A hollow is a home
By Abbie Mitchell (Astred Hicks, Illustrator). CSIRO Publishing, 2019,
104 pages, soft cover, ISBN 9781486308057
https://www.publish.csiro.au

A hollow is a home is an excellent addition to the primary classroom reference library. It explores why tree hollows are the home for more than 340 Australian species including birds, frogs, bats, possums, gliders, rodents, snakes, small and large lizards and invertebrates, as well as thousands of other reptiles, mammals and amphibians and birds around the world.

The book contains detailed information about this vital habitat, how it forms and the array of creatures who depend on this particular home, as well as the natural and human-induced threats to this habitat type. Mitchell also explores the science of monitoring biodiversity, how to observe and predict which trees contain hollows and what creatures may live in them, with practical tips for increasing the number of hollows within the local neighbourhood.

The colourful layout and varied use of illustrations, photographs, diagrams and maps will appeal to the target audience in Years 3 to 6. Detailed Creature feature profiles of Australian fauna, and a section highlighting hollow-dependent species from around the world, will engage all animal lovers. At times, frequent background colour changes and the Creature feature profiles can make it difficult to follow the chapter narrative. The book presents and explains relevant scientific concepts in an accessible way, including a glossary of key terms.

While primarily framed through a science lens and linking closely to the biological sciences and Science as a Human Endeavour curriculum, the book also addresses geographical concepts such as characteristics of place, space (especially distributions and habitat connectivity), environment, interconnection and sustainability. Students will also draw on geographical skills when interpreting distribution maps and diagrams. Detailed teacher notes, available from the above website, contain lesson ideas targeting the Years 3 to 6 Science, Mathematics, English and HASS Geography curriculum, which could easily be modified to form a cross-disciplinary sustainability investigation.

A hollow is a home will help children develop a sense of wonder and respect about tree hollows, as well as stimulate their curiosity about the creatures that depend on them and the ways that human actions can affect them. Its visually appealing style and comprehensive nature makes it eminently suitable as a primary classroom reference.

Dr Lucy Robertson
The University of Melbourne, Victoria

A water story: Learning from the past, planning for the future
By Geoff Beeson. CSIRO Publishing, 2020,
289 pages, soft cover, ISBN 9781486311293
https://www.publish.csiro.au

A water story is an exemplary publication demonstrating the inclusion of all of Australia’s 60-thousand-year history of people.

We are all aware that access to fresh water is a significant worldwide issue. Indeed, Australia has its own challenges as the driest inhabited continent.

This well-written, authoritative publication describes the evolving use of Australia’s water resources and its impact on the natural and social environment over the past 60,000-plus years.

Each of the 17 chapter covers one topic although it is possible to read a chapter of interest without reading the preceding chapters.

The first six chapters cover early water use. There is a nice summary of early civilisations moving water to grow crops and later to cities. We find out about Aboriginal water use and the resources and cultural connections they provide. There is a chapter on the basics of climate and the water cycle. The
chapters on colonialism explain the many challenges new arrivals had and how it impacted on First Nations people.

Chapters 7 to 16 explore topics including groundwater and Australia’s enormous artesian basins, the Murray Darling Basin, irrigation, water for cities, changing policies, changing management programs and the many conflicting issues policymakers try successfully or unsuccessfully to navigate. Chapter 16 explains urban water projects. Where relevant, the Aboriginal story is included. The final chapters discuss potential future solutions.

This type of in-depth, unbiased, but critical material about Australia’s water resources cannot be found on the internet. It is all here in this one publication.

However, A water story does not have a chapter about the impact of climate change nor the issues generated by increasing evaporation rates. There are only a few fleeting sentences about climate change in the book. You will need to find additional references to make this book complete.

This book has an excellent index, glossary and extensive references for each chapter.

A water story is relevant to Geography and environmental teachers investigating water resources and issues. The index makes it very easy to find what you need and pull out engaging stories for your students. Australian history teachers will find this book provides a more complete approach to our 60,000 years of history.

It will help update all geography teachers. Year 7 teachers, teaching Water in the World and Year 9 Food Security, can extract relevant information and stories for their students. Years 9 and 10 students can use the index to locate information they need to answer their investigation question.

I would highly recommend this book as it will bring the reader up to date with water resources in Australia. However, teachers will probably want to know more about the impact of climate change.

Bob Winters
Environmental Curriculum Writer, Author and Photographer
Melbourne, Victoria

Geography education’s potential and the capability approach: GeoCapabilities and schools.

By Richard Bustin. Palgrave Macmillan, 2019,


As I write this review, reports of gas bubbling to the sea surface in Siberia raise questions about melting permafrost releasing methane – a potent greenhouse gas (Osborne, 2019). What do geography students need to know to understand this? Relevant facts include Siberian location, climate, nature of permafrost, reasons for its thawing beneath the ocean, and is this a normal occurrence. In addition, the nature of methane and its contribution to climate change is relevant to this understanding.

How to teach this in ways that matter to young people is forefront in my mind as I turn to review this book which interrogates the role, purpose and value of Geography as a school subject in education. It is drawn from the author’s doctoral study and is aimed at an academic audience.

The book starts with Young and Muller’s (2010) three futures or curriculum scenarios – F1, F2 and F3. Future 1 takes knowledge as given, facts to be imparted. Future 2 views knowledge that is drawn on is flexible as the purpose of schooling is driven by the experiences and everyday lives of the learners themselves while the teacher’s role is to facilitate learning. Future 3 presents a deeper challenge by asking what curriculum can foster the development of powerful knowledge.

The concept of powerful knowledge is aligned with disciplinary knowledge or specialist, formal knowledge and it must consider knowledge of, knowledge of how to, and knowledge of so what. So, for geographers in the above context, it is knowledge of the features and processes of the Arctic, knowledge of how people measure this, and understanding what is discovered, that is powerful as it enables us to understand and influence climate change. Geographers use key concepts including place, space, interconnection, scale and environment to develop powerful knowledge.

This volume reports on research on the Geocapabilities Project (Solem, Lambert, & Tani, 2013; Geocapabilities, www.geocapabilities.org). Geocapabilities seeks to promote a Future 3 curriculum thinking that builds powerful knowledge. Bustin’s research shows that developing F3 curriculum makes challenging demands on teachers as they need to deeply engage with the subject, its knowledge construction, and how this can be brought to life in the classroom to develop sophisticated pedagogic practices to foster powerful knowledge.

This book asks the reader to think about the aims of schools, the relative importance of knowledge and skills, what happens when teachers are not subject specialists, and the potential of school geography through the capabilities approach. It draws out a fascinating account of how Geography is conceived as an academic discipline and a school subject. It makes a significant contribution to explain the development of Geocapabilities and concludes by offering a vision for both a school and a geography curriculum that promotes powerful knowledge and acknowledges the practical challenges that need to be addressed to achieve this vision.

The book provides curriculum perspectives mainly from England, supplemented by the United States and Finland, and these parallels and contrasts enable the reader to consider their own curriculum. It is an impressively theorised exploration that will be of interest to leading teachers, researchers and academics in the field of geography education and curriculum studies.
Leaving the final eloquent summation to the author, Bustin argues that ‘what the capabilities approach does enable is a means for teachers to realise the academic potential of their subjects. By focussing on the powerful knowledge of their subjects, young people from all backgrounds can develop capabilities to think about the world and make positive choices about how to live. This has the potential to envisage a world class education’ (p.188). Here, here.

Dr Jeana Kriewaldt
The University of Melbourne, Victoria

References


Geospatial technologies in geography education.

Edited by Rafael De Miguel, Karl Donert, and Karl Koutsopoulos. Springer, 2019,

219 pages, soft cover, ISBN 9783030177850

Geospatial technologies in geography education is part of the Key Challenges in Geography initiative of the European Association of Geographers. The book is a compilation of 12 scholarly articles by different authors, grouped together in three parts: Part 1, Spatial thinking and Web-GIS; Part 2, Geospatial technologies for education in non-formal contexts; and Part 3, Geospatial technologies for education: practices and case studies.

This book is academic reading for someone who is interested in a more philosophical consideration of the value of geospatial technologies in geography education. It is written by a range of predominantly European authors and therefore provides a global perspective to the Australian reader. It is not specific to a particular region or curriculum level and, although there are many examples of resources and teaching practices referenced, I don’t think this text was designed as a practical teaching resource.

Since each article has different authors, the chapters in this book vary greatly. Aside from the themes given by the book’s title and sections, I didn’t see a strong thread between each piece. Being a bit rusty on my academic reading, I found the formal style of European scholarly writing heavy going to read, and in some of the more philosophical pieces the discussion became esoteric. The most accessible article was the opening paper on ‘Infusing educational practice with Web GIS’ by Joseph J. Kerski and Thomas R. Baker. They introduce Web GIS and bring the reader up-to-date with the current scene.

There were some thought-provoking moments in reading this book and I have noted a few new ideas that I would like to investigate further. Chapter 5 outlines the creation of the Youthmetre project which uses a GIS platform and open data to empower young people to engage in democracy. Chapter 3 provides an interesting discussion on the ‘learning lines’ of spatial thinking with a table looking at how skills in spatial technologies are developed with increasing complexity over senior school years. Chapter 9 describes a study that showed how using the computer game Minecraft increased student engagement. Finally, chapter 10 discusses how, with the right ‘technological pedagogical content knowledge (TPACK)’, geography teachers can enable students with powerful knowledge, rather than just skills.

The third section of this book contains four case studies. They are not, however, all readily applicable to Australian classrooms and are not presented with the aim to provide an exemplar to copy. For a teacher who is interested in expanding their use of geospatial technologies, I would recommend looking for other resources or training that focus on practical classroom strategies and implementation.

My personal preference is to investigate new GIS software or platforms through a hands-on approach and learn ‘on the job’. In the meantime, this book has reaffirmed my belief that Geography has a critical role in equipping students with skills and knowledge in geospatial technologies that can inform sustainable decision-making now and into the future.

Julian Woolhouse
Ivanhoe Girls’ Grammar School, Victoria

Leading primary geography: The essential handbook for all teachers.

Edited by Tessa Willy. Geographical Association, 2019,

167 pages, soft cover, ISBN 9781843774501
https://www.geography.org.uk/

When thinking about the importance of learning geography, Michal Palin’s (2018) words spring to mind:

Geography is no longer just something which you learn from a book and a map and that’s it . . . [Geography] helps us to understand how other countries are the way they are, and this is really very important in just helping
us to realise that we all share the same planet and we should know more about what makes us different as well as what makes us similar.

Leading primary geography is a teacher reference book which aims to assist primary teachers to move beyond teaching Geography with only maps and books. It provides fresh and insightful resources designed to inspire teachers and their students. In this way, the book affirms the purpose of teaching Geography with passion and rigour. It is a book that will both reinvigorate experienced teachers and provide accessible explanations of key concepts for novice teachers.

The book is divided into the following seven sections – Introduction (Section 1), Key concepts (Section 2), Key skills (Section 3), Teaching approaches (Section 4), Geography in your curriculum (Section 5), Integrating geography (Section 6) and Effective subject leadership (Section 7). All sections have been written by contributors with years of experience in the geographer and geography education space.

Leading primary geography is written with reference to the United Kingdom education system, but its audience is not limited to UK teachers. This is because it is not a book of what to teach but rather a structured outline of key ideas about how to approach teaching and learning Geography.

The book provides useful background theory, questions to ask when planning your own units of work, and creative tips. For example, in the Key concepts (Section 2) there is information about the use of maps. There are clear theoretical explanations of how maps expand young learners’ sense of the world, and there are creative tips on how to use such children’s stories as the picture book Meerkat mail to stimulate learner interest and purpose.

Leading primary geography will be a useful companion text if your school is using pre-made lesson resources (such as those available from the AGTA’s Primary Geography Alive web resource). It is an essential text if your school is looking to improve and promote its geography teaching and learning.

Caroline Heath
Elsternwick, Victoria

Reference

Making every lesson count: Six principles to support great geography teaching.

138 pages, soft cover, ISBN 9781785833397
https://www.crownhouse.co.uk/

This book is a pedagogical resource aimed at Geography teachers of students aged 11–18 years. It is written by a geography teacher for geography teachers, in a series of subject-specific books based on the original Making every lesson count by Shaun Allison and Andy Tharby. It is written for the General Certificate of Secondary Education curriculum in the United Kingdom but it is easy to realise the similarities with the Australian Curriculum, and the principles of teaching, according to this book, are applicable anyway. In fact, it is even a little inspiring to read due to the strength and depth of the Geography taught in the UK.

Mark Enser aims to equip teachers to ensure that each lesson ‘leads to students learning more, understanding the world better and developing their geographical skills’ (p. 127). The book is organised into chapters according to six simple pedagogical principles – challenge, explanation, modelling, practice, feedback and questioning. Each chapter contains key strategies and techniques associated with implementing these principles; teacher/student case studies, examples, and everyday analogies demonstrate how the principles can shape classroom teaching and learning.

The appeal of the book is that it is very much bite-sized (small). Also, the ‘geographer’s voice’ of the author is strong and will resonate with many passionate geography teachers. Whilst some of the principles, such as modelling, are not particularly new, it is certainly appealing to read such short, sharp explanations with tangible examples. It is easy to make the connections between pedagogical theory and real-life practice of teaching geographical content, concepts and skills.

This book very much emphasises the expert role of the teacher as curriculum planner and its deliverer. This places the sequencing of the curriculum from start to end at the forefront and ensures that students have opportunity to achieve excellence and learn geographical ways of thinking. It is interesting to read about Mark’s perspectives on how to continue to develop expertise in a teaching team. At times perhaps, there were too many steps or strategies but ultimately there is no shortage of things to implement straight away. It is surprising that there is not much mention of fieldwork given its essential place in the discipline of Geography.

This book has a broad audience. To an experienced teacher and a geography specialist, this book is both affirming and inspiring. For some, it might encourage reconsidering what high quality teaching in Geography should and could look like. It would make an excellent read for pre-service and graduate teachers by providing guidance in those early years spent trying to build connections between university learning and theory and the little practical experience offered before stepping into a classroom as a graduate teacher. The case studies and very specific geography examples are powerful and could perhaps lend much needed insight and, hopefully inspiration, to non-geography-specialist teachers.

Karoline Walter
Head of Geography
Camberwell Girls Grammar School, Victoria
Mallee country offers excellent insights into the long history of people living in the Mallee. It is organised into four parts (time periods) over 13 chapters. Its early chapters tell the forgotten histories and cultures of First Nations peoples living in Mallee country. Whilst in later chapters, it discusses the challenges faced by Mallee settlers up to modern times when people have been aiming to preserve the Mallee.

The prologue in particular paints a vivid image of the harsh yet beautiful land that is the Mallee and all the resilient plants, animals and people living there. It is an excellent orientation to the geographic climate and landscape before the reader is introduced to the people who have lived in the Mallee.

Mallee country is a wonderful teaching resource for Victorian Years 7 and 8 geography teachers who are teaching students about the impact of humans on the natural environment and also how annual rainfall impacts the availability of water to communities. Many of the chapters are written in a storytelling style that makes it easy to read, and accessible for students to read in small chunks in class. The inclusion of maps of the areas described, and relevant photos of settlers and First Nations people, usefully orientate students to the areas and people discussed in the book.

Chapter 2 provides detailed accounts of the struggle for First Nations people and early explorers to find water. It makes reference to an account by explorer Alexander Magarey who describes First Nation people's ingenuity of harvesting water from ‘water trees’ (p. 43) in the absence of water bodies in dry areas.

This book also has useful accounts to teach students about the deep spiritual connection that First Nations people have with the land where ‘each landform had a name and a story’ (p. 18), and how they performed certain rituals and dances to their country and the Great Ancestors. It also describes how First Nations people used their knowledge of the land to manipulate the flora and fauna around them as needed.

Chapter 7 in particular would be useful to teach students about the settler impact on the environment. It discusses how clearing the land for agriculture changed the natural landscape and liveability for the fauna living there and brought new problems such as locust plagues.

This book is also an excellent teaching resource for Victorian history teachers with Part 1 in particular offering excellent accounts of the people living in Lake Mungo, and includes the Rufus River incident.

As someone who has grown up in the Mildura area, this book struck a personal chord with me as there are not many books that tell the history of the Mallee country in a culturally inclusive way. Mallee country tells the history of the Mallee in an engaging and relatable way that was very enjoyable to read. As a teacher, I can’t wait to use some of these accounts in the classroom.

Rachel Slade
Irymple Secondary College, Victoria
for the Australian context as they relate to geographical concepts rather than explicitly to the curriculum, although these links are identified.

Geography as a practical activity in Chapter 4 is very closely aligned with the UK Key Stages. However, there is a broad discussion about what constitutes outdoor learning and the link to geography, as well as the emergence of trends such as Forest Schools. A list of organisations and their web addresses may provide some inspiration for exploring the link between outdoor learning and Geography. The chapter also lists things to look for when exploring the outdoors with both urban and natural features considered.

Chapter 5 discusses geospatial enquiry with an ‘overarching set of questions for enquiry’. With its focus on Place, it is applicable to both Australian primary curriculum and to all geography teaching. A useful table unpacks such key questions as: What is this place like? Why is this place like this? How is this place connected to other places? How is this place changing? and What would it feel like to live in this place? The two models for enquiry presented are not dissimilar to the inquiry and skills evident in the Australian Curriculum.

The final chapter, entitled Children’s Ideas: Promoting Curiosity, is dedicated to practical ideas that expand student thinking about places beyond their personal geographies. The Pause for Thought boxes encourage teachers to consider their own perspectives about distant places before embarking on teaching the idea to students. The ideas for teaching are still focussed on real places and people, like all good geography teaching, and ways of connecting students to the unfamiliar with a focus on virtual travel, famous places and landmarks.

Generally, with some thought about making the ideas and activities relevant to the Australian Curriculum, there is scope for this text to be useful in the Australian context. The theory behind the strategies provides a useful basis for pre-service teachers’ research and, for practising teachers, the lists of ideas are good reminders of approaches to teaching primary Geography.

Julie Davis
President, Geography Teachers’ Association of Queensland

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**Powerful primary geography. A toolkit for 21st-century learning.**


[https://www.routledge.com/](https://www.routledge.com/)

*Powerful primary geography* is a very valuable resource for every primary school teacher. In this book, the author, a university lecturer in Ireland, describes and illustrates the concept of powerful primary Geography and provides recommendations to teachers for teaching Geography in a very meaningful way.

This book also reminds us why the teaching of Geography is so important for our learners, particularly in a world where the skills of curiosity, imagination, creativity, problem-solving and flexibility are prerequisites. The reality of an overloaded curriculum is acknowledged and suggestions for including the teaching of Geography, in a holistic manner, are offered. This book is based on the latest research into student learning.

The text is presented in eight chapters which focus on distinct areas of powerful Geography teaching in the primary school. These are: setting the scene; thinking: initiating investigations and enquiry-based learning; teaching through place; playful approaches: using games, artefacts and fun; teaching through topics: weather and climate change; teaching through graphicacy, map work and visual literacy; teaching through the arts; and teaching citizenship, global learning and sustainability development goals. After reading the first chapter, the reader can dip in and out of the resource and focus on areas that are of interest to them. This assists in immediately engaging with this book.

Throughout the book, the author provides case studies, illustrations, photos, exercises and further resources for educators to reference and use. The exercises, which are aimed at the teacher, provide the opportunity for reflection on their own experiences and the chance to participate in activities being asked of their students. These could easily be used to plan a professional learning experience for teams of teachers. It is disappointing that the illustrations in this reference book are not of a good, clear quality as they are important in learning more about the case studies being presented.

Practical, hands-on tasks are provided continually throughout this book. Reflections and feedback from students are also incorporated into each chapter. While this book is based on experiences of primary school students in Ireland, the strategies are very easily translated into the Australian context.

Student voice and agency are referenced and promoted throughout this text. The approach of powerful Geography is to fully engage students in their learning through a process of collaborative learning where concepts are examined, showcased and debated. Student agency is promoted through the use of well-designed action projects.

This text is overall a very useful reference for the teaching of geography in the primary school setting. It provides a wealth of interesting ideas and also highlights how important it is to engage and inspire our young students in the world around them, which will become even more important with the new age of the global pandemic.

Sue Young
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Songspirals: Sharing women’s wisdom of Country through songlines.

By Gay’Wu Group of Women. Allen & Unwin, 2019,
336 pages, soft cover, ISBN 9781760633219
https://www.allenandunwin.com/

This Stella Prize-nominated book, based in Arnhem Land, Northern Territory, is a love letter from the Yolngu lifeworld to share with us the songspirals that ‘sing the actual land and sea’ (p. 6).

Songspirals ‘cycle out like the generations, like the family connection and kinship relationships that bind us all together, as Yolŋu with Country’ (p. 79). They are the ways of knowing a Yolŋu life. Geography scholarship, then, enters another realm of potential, as we become the recipients of songspiral learning with this book of beautiful im/possibilities from the collective authorship of the Gay’Wu women. These women, the mothers and daughters of Yolŋu and their kin, take us on a journey that encompasses the fields we know of as linguistics, mathematics, philosophy, law, geography and history and makes them a whole, through songspirals, to gift us a world of connections to place and each other.

Pages in Songspirals tremble with the weight of importance given to song and thus, the reader experience is transformed by the full senses of being engaged in finding an interior pitch and tone to match the heady words. ‘When we sing, everything exists’ (p. 177), the Gay’Wu women write, and the terror is real in knowing that the ‘songspirals can be destroyed. If Yolŋu all die, then the land dies with us’ (p. 197). Songspirals, then, is a potent and loving declaration of social justice: ‘This is Yolŋu, it belongs here. It is not yours to take away. We have songspirals, they are strong, our culture is strong, everything is strong’ (p. 146).

The art and craft of mapping is turned on its head when we understand that Yolŋu sing points of connection. Mapping becomes an exercise of more than three dimensions when it is sung; this gives rise to seemingly impossible worlds of multiple dimensions that include the spiritual and emotional as connective tissue to the tangible. But they are not unimaginable, as Songspirals’ complex and densely layered scholarship reveals their Yolŋu methodologies to us: ‘Songspirals are a university for us. They are a map of understandings. We have to learn how to walk on the land (p. 33)’. Thus, Yolŋu maps begin with centring kinship, the ‘pattern, the string, the raki, that binds us . . . [and] that places us in a network of relationships, of obligation and of care. It is our map’ (p. 81).

Family, Country and love connect the wisdom of the Gay’Wu women. Love underpins Songspirals and is the core to understanding Yolŋu ways of seeing geography – without love the maps cannot be sung and imbued with meaning – and is everywhere. Love ‘emerged and emerges, wherever we are, whatever we do. It spirals out and round, in our connection with each other and the land’ (p. 99). In showing and mapping and singing love through songspiral scholarship, the Gay’Wu women challenge the academy’s rational, objective and observer foundations that has caused great harms to Indigenous peoples.

Songspirals is an antidote that is unashamedly premised upon Yolŋu learning and with uncompromising female agency and power in the telling. It is now up to us to recognise that Songspirals has changed the landscape and language of Geography and for the better.

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Superpower: Australia’s low-carbon opportunity.

By Ross Garnaut. La Trobe University Press, 2019,
224 pages, soft cover, ISBN 9781760642099
https://www.blackincbooks.com.au

In his latest book, Ross Garnaut, Australia’s best-known economist, paints an optimistic picture of Australia’s future in an era of climate change anxiety and uncertainty. Building on his detailed reports to the federal government in 2008 and 2011, Garnaut gives a compelling argument that Australia can still lead the way to a 100% renewable energy future. According to Garnaut, the substantial and significant decreases in wholesale grid and electricity prices in the past decade gives Australia the unique opportunity and potential to flourish economically.

Garnaut presents this optimistic picture despite Australia’s current political policies and missed opportunities of the past, such as the emissions trading scheme and carbon tax. He puts forward a number of recommendations Australia needs to follow in order to achieve prosperity and success and includes detailed proposals for transforming the structure of the Australia economy within the policies that we currently have.

Superpower amalgamates a number of geographical concepts, namely sustainability, environment and place, shaping our thinking around what Australia’s future and national identity could be. With firm political support, Garnaut argues that not only could Australia have met targets of 100% renewables by 2030, he suggests Australia could lead the world in the domain of clean technology. Investment in such clean technologies as batteries, hydrogen, solar, wind and hydro-electricity will see Australia rise as a ‘global superpower in energy, low carbon industry and absorption of carbon in the landscape’ (p. 8). Not only can Australia meet its energy needs through renewables, but Australia can be a major exporter of energy to South-east Asia, to countries such as Indonesia as they transition from developing to developed countries with a high energy demand. Australia has the sun and wind expertise, and land to become
the energy superpower in our region, providing a massive boost to our economy.

Whilst this book provides an exciting and compelling prospect in an era when the narrative for hope is needed more than ever, Garnaut’s writing style remains relatively inaccessible to a general reader. For those who do not have a basic economics background, or do not already have a well-rounded knowledge and understanding of the intricacies and latest developments in clean energy technology, many details are likely to go over readers’ heads.

Many of the principles, data and statistics presented throughout the book would still be highly useful if presented in a very basic way to students and there are still a number of future projection graphs and statistics that are likely to interest any geography teacher or student. However, this information would be beneficial only if a basic revised edition of the book was released that helped deliver Garnaut’s very important message to the Australian public in a more accessible and student-friendly manner.

This book is critically important and should be considered compulsory reading for all politicians and for anyone who possesses good economic literacy and is concerned for our future. However, it is not recommended as an easy option for even senior geography students, and could only be used if the content was stripped back and simplified.

Laura Robertson
Thornbury High School, Victoria

The message of the book is clear from the outset. We must confront the realities of the climate crisis head on, adopting the mindset of stubborn optimism, an ethos of shared winning, and regeneration to replenish what we use. According to the authors, ‘changing direction at this late hour is entirely possible, but only with collective intent and optimism that is so robust, we jolt ourselves out of the currently established default path’ (p. 64). The key message is not to dwell on what has already been lost due to the climate crisis or be overcome by hopelessness. Instead, we must organise ourselves efficiently and quickly.

The book outlines ten actions people must take, as the time for ‘doing what we can has passed’ and that we must now all ‘do what is necessary’. Some of these actions include letting go of the old world and our grief that goes with this loss, defending the truth, becoming ‘citizens, not consumers’, moving beyond a fossil fuel economy, and engaging more women in politics.

The future we choose is a practical and outstanding resource for geography teachers and students. The information and frameworks outlined for change are suitable for all ages and could be tailored as a P-12 Geography learning resource. The themes and concepts it touches on are accessible to all reading levels and abilities. The geographical concepts underpin the themes and motivations of the book, in particular interconnection, sustainability, scale, change and environment. Although applicable to any geography-related unit of study, it would be useful to dip into the messages of the book for the environmental change and management unit at Year 10 and Victorian Certificate of Education Unit 1 Hazards and Disasters.

In the face of the most urgent and consequential issue ever faced by humankind, this is not a book that can be ignored. It is essential reading for all, geographers or not.

Laura Robertson
Thornbury High School, Victoria

Andrew Blum takes us on a journey which examines the historical background to weather forecasting from the first telegraph in 1844 through to today’s satellites and super computers.

Something we take for granted – checking the weather forecasts on our mobile app – he sees as akin to such a banal activity of flushing the toilet! His expose covers a wide range of geographical concepts.
The early telegraph operators soon learnt that it was possible to exchange weather information across distances – which created a space time continuum. It was possible to know the weather in many places at the same time thus potentially providing advance warnings of bad weather, or forecasts. In 1859, Robert Fitzroy coined the term ‘synoptic chart’ which led to forecasts with the first weather machine being over 15 telegraph stations. The work of Vilhelm Bjerknes in Norway (atmospheric circulation) and Lewis Fry Richardson in England (atmospheric structure) were important developments in the late 19th century. So, knowledge was not bounded by political boundaries, land or sea.

Very quickly it was realised that there can be no weather observations without infrastructure.

The Second World War saw technological developments which allowed a more expansive view of weather. But interestingly satellites tended to have both civilian and military missions. As Blum explains ‘human exploration . . . while also creating technologies that could destroy humanity’ (p. 99).

There are weather stations almost everywhere on Earth – the most important of which are managed by the UN World Meteorological Organization. These, in turn, are part of World Weather Watch. Ocean data buoys, aircraft, upper-air stations, automatic stations and satellites (geostationary and polar orbiters) all contribute.

The use of supercomputers meant that by 2015 the six-day forecast was as good as the two-day forecast of 1975. However, it’s a good reminder that a model is a model – not reality, nor its mirror, but a representation. By February 1991, we had the first weather forecast on the internet. Now, of course, we have weather apps on our phones keyed to our location. However, Professor Allan Murphy of Oregon State University is keen to remind us that ‘weather forecasts acquire value through their ability to influence decisions made by users of the forecast’ (p. 161).

In the weather community, the sharing of data and the giving of services is always free. As John Zillman (Australian Bureau of Meteorology) put it in 2015: ‘the World Meteorological Organization is the most successful international system yet devised for sustained global cooperation for the common good of science or any other field’ (p. 175). Andrew Blum concludes ‘the weather machine has to be a global system, and it won’t work any other way . . . we are many countries on one planet’ (p. 181).

There are reference notes for each chapter and a select bibliography for those interested in reading further. This is definitely a teacher reference, the knowledge from which could easily be used to further understand where we have come from and why weather forecasts can look so far into the future.

David Williams, Melbourne, Victoria

Transculturalism and teacher capacity: Professional readiness in the globalised age.


Why should a teacher, primarily a teacher of Geography, purchase this rather academic, not obviously geographic, though compact offering that demands an audience of teachers across all disciplines?

The first response is just that. The purpose and content of this volume is aimed at all educationalists, from tertiary scholars to educational leaders in bureaucracies and most pointedly class and subject teachers through the breadth of compulsory education, not exempting geographers.

Niranjan Casinader’s explicit premise is that, for a school that wishes to be an education provider of 21st century learning, the majority of its teachers must have a ‘transcultural disposition’. If, after reading this review, you find you have a gap in your time-budget and a desire to further advance your teaching skills by taking your ‘geographic nature’ to a different place, I would recommend that, as a fellow geographer cognisant of my global responsibility as a 21st century teacher in this cosmopolitan location we call Australia, I would be taking a serious read of this contribution to further my future-proof teaching.

Transculturalism, a way forward for the 21st century, is Casinader’s progression from the more recognisable terms ‘intercultural’ and ‘multicultural’. ‘Transcultural’ looks at the world and sees ‘difference’ as a ‘natural state of society’. To get to this point, Casinader takes the reader on an historical journey of teaching that starts at the primeval teaching by the parent/village as primary educators to the time the Church was the source of all teaching through to Imperial Britain and the coming of the ‘teacher’ as a professional where cosmopolitism is the environment. Curriculum moved from survival skills to faith and morals, to teaching for citizenship.

In order to achieve the aim of a profession embedded with transcultural awareness, the teacher’s initial and ongoing accreditation must take account of continuous and evolving understanding of ‘culturalism’ as it morphs through the teacher’s career, so that transculturalism is the new normality. In order to measure ‘teacher capacity’, Casinader developed the ‘Model of Cultural Dispositions of Thinking’ paradigm. Using a set of qualitative measures, he placed his respondents on a spectrum of ‘readiness’. From this dataset, teachers were classified as either ‘IS’ (independent action and self-focused) to the other extreme of ‘CC’ (collective action and community focused) with those occupying the middle being those teachers most likely to be equipped for transculturalism or ‘TC’.

Using this tool, Casinader conducted his research project accessing schools and teachers across the Anglo-US schools of the world. Most of these schools were already ones with
a ‘global’ or ‘intercultural’ profile. If one were to have some doubts as to the validity of the research it could be the (unavoidable) smallness of his sample, (but as someone who has also attempted to conduct research reliant on access to teachers, I am totally sympathetic).

Yes, read it, challenge yourself; read this contribution to wider education thought and be open to reflection on how being ‘transcultural’ could further enhance your geography teaching.

Les Mullins
Surrey Hills, Victoria

Upheaval is Jared Diamond’s eighth book and follows on from some highly regarded works such as Guns, germs and steel for which he won the Pulitzer Prize, and Collapse that was a number one bestseller. Diamond, who is Professor of Geography at University of California, Los Angeles, has in this book created a 12 criteria framework to guide how individuals, groups and nations can deal with significant issues and resolve crises. A number of case studies are used to apply his framework where events have led to identity issues, civil conflict and severe consequences, including Australia, Finland, Chile and the United States.

Each case study provides an interesting summary to a complex set of events that has led to crises and, if anything, you get a comprehensive background into each of these nations with an examination of how resolution can be or might be made. Dealing with a crisis starts with self-recognition that there is a crisis and an acceptance that something needs to be done. In the study on Australia, a focus on the first 19 days of the Whitlam government is made and how the changes and decisions made in this three-week period resolved circumstances that had become increasingly controversial. Such decisions included revoking the White Australia Policy, reducing the voting age to 18, bringing back troops from Vietnam, equal pay for women, indigenous recognition, and abolishing University fees. Diamond contends these decisions led to a renewing of an Australian identity independent of colonial powers and embracing its geographic location.

The discussion of the crises facing the United States leads to an examination of declining political compromise and increasing political polarisation. Diamond contends that the issues facing the United States pre-Trump (Diamond deliberately avoids commenting on issues related to the current Trump administration) will beset other democracies as geopolitical factors reinforce deeper political divides. These divides spawn increased social nastiness and current events such as demonstrated by Black Lives Matter protests and disagreement concerning the COVID-19 pandemic.

The book concludes by looking at the crises that need to be resolved if global harm is to be avoided in the future. He contends that four sets of problems – global climate change, explosions of nuclear weapons, global resource depletion, and global living inequalities – present the greatest threats to shaping current and future civilisations. These problems are dissected using his framework, with some obvious conclusions that global resource consumption and global populations need to decline, and there needs to be a universal coordinated concentration on the many solutions that may ameliorate the big issues.

Diamond is hopeful for the future but not completely convinced that humanity has learnt from the lessons of the past. As all his books do, Diamond challenges your thinking and makes you realise that solutions to any crises are complex in nature and solutions need to be considered carefully as there is no silver bullet.

Year 12 geography teachers will find some aspects of the framework useful when looking at the effectiveness of responses in Victorian Certificate of Education Unit 3 and population issues in Unit 4.

Andrew Chisholm
John Monash Science School, Victoria

We are here is not your average national atlas. It explores traditional themes and employs conventional cartographic techniques, but these are manipulated to produce engaging data visualisations that encourage the audience to see information in a new light, so promoting deeper understanding.

A different guest writer introduces each section bringing a personalised approach incorporating diverse perspectives. It is easy to navigate with both a textual and visual summary of the contents, including a snapshot of every map and corresponding page number. Most of the software used to create the maps is free and open source and can be referred to in the appendices along with technical notes and data sources for each map.

The striking colour palette highlights elevation contours with starkly contrasting shades. Maps depicting the physical shape of the North and South Islands are deep blood red and fiery orange and yellow. The landscape is akin to a living, breathing
body where everything is interconnected and nothing exists in isolation. This ideology is extended further and enshrined in world-first legislation bestowing legal personhood upon Te Urewera, formerly the largest National Park on the North Island and Whanganui, New Zealand’s third longest river. This is a significant acknowledgement that ancestral land has its own identity transcending Western concepts of property possession.

‘The Sinking City’ shows the extent of subsidence and uplift in eastern Christchurch resulting from the 2011 earthquake. ‘The Windy City’ shows wind zones in Wellington where the wind is often so severe that many buildings require special bracing. ‘The Secret Lives of Cats’ tracks movements of introduced domestic predators in urban Wellington. ‘Income Gaps’ exposes inequality with a calendar illustrating how long it takes various demographic groups and occupations to earn the median annual income for a Pacific Island female working full-time. Sobering truths like these are counterpointed with lighter themes like the musical timeline chronicling the evolution of popular music in New Zealand from the 1920s to the present.

We are here is suitable for use as both a teacher and student resource, particularly for the Humanities and Digital technologies targeted at Year 10 and Victorian Certificate of Education. For a generation who has grown up using Google Maps, it challenges them to critically analyse and contextualise what each map is telling them. It also allows for interesting comparisons to be drawn between New Zealand, Australia and other Commonwealth countries reconciling the grave impacts wrought by colonialism on First Peoples Nations.

Māori writer Nadine Anne Hura introduces the final section and says, ‘As with any story there are always gaps, with light and shade given to different events and characters, depending on who is doing the telling’ (page 199). Skillful cartography uses this inherently subjective process to strip back and reduce data, presenting it to the reader so that they can make sense of what they see without being overloaded by information. The story this atlas tells captures the richness and majesty of the landscape, places and people of Aotearoa.

Sarah Ryan
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Windcatcher: Migration of the short-tailed shearwater.
32 pages, hard cover, ISBN 9781486309870
https://www.publish.csiro.au/

Windcatcher: Migration of the short-tailed shearwater is a children’s picture book, with water colour illustrations, which tells the story of a species of small birds with some remarkable features and their migration flights between the southern and northern hemispheres.