Hague) and a United Nations resource. As an avid traveler, Susan represented GTANSW on tours to Syria, Iran, Cuba and South America to further her learning and share this through conferences and Geography Bulletin.

Susan's achievements and service have been recognised through many awards including the meritorious McDonald Holmes Medal (Geographical Society of NSW and GTANSW), Outstanding Professional Service Award (Professional Teachers Council NSW), GTANSW Fellowship for distinguished service to the Association and to Geographical Education and Geoff Conolly Award for Bulletin articles.

It is with great pleasure that the GTANSW Council awards Dr Susan Bliss with Life Membership to the Association.

Honorary Life Membership citation



NICK HUTCHINSON

Nick Hutchinson's involvement with Geography Teachers' Association of New South Wales (GTANSW) began in the 1970's and continues to this day, a period approaching 50 years. During this time Nick played a very active role as secretary for a considerable period starting in the 1980s and as president between 1999–2002 and 2011–2013. Nick is renowned for his academic and thought provoking contributions to the GTANSW journal the Geography Bulletin, helping to fulfil one of the main aims of the GTANSW in supporting the professional learning of teachers.

As a GTANSW executive member, Nick also represented NSW admirably on the Board of the Australian Geography Teachers' Association where he served as secretary from 1998 to 2001, a board director between 2000 and 2013 and chair between 2006 to 2008. Nick was a member of the ACARA Curriculum panel during the development of the Australian Curriculum Geography, a member of the GeogSpace writing team to support the new Australian Curriculum Geography and organised the AGTA Biennial Conference in New Zealand in 2015 on behalf of GTANSW and

Nick has been recognised with many awards for his contribution to geographical education through his work with both GTANSW and AGTA. Awards include the 2015 AGTA Don Biddle Friend of Geography Award; 2012 Geoff Connolly Award for meritorious contributions to the Geography Bulletin; 2009 Professional Teachers' Council NSW Outstanding Professional Service Award and in the meritorious 2003 Macdonald Holmes Medal for distinguished contribution to the field of geographical education in Australia presented by the Geographical Society of NSW and GTANSW. In 1991 Nick was awarded a Fellowship of the Geography Teachers' Association, NSW for distinguished service to the Association and to Geographical Education in Australia.

It is with great pleasure that the GTANSW Council awards Nick Hutchinson with Life Membership to the Geography Teachers' Association of NSW.



Honorary Life Membership citation



DR GRANT KLEEMAN

Dr. Grant Kleeman joined the Geography Teachers' Association of New South Wales in 1996. Amongst his colleagues and peers Grant is widely recognised as a continually active Council member in the Association and highly regarded as one of Australia's eminent geographical educators. In recognition of Dr. Kleeman's sustained and dynamic presence in geographical education he was awarded the **McDonald Holmes Medal** by the Geographical Society of NSW and GTANSW in 2007. This award is peer nominated and peer assessed, developed specifically to acknowledge ongoing and distinguished contribution to geographical education in Australia.

Grant was awarded a GTANSW Fellowship in 2009, one of the highest honors that the Geography Teachers' Association of New South Wales bestows on a member for distinguished service to the Association and to Geographical Education in Australia. He was also recognised by the NSW professional Teachers Council with the Outstanding Professional Service Award (2010) in recognition of the voluntary work undertaken for GTANSW.

Currently, Dr Kleeman holds one of the Vice-President positions as well as the role of Honorary Treasurer. He continues to expertly fulfil both these executive roles and willingly shares his knowledge in providing a range of considered, achievable solutions to guide the GTANSW Council through decision-making processes. For over a decade, Grant was Editor of the **Geography Bulletin** (the GTANSW journal), a role often completed in collaboration with his close friend and colleague Dr Susan Bliss. Grant was instrumental in bringing colour and an online presence to the journal; he would also ensure an academic input was evident to assist teachers with their professional reading requirements. During the early and mid 2000's, Grant completed two terms as President of GTANSW and with that came the responsibility of accurately representing NSW geography education perspectives at a national scale through his involvement as a Board member for the Australian Geography Teachers' Association (AGTA). Due to Grant's longevity of service as an executive member of GTANSW Council, his national role on the AGTA Board continues to this day. Grant was AGTA Chair from 2014–2017. He is now the Association's Honorary Treasurer and Immediate Past Chair.

It is with great pleasure that the GTANSW Council awards Dr. Grant Kleeman with Life Membership to the Association.

Honorary Life Membership citation



BARBARA HEATH

Barbara Heath joined the Geography Teachers' Association of NSW in 1960 and in 1971 became a member of GTANSW Council, a role she held continuously until 2013. During her time as a GTANSW councillor, Barbara was a very active member, taking on many roles. Barbara was Minutes Secretary for five years, and on the Program Committee for over 15 years in which she took responsibility for organising venues, speakers and conference activities for many teacher conferences and HSC student lectures.

Barbara was always available to support GTANSW activities organised by other councillors including the marking of fieldwork projects, the registration of delegates at conferences and workshops and HSC Review evenings. Barbara supported the relocation of the GTANSW office to several different venues over the years. Many council activities would not happen without the behind the scenes support of councillors such as Barbara.

In 1992 Barbara received a GTANSW fellowship, one of the highest honours that the Geography Teachers' Association of New South Wales bestows on a member for distinguished service to the Association and to Geographical Education in Australia.

The award of Honorary Lifetime Member is a special award that recognises distinguished service to the Geography Teachers' Association of New South Wales. The award is an acknowledgement by your colleagues of your outstanding contributions over such a long period.

It is with great pleasure that the GTANSW Council awards Barbara Heath with Life Membership to the Geography Teachers' Association of NSW



Honorary Life Membership citation



PAUL ALGER

Paul Alger has been a member of the Geography Teachers' Association of NSW for many years since his arrival in Australia in the 1970's. GTANSW membership was an important part of Paul's role as Regional Social Sciences (K–12) Consultant in the Riverina region of NSW. Paul became a GTANSW Councillor in 1996.

During this time as a GTANSW Councillor Paul held the position of Minutes Secretary for over 15 years retiring from the position in 2015 having taken hand written minutes for up to ten meetings a year over that time. Paul has given generously of his time and expertise, continuously supporting GTANSW activities such as conferences, professional learning events, the coordination and evaluation of GTANSW resources, office relocation and the marking of fieldwork projects for the Arthur Phillip Awards. It is this essential background support that enables the association to provide high quality professional learning events and syllabus support to teachers and students in NSW. Paul remains an active member of the GTANSW Council.

In recognition of the voluntary work undertaken by association committees the PTC NSW annually presents an Outstanding Professional Service Award to individual association members. Paul received this award in 2015.

The award of Honorary Life Membership is a special award that recognises distinguished service to the Geography Teachers' Association of New South Wales. The award is an acknowledgement by his colleagues for outstanding contributions over such a long period.

It is with great pleasure that the GTANSW Council awards Paul Alger with Life Membership to the Geography Teachers' Association of NSW



The 2016 Geoff Conolly Memorial Awards

This award was presented to the following recipients for meritorious contributions to the *Geography Bulletin*, Journal of the Geography Teachers' Association of NSW



Susan Caldis

Susan began her teaching career in the inner west and after five years moved to NBSC Balgowlah Boys Campus for nine years where she became Head Teacher Social Sciences. Susan joined the Australian

Curriculum, Assessment and Reporting Authority (ACARA) in September 2010 and for three years steered the *F-10 and Senior Secondary Australian Curriculum: Geography* through to Ministerial endorsement, publication and implementation. Susan returned to teaching and now focuses on tertiary education, lecturing at universities including Macquarie University in Geography Methodology. Susan has also recently completed a Masters of Educational Research, specialising in Curriculum and Pedagogy.

Susan has completed a three year term as President of the GTANSW in 2016. Susan's commitment to Geography education extends to professional learning for her colleagues. She has written extensively for the GTANSW Bulletin, particularly in 2015 and 2016. She has provided informative, thought provoking articles including ideas and information to support teachers in the implementation of the NSW Geography Syllabus. Susan is commended for her recent articles: "Fieldwork: Investigating the Quarantine Station as an important and connected place" (Volume 48, 3, 2016) "HSC Geography via Regional NSW and Central Australia and Fieldwork" (Volume 47, 1, 2015) and "Biophysical Interactions (a flipped classroom approach" (Volume 47, 3, 2015).

We are the beneficiaries of Susan's expertise, knowledge of curriculum and commitment to Geography education, Susan is a worthy recipient of the Geoff Conolly Memorial Award for 2016.



Lorraine Chaffer

Lorraine's distinguished career is exemplified by her commitment to public education and professional learning. Lorraine has taught in a variety of schools for the Department of Education where

she has held the positions of Head Teacher Social Science, Head Teacher Administration and Head Teacher Teaching and Learning. Lorraine was also invited to be a member of the NSW Consultation Committee on new Australian Curriculum re Geography in NSW.

Lorraine's commitment to Geography Education is demonstrated by her long term involvement in the Geography Teachers' Association as councilor, Vice-President and the newly elected President for 2017.

In her role as co-editor and editor of the *Geography Bulletin* Lorraine is committed to providing current, relevant and practical information for teachers and students. Lorraine's contribution to the *Geography Bulletin* has been prolific. Since 2015 Lorraine has written eleven articles covering a broad array of geographical topics. Lorraine is commended for her articles on "Fieldwork: Choosing a Valuable Site" (Volume 48, 4, 2016), "Integrating Technology in the Classroom" (Volume 47, 2, 2015) and the inspiring four part series "Canada: Beautiful, Livable but Vulnerable". (Volume 47, 4, 2015 and Volumes 48, 1 & 3, 2016).

Lorraine's outstanding contribution to education through the *Geography Bulletin* is today recognised with the Geoff Conolly Memorial award of which Lorraine is a worthy recipient.

Discover. Share. Create. Learning in your Gardens



The Blue Mountains
BOTANIC GARDEN
Mount Tomah

Place-based outdoor learning through Primary Geography lessons at The Blue Mountains Botanic Garden Mount Tomah

Children are spending less time outdoors due to urban design issues and indoor screen usage. Conversely, research overwhelmingly supports the integral role of outdoor educational experiences in a child's learning and development, especially in primary aged students. This is because outdoor learning promotes a relationship with the environment, creating an understanding of the surrounding world. Lloyd and Gray (2014) show a connection between outdoor learning and a sense of appreciation and responsibility of the environment. They demonstrate the importance of regular visitations to the same outdoor environment through place-based outdoor learning to give students the opportunity to become attached to the place. Coupled with environmental knowledge and awareness, place-based learning helps students become 'active environmental change agents.'

Place-based learning provides contexts set in the real world of children, that is, in their own locality. It allows children to connect to their local environment and to care for the community they live in. As teachers, you will be preparing children for the wider world by developing life skills as they immerse themselves with nature and share meaningful experiences with their class mates. Fieldwork, use of geographical tools and opportunities to roam create favourable memories as students reconstruct and 'own' the geography programs, deepening geographical understanding and engagement. (Dolan, 2016)

Place-based outdoor learning at The Blue Mountains Botanic Garden (BMBG) involves outdoor activities, opportunities for social development and environmental education in a local environment. The learning is open ended and child centred. Students can interact with, create and recreate these local spaces. Through the new lessons produced for each stage in Geography at BMBG, children can be pedagogical developers as they explore and discover. They can pose inquiry questions after their

explorations, develop answers to their questions and share their experiences with the class. As the learning is local, these experiences can be shared more widely with their friends, family and community.

The BMBG is an ideal location to share nature with students to engage them with plants and the environment in the world heritage listed Greater Blue Mountains. At 1000 metres above sea level, you will see vistas to Sydney while enjoying the unique cool climate plants in a diverse array of themed gardens. The place-based learning Geography lessons at BMBG have been developed in consultation with a geography syllabus expert and our team of talented and passionate Education Officers are skilled deliverers in nature pedagogy in an outdoor environment. To help with excursion planning, the risk assessment matrix provided by the Department of Education and Communities OHS Directorate 2006 is completed for easy inclusion into risk management procedures.

Geography lessons at BMBG for ES1 – S3

ES1– Mapping the Mountains

Students will engage with nature as they follow a trail using a simple map and collect natural items found on their journey. These natural items are then collated into a pictograph. This engagement with natural materials and the surroundings will help them answer key inquiry questions about the environmental features of the BMBG.

S1– Spotto Sense Scavengers

Students use their senses to explore the Garden and discover its features and uses. Textures, colours and shapes are examined through hunts to group, match and describe plants and items in the environment around them. Use of symbols to mark their discovered plants on a simple map is included in a spotto game. Data gathered during the fieldwork is recorded graphically and pictorially.

Primary Geography – Place based learning



S2– What’s About?

Students discover mapping and landscape features of the greater Blue Mountains. Looking locally at the mountains and towards Sydney, they can identify landforms and places they may recognise. These are recreated using fun methods involving natural loose parts and clay or playdough! Use of observation and maps helps students discover how the environment supports the lives of people and other living things.

S3– Jungle Jive

The concert has already started!! Find a ‘ticket’ to enter the cool temperate rainforest to uncover the delights of this natural environment. Students discover the adaptations of the rainforest plants and mark on a map where these are located, using compass points and geographical terms. They take a photo of these plants and pose environmental inquiry questions to help develop a broader appreciation for this special environment.

These lessons not only address outcomes from the geography syllabus, they use geographical concepts, tools and information. As the students participate in fieldwork and use natural materials, ideas about place will be gained to help connect children when back at school, so sustaining their engagement. Skills, knowledge and attitudes related to the subject matter of nature pedagogy will be experienced, enabling teachers to introduce students to the outdoor classroom of the school grounds or local parks.

Teachers can develop environmental strategies to increase your students’ connectedness by

attending our teacher professional development afternoon at BMBG on May 3, 2017. <https://www.bluemountainsbotanicgarden.com.au/Learn/Events/Teacher-Preview-Blue-Mountains>

For more information about these lessons, our immersive twilight and sleepover experiences and to book a learning experience visit our website – <https://www.bluemountainsbotanicgarden.com.au/Learn/Primary-School-Excursions>

References

- Dolan, A (2016) Place-based curriculum making: devising a synthesis between primary geography and outdoor learning. *Journal of Adventure Education and Outdoor Learning*, 16:1, 49-62, <http://dx.doi.org/10.1080/14729679.2015.1051563>
- Lloyd, A. & Gray, T. (2014). Place-based outdoor learning and environmental sustainability within Australian primary school. *The Journal of Sustainability Education*. http://www.jsedimensions.org/wordpress/content/place-based-outdoor-learning-and-environmental-sustainability-within-australian-primary-school_2014_10/



Dr Susan Bliss
GeoWorld 7–10, Macmillan



A PICTURE IS WORTH A
THOUSAND WORDS.

PictureQuotes.com

Image <http://img.picturequotes.com/2/5/4317/a-picture-is-worth-a-thousand-words-quote-1.jpg>


GEOGRAPHICAL TOOLS VISUAL REPRESENTATIONS

- Students live in a world of visual images- TV, video games, advertisements, photographs.
- 90% of information that comes to brain is **VISUAL**
- 80% of people are visual learners
- visual information is 6,000 x faster to process and easier to understand, remember and recall
- **Current educational research:**
 - 'expanded Visual Literacy (Representations) to match reality of today'
 - 'VL is overtaking print and text'
 - 'Geography textbooks lacking VL are not addressing 21st century education.... should average 50% of content on double page.'
- **Infographics, satellite images, 3D diagrams, interactive websites, Web 2.0 tools**



Image <https://s-media-cache-ak0.pinimg.com/originals/71/6c/ea/716cea5860454587393652413fe37267.jpg>

GEOGRAPHICAL TOOLS-VL



CURRICULUM VISUAL REPRESENTATIONS

End of Year 6 (ACARA)

- 'explain how analytical images such as figures, diagrams, tables, maps and graphs contribute to understanding of factual information in texts'


End of Year 8 (ACARA)

- 'analyse the effects of different visual elements upon the reader/viewer, and how visual texts such as advertisements and informative texts draw on other texts to enhance meaning'

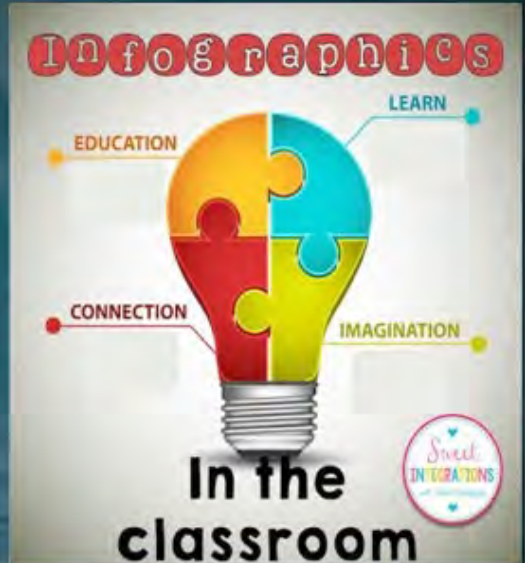
Image: http://vanuscreations.com/wp-content/uploads/2013/11/a_picture_is_worth_1000_words_by_refrigeratorbingo-d465awb-785x490.jpg

GEOGRAPHICAL TOOLS-ICT

- **Infographics**
 - visual representation of geographical data
 - useful tools to represent geographical information in a compact way
 - thousands on geography topics on web
 - diagram or chart can display/replace large amounts of written data (heavy text for poorer students)
 - different styles and visualisations maps, graphs, tables, cartoons, photos
- Students in primary school are designing infographics
- Textbooks must keep up to date with current educational research



Images: <https://www.dreamstime.com/photos-images/infographics-design-template.html>



BENEFITS OF USING INFOGRAPHICS IN CLASS

We are inclined to "snackable" content- Twitter, vines, snapchats, haikus, memes.

Infographics combine images, colours, movement, and present content that catches our attention.

Using infographics allows students to broadly scan information before reading material in more detail.

Refer to Google Images for inspiration

Image: <http://3.bp.blogspot.com/-nhnlgBQ5dVA/VjKYStafnBI/AAAAAAAAAESg/twKML7m0j2A/s1600/Slide1.jpg>

Create infographics using information, visual and technology literacies
Infographics as a creative assessment

Infographics as a creative assessment

<http://www.schrockguide.net/infographics-as-an-assessment.html>

Create your own infographic

<https://magic.piktochart.com/output/4566561-creating-infographics>

Turn Infographics into effective teaching tools
<http://www.scribbellive.com/blog/2013/09/25/how-to-turn-Infographics-into-effective-teaching-tools/>

Easy to use

<http://commons.grd.msu.edu/index.php>

Teaching with Infographics

Guidelines for classroom integration

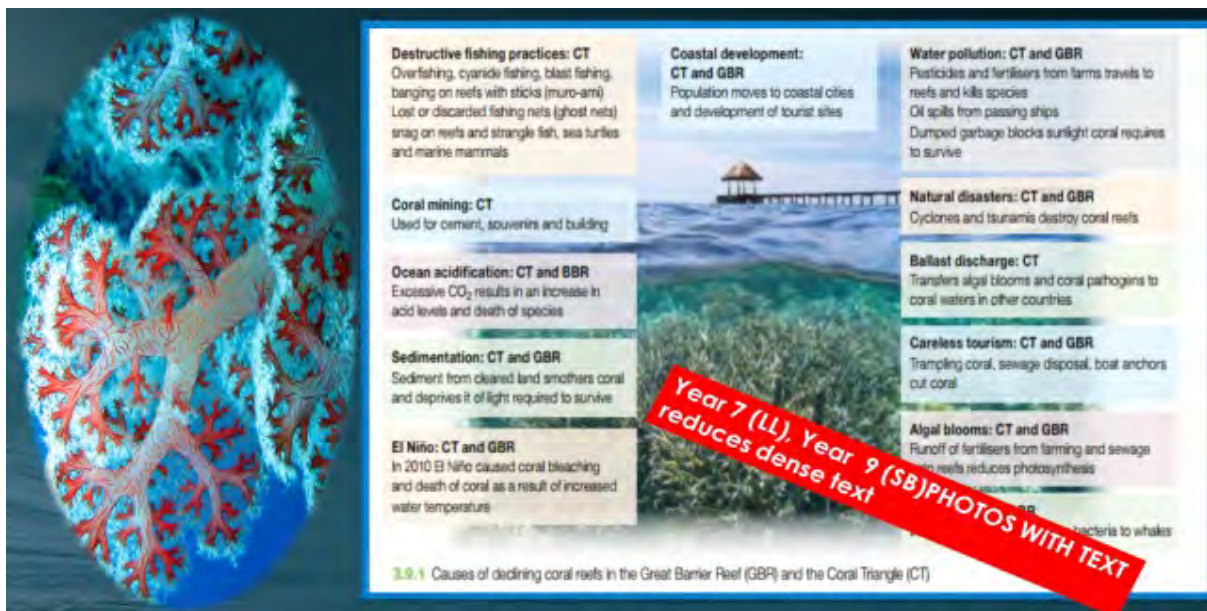
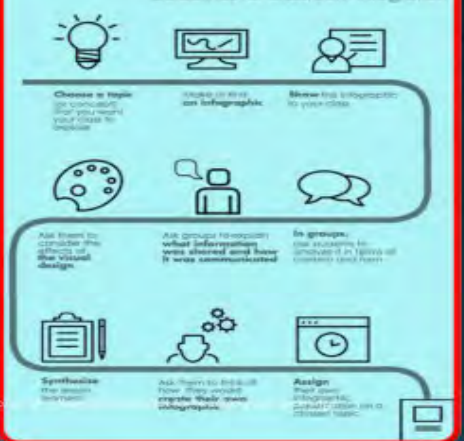


Image: GeoWorld 7-10, Macmillan

VISUAL LITERACY: DIFFERENT DIAGRAMS

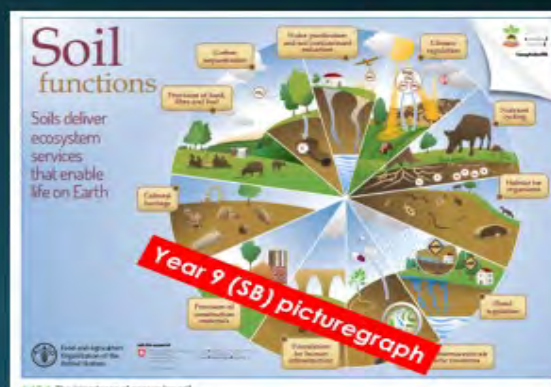


Image: GeoWorld 7-10, Macmillan

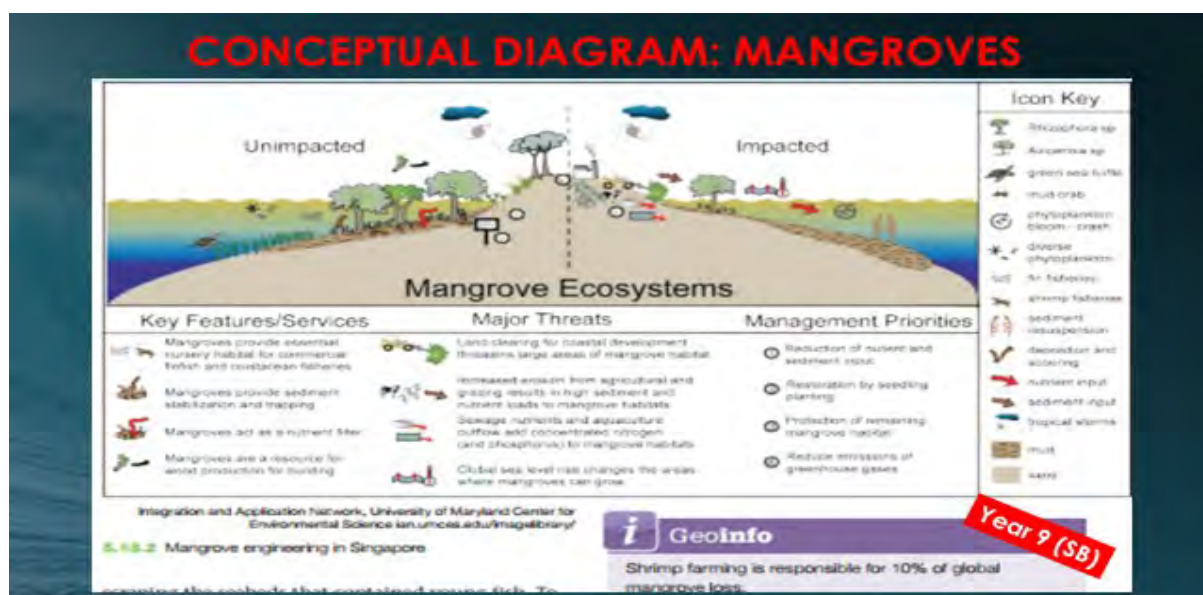


Image: GeoWorld 7-10, Macmillan

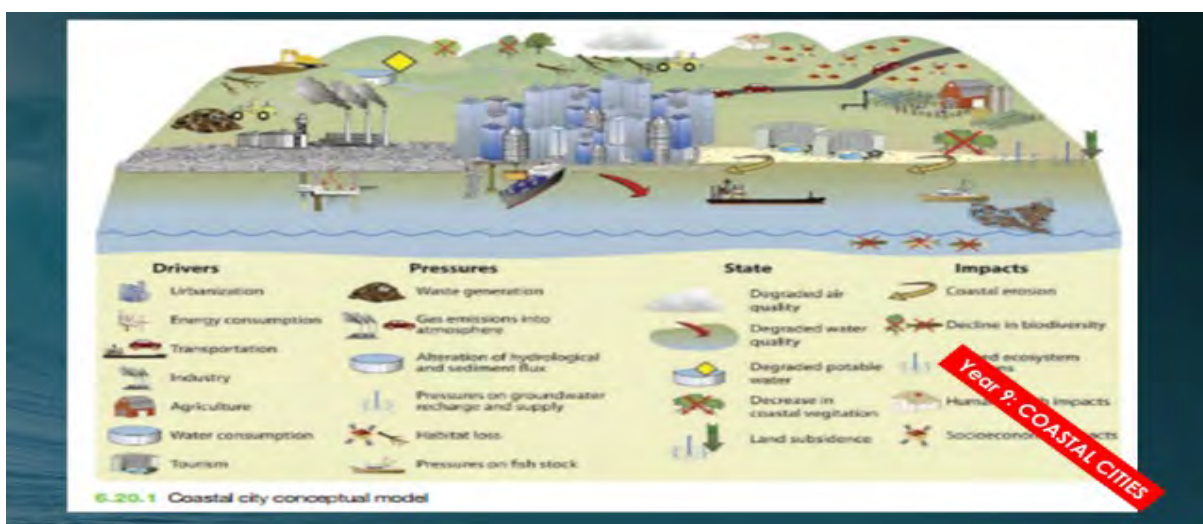


Image: GeoWorld 7-10, Macmillan

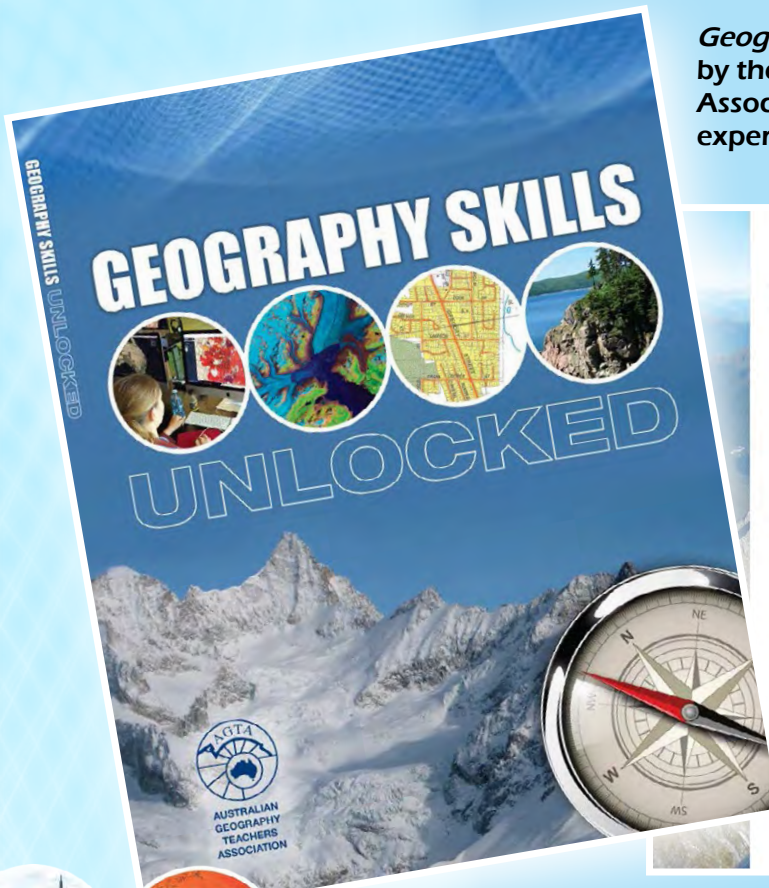


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AGTA ANNOUNCES AN ESSENTIAL NEW GEOGRAPHY RESOURCE

Geography Skills Unlocked is an exciting new skills book for Australian secondary schools

Geography Skills Unlocked is published by the Australian Geography Teachers Association and written by a team of experienced Geography teachers.



Contents

Preface

1 Inquiring, questioning, investigating

Inquiring
Investigating in geography
What kinds of inquiries do geographers make?
The links between inquiry and skills

2 Geographic inquiry – the stages

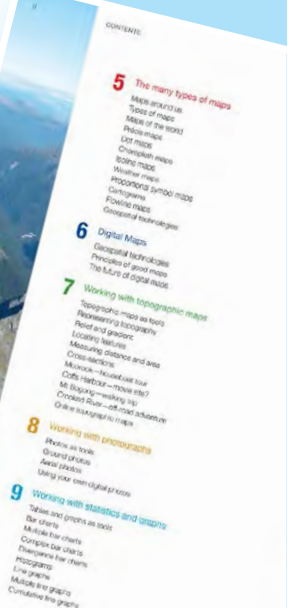
Observing, questioning and planning
Collecting, recording, evaluating and representing
Interpreting, analysing and concluding
Communicating
Reflecting and responding
Organising data in an inquiry
Mind mapping
Concept diagrams

3 Thinking Skills

A list of thinking skills
A classification of skills
A hierarchy of thinking skills
Creative thinking
Future thinking
Thinking skills in inquiry

4 The elements of maps

Map symbols
Direction and bearings
Scale
Distance
Locating features with grid coordinates
Latitude and longitude
Time zones



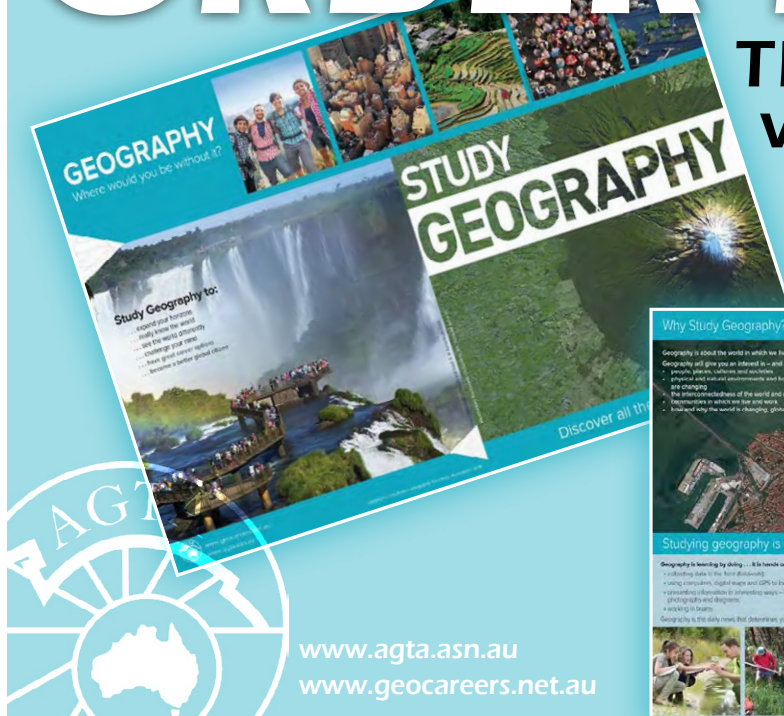
KEY FEATURES:

- ➔ Contents aligned to the inquiry and skills-based requirements of *Australian Curriculum: Geography*
- ➔ An engaging, easy to navigate design
- ➔ A student friendly approach with step-by-step explanations, descriptions and worked examples
- ➔ A focus on emerging technologies used to gather, analyse and present geographical data
- ➔ *GeoSkills* and *GeoInquiry* activities that scaffold student learning
- ➔ A wealth of stimulus material including a diverse range of maps, graphs, aerial photographs, satellite images, diagrams and photographs
- ➔ Examples drawn from each Australian state and territory with additional international material
- ➔ Key terms explained in embedded glossary boxes

Geography Skills Unlocked will be published mid 2016 and will be available for purchase via the AGTA website: www.agta.asn.au/Products

ORDER FORM

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Cardholder Name			
Signature			

ADVICE TO CONTRIBUTORS

Editorial policy attempts to:

- promote material which will assist the study and teaching of geography
- encourage teachers to share their ideas on teaching geography
- provide a means by which teachers can publish articles
- inform readers of developments in geographical education

Articles are sought reflecting research and innovations in teaching practices in schools. From time to time issues of the Bulletin address specific themes.

Refereeing

All suitable manuscripts submitted to the Geography Bulletin are subject to the process of review. The authors and contributors alone are responsible for the opinions expressed in their articles and while reasonable checks are made to ensure the accuracy of all statements, neither the editor nor the Geography Teachers' Association of New South Wales Inc accepts responsibility for statements or opinions expressed herein.

Books for review should be sent to:

The GTA NSW Council
PO Box 699
Lidcombe NSW 1825

Editions

There are four bulletins each year – two published each semester.

Notice to Advertisers

'Geography Bulletin' welcomes advertisements concerning publications, resources, workshops, etc. relevant to geography education.

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1. **Objective:** The Geography Bulletin is the quarterly journal of the New South Wales Geography Teachers' Association, Inc. The role of the Geography Bulletin is to disseminate up-to-date geographical information and to widen access to new geographic teaching ideas and methods. Articles of interest to teachers and students of geography in both secondary and tertiary institutions are invited, and contributions of factually correct, informed analyses, and case studies suitable for use in secondary schools are particularly welcomed.
2. **Content:** Articles, not normally exceeding 5000 words (no minimum specification), should be submitted to the GTANSW Office gta.admin@ptc.nsw.edu.au or by mail to: . **PO Box 699, Lidcombe, NSW 1825** who will forward to the editor: Submissions can also be sent directly to the editor: Lorraine Chaffer (lchaffer@tpg.com.au)
Articles are welcomed from tertiary and secondary teachers, students, business and government representatives. Articles may also be solicited from time to time. Articles submitted will be evaluated according to their ability to meet the objectives outlined above.
3. **Format:** Digital submission in Word format. Tables should be on separate pages, one per page, and figures should be clearly drawn, one per page, in black on opaque paper suitable for reproduction. Photographs should be in high resolution digital format. An indication should be given in the text of approximate location of tables, figures and photographs. Every illustration needs a caption. Photographs, tables and illustrations sourced from the internet must acknowledge the source and have a URL link to the original context.
4. **Title:** The title should be short, yet clear and descriptive. The author's name should appear in full, together with a full title of position held and location of employment.
5. **Covering Letter:** As email with submitted articles. If the manuscript has been submitted to another journal, this should be stated clearly.
6. **Photo of Contributor:** Contributors may enclose a passport-type photograph and a brief biographical statement as part of their article.
7. **References:** References should follow the conventional author-date format:
Abbott, B. K. (1980) *The Historical and Geographical Development of Muswellbrook* Newcastle: Hunter Valley Press.
Harrison, T. L. (1973a) *Railway to Jugiong* Adelaide: The Rosebud Press. (2nd Ed.)
Harrison, T. L. (1973b) The Spatial Distribution of Macadamia Plantations on the Far North Coast of New South Wales, *Journal of Rural and Agricultural Problems*, 13, 4, Oct. pp. 347–359.
O'Donovan, M. J., *et. al.* (1980) "Animal life in the North Star District of New South Wales". In W.W. Murphy, (Ed.) *Readings in Regional Geography (Vol. 2)*, Sydney: Williams and Sons.
8. **Spelling** should follow the Macquarie Dictionary, and Australian place names should follow the Geographical Place Names Board for the appropriate state.



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