Shaping a nation: a geology of Australia.
Edited by Richard Blewett.
Canberra: Geoscience Australia and ANU E Press,
2012, 571 pages, hardback,
ISBN 9781922103437.
www.ga.gov.au
A free PDF download is available at http://epress.anu.edu.au/titles/shaping-a-nation

The title of this large and lavishly illustrated volume reflects the perspective from which it was written. Shaping a nation: a geology of Australia devotes its 571 pages to arguing, through reviews and case studies, that the geological framework of the Australian continent and surrounding oceans have had a pivotal influence on the Australian people, the national character, and the economy. This argument is hard to dispute, given the economic importance of bulk raw materials and energy, and the influences that geological history has had on climate, the availability of water, and the development of soils and biota. In building a case for this major theme, the 11 chapters detail the broad physical environment of the continent as a backdrop to human occupation, the evolution of living organisms both terrestrial and marine, the legacies of Gondwanan events, the widespread regolith or cover that poses challenges for mineral exploration, the coastline, groundwater resources, mineral deposits, geothermal and other energy sources, and the place that geological factors may have in sustaining or driving changes in the Australian economy in coming decades.

Though the book is very well written and produced, there are errors and omissions. For example, several chapters present differing estimates of the average elevation of the Australian continent, and the rate of recent national population growth. The book contains useful fact boxes that provide interesting asides or supplementary information. But the one on the SydHarb unit of volume contains significant errors (for instance on p.24, 1 megalitre is 1000 cubic metres, not 10 cubic metres!). A surprising omission from the book is any mention of the orbital (Milankovitch) influences on the planetary and Australasian climate systems and the glacial-interglacial cycles. However, the Milankovitch rhythms do creep in occasionally. For instance, Chapter 3 discusses the behaviour of fire in the Australian landscape on orbital timescales, and the 20 ka, 40 ka, and 100 ka worlds reflecting orbital precession, obliquity and eccentricity are shown schematically (though without comment) in Figure 3.13. The environmental hazards that exist in the Australian region are also allocated little attention. There are two scant pages on this topic in the final chapter, and scattered comments elsewhere. These hardly do justice to the topic, neglecting in particular much of the geography of environmental hazards, and the critical role of societal vulnerability and resilience as influences that are in some ways more important than the threatening environmental processes themselves.

There are some courageous claims in the book, such as that the Australian dollar will remain high for years (it has fallen dramatically since the book was published) and that the solutions to the many challenges that will be faced in coming decades can be found in the realm of geoscience. Though there is certainly some truth in the latter claim, illustrated by the potential development of cleaner and more sustainable geothermal power sources, the case is pushed a little hard. Population policy, for instance, or the debate about the allocation of water — for the environment, for crops, or for towns and cities — will require expertise from areas well beyond the geosciences, if they are to be managed wisely and successfully.

Readers of this book may be unclear about some of the nomenclature — such as terranes and basement terranes (as distinct from terrains), heat flow provinces and geothermal plays (none is in the index), or the basis for using terms such as Pleistocene (epoch) and Quaternary (Period). However, these and a few other concerns (such as the use of the American spelling sulfur, and rare typographical errors) do not detract from what is a wonderfully readable overview of the place of tectonics and the solid earth processes in the building of the Australian landscape, environment, and nation. The book reflects an enormous and ongoing investment in field and analytical work by generations of geoscientists. Though clearly much remains to be learned, the scope of what has been revealed about the long development of Australia and its region is a striking tribute to their labour. The book can be recommended strongly to all those with an interest in things geological, or those with related interests who would like an up-to-date overview, written by a catalogue of experts from Geoscience Australia, universities, the CSIRO, the Australian Museum, and other organisations. The book has an abundance of excellent diagrams, photographs, and maps — national and larger scale — that present some of the available geoscience data sets that allow Australia to be viewed in fresh and informative ways. These by themselves make Shaping a nation a must-have.

Associate Professor David Dunkerley
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Teaching primary geography for Australian schools: early years to year 6.
By Simon Catling, Tessa Willy, and John Butler.
www.hbe.com.au

With the new Australian curriculum for Geography recently published and primary geography now a core subject from Foundation to Year 6, this book is a very timely and valuable resource. The strong theoretical foundation of this text together with the practical examples and useful teaching strategies will benefit novice teachers and experienced teachers alike.

The text is organised into 14 chapters and divided into two parts. The first section begins by exploring the current state of primary geography, including key documents and influences, that have shaped the Australian geography curriculum. This is followed by an examination of the nature and importance of geography and the significance in a primary context of children's everyday geographies. A key message in this section is that primary geography education should value and harness the geographical awareness, understanding and experiences of the world that children bring to the classroom. Also highlighted is the significance of the core concepts of place and sustainability in primary geography while some initiatives and ideas are outlined that help foster children’s responsibility for their places, environment and future. A detailed rationale for, and explanation of, geographical inquiry is reinforced by a chapter emphasising the importance of fieldwork and the use of visual technologies to support inquiry-led learning and teaching.

In the second section, the focus is on exploring geographical learning opportunities and resources for teaching geography across the primary levels and the Early Years. The concepts of place and sustainability are further developed by drawing on examples from different scales – the school and its grounds, local and Australia studies, global dimensions and overseas localities. The book concludes by providing practical guidance on planning and assessing in geography education and challenges teachers to consider researching their own practice to improve geography teaching and learning.

One of the greatest strengths of this book is the case it provides for the relevance and value of geography for primary children. The authors bring their extensive experiences as teachers, teacher educators, curriculum writers and researchers to the task of illustrating ways in which teachers can enhance and extend children’s intrinsic geographical interest, awareness and understanding. The practical and accessible learning examples and the useful teaching strategies provide information and reassurance to primary teachers to enable them to contribute effectively to deepening children’s geographical understanding.

I recommend this text to primary teachers, teacher educators and anyone who is interested in promoting high quality geographical teaching and learning in primary and early childhood contexts.

Dr Lou Preston
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Teaching secondary geography as if the planet matters.
By John Morgan.
Abingdon: Routledge, 2012, 183 pages, paperback
ISBN 9780415563888.
www.routledge.com

This teacher resource book has three sections – Contexts, Themes and Practices – each of which contains extremely well referenced chapters.

The text asserts that “in its present form, the simple models of people and environment found in school geography serve to inhibit understanding of the causes of environmental problems”. As an example the author argues that climate change should be not taught from a scientific fact and individual responsibility perspective but as part of the terrain of how capitalism works and the relationship between economic expansion and climate change.

The Contexts section provides a history and focuses on the UK secondary geography curriculum and its relationship to environmental and sustainability education. There are parallels evident with the development in Australia of New Wave Geography in the late 1980’s.

More recently, the influence of current UK Geography is also apparent in the new Australian Curriculum: Geography, thus providing an excellent reference for developing courses.

The majority of the book’s content is in the Themes section with five chapters delving into the most commonly taught UK school geography topics and issues. These include food, cities, climate change, personal geographies, and mobile lives.

The Practices section acknowledges that teachers have lost control over curriculum development and assesses the prospects of regaining control in relation to an approach that draws on ‘advances in human and environmental geography that help students to understand the contemporary world’. This is sadly a very brief section. More teaching examples are required to guide the practicalities of developing this curriculum approach and implementing curriculum consistent with his arguments.

Stephen Latham
Geography Teachers’ Association of Victoria, Camberwell South, Victoria

Endnote
Rivers: A very short introduction
By Nick Middleton.
ISBN 9780199588671.
www.oup.com.au

Rivers, a very short introduction is the 311th in a series of books that aims to provide a brief, informative and accessible introduction into a variety of subjects from all walks of life. Other titles in the series of interest to geographers include Deserts, Geopolitics, Landscapes and Geomorphology, Global Warming, and Globalization.

Written by Oxford University academic and prolific author Nick Middleton, Rivers provides a concise coverage of the roles rivers have played in the development of landscapes and the complex interactions humans have had with rivers over time. The influence of rivers in relation to human settlements, political boundaries, industrial developments and the transport of goods is discussed as are human actions designed to tame, modify and exploit rivers across the globe.

The book contains numerous concise examples to support points made and these examples are global in nature from the Mississippi to the Danube, Yangtze, Murray/Darling, Ubangi and Amazon rivers. In fact, Middleton uses more than 40 rivers across the globe to cleverly illustrate salient points throughout.

This book will be a very useful resource for teachers and students who would like to get a better insight and introduction into how rivers work and how rivers differ in the way they are used by humans in different locations. It is written in language that is easy to understand and is accessible at a number of levels.

For those in Victoria doing VCE Unit 3 Geography, the last chapter on tamed rivers gives some excellent comparisons that will allow teachers and students to see that issues with river regulation in the Murray-Darling Basin are not an isolated occurrence.

The book will also be a useful reference for those writing courses for the new Australian Curriculum: Geography at many levels. This includes: Year 7 Water in the world, Year 8 Landforms and landscapes, Year 9 Geographies of interconnections, and Year 10 Environmental change and management.

Andrew Chisholm
John Monash Science School, Clayton, Victoria

The human shore: seacoasts in history.
By John R Gillis.
www.press.uchicago.edu

This book presents a detailed account of uses of and attitudes to coasts and shorelines from the Stone Age to the present, an ambitious but highly interesting coverage. This work contains a lot of material including a large number of examples and references to other works. In focusing on coastal not inland areas, the author presents, as stated in the Introduction, a challenge “to the conventions of terracentric history”. For geography teaching, I see this as a book for teachers and senior students, and particularly useful during the preparation of extended essays.

Six major periods of coastal history are covered in six chapters respectively, with an introduction, conclusion and an extensive list of endnote sources. In brief, the first chapter examines the existence of coastal Stone Age societies, and how this richer and healthier ecotone gave impetus for Homo sapiens to develop sedentary communities, trade and communications. The coastal zone and (the then) dry land bridges were then used to spread eastwards from Africa to India and beyond. The next three chapters follow phases of subsequent migration and seaboard development. Over the course of extension laterally along the shore, coasting rarely out of sight of land, and trans-oceanic voyaging settlement extended to islands and edges of the Indian Ocean, the Pacific and the Atlantic. From marine hunter-gatherer societies developed seaborne trading empires and eventually today’s fuller settlement and modern coasts with drainage, birth of ports, and other engineering works.

In the final two chapters, the author turns to the second discovery of the sea – i.e. its dangers, wilderness attraction, therapeutic value and recreational use, and its adjacent real estate development. He concludes that we have come to live on coasts, forgetting how to live with them, and emphasises our need to recognise and adapt to the natural systems operating there.

In addition to change over time and other spatial concepts, there are global, regional and local scale examples in this history that could be used in geography work. These include migration, urbanisation, port development and decline, site recycling, resources, recreation, seafront engineering, the fishing industry, and natural systems. As most examples are from the Northern Hemisphere, teachers and students here might usefully discuss the extent to which particular recent examples and some of the general observations apply to Australia.

Barry Pemberton
Hampton, Victoria
At a time when school-based geography curriculum change appears almost universal, Debates in geography education provides both geography teachers and teacher educators with essential reading regarding contemporary geographic education themes and issues.

Structurally the book is composed of three sections concerning policy debates, classroom debates, and subject debates. The section on classroom debates, incorporating curriculum and pedagogy, is given greatest emphasis, and the main but not sole focus is on geography at the secondary school level. The editors have deliberately chosen contributions from teachers, teacher educators and researchers in the field of geographic education, ensuring a balance of experience and perspectives are represented. Although the contextual setting for the book is UK based, the debates address important issues of direct relevance to geography teachers globally.

The twenty-three comprehensive, evidence-informed, rigorous debates address issues of importance including: what constitutes geographic knowledge; understanding conceptual development; constructing the curriculum; linking assessment to progress; the contribution of fieldwork and outdoor experiences; impacts of technology and media; dealing with controversial issues; what geography contributes to global learning, and the like. The strength of having the chapters presented in debate format is the content not only informs discussions but provokes thought, reflection and asking of critical questions when examining our own practice. For the busy teacher each debate is stand-alone in nature. An added bonus for practitioners and researchers wishing to delve further is the recommended key readings and extensive reference sections provided at the end of each debate.

I have no hesitation in recommending Debates in geography education particularly for geography teachers and educators wishing to broaden their understanding regarding the current issues and concepts shaping their practice.

Murray Fastier
University of Canterbury, New Zealand

The World until yesterday is a fascinating account of Diamond’s efforts to appreciate the nature of indigenous life in Papua New Guinea and what can be learnt from such life. This contribution to the cultural geography literature while largely based on fieldwork in PNG also refers to traditional societies in Africa and North America. Its focus, however, is Diamond’s ‘fascination with the different ways in which other peoples have organized their lives’. As such, the book is not one that has direct relevance to most school geography study, although the case studies of group lives could well be very useful material for student use.

This large book begins by using the nature and experience of the airport as the device by which one moves from one’s own society to a different human society and even here Diamond identifies features of his own life and compares them with the other lives he is fascinated with.

Following this introductory section discussing the nature of traditional societies and their use of space, The world until yesterday focuses on four features of human life and experience – Peace and War, Young and Old, Danger and Response, and Religion, Language and Health. The book concludes with conclusions about the advantages of the modern world and the traditional world. In each of these features, Diamond provides case studies of how the traditional world manages the challenges that are embedded in that aspect of human life and, by comparison, critiques the ways modern or western life manages them.

Diamond’s perspective is not a through-rose-coloured-glasses one. One of his key conclusions is how his analysis demonstrates that we should be thankful for many of the features of western society, but just as pertinently he points up many ways in which our modern life is contradictory and that there is much that we can learn from traditional societies.

Diamond’s substantial study deserves to have a place in school libraries if only to provide a resource to which questioning young people can be referred when discussions about the nature of human life arise. Diamond’s analysis, as he conjectures about what he has learnt from his studies, throws up so many insights and questions about the meaning of human experience that would be good for our young students to grapple with.
Made in Australia: the future of Australian cities.

By Richard Weller and Julian Bolleter.


www.uwap.uwa.edu.au

Do not judge a book by its cover. This book’s plain cover belies the wealth of visually attractive, and creatively and imaginatively presented material that is located inside. Not to mention the thorough and detailed text.

The main theme is about planning for Australia’s cities and regional centres with populations projected to be between 33.7 and 62.2 million by the year 2012. This is as far as the Australian Bureau of Statistics will go with its population predictions. Contributions come from writers with backgrounds in architecture, planning, economics, design and development. In the preface, the authors state that “This book is intended as a resource and a provocation to encourage reasonable and imaginative debate about the future”.

The book is divided into five sections with clearly identified subsections: 1. Big Cities, Big Ideas: Big Australia; 2. Australian Cities 2012–2056; 3. Australian Cities 2101?; 4. Essays; and 5. Designs. There is an analysis of the national landscape and then an examination of major development proposals for each capital city and for a number of regions.

The concepts in the Australian Curriculum: Geography are certainly addressed very well especially, place, space, change, interconnections, sustainability and environment. Ideas presented in this book are applicable to most units in the new curriculum.

The book’s real strength, as a resource for geography teachers, is its wide range of visual materials, especially the maps, graphs and photographs. It has a way of presenting familiar material in an unfamiliar way. The writers do not just simply state a statistic but support this with a map or graphic which effectively supports their case – for example, **Arable land in Australia is 6% of Australia’s total landmass** is shown by overlaying a small map over a large map of Australia, occupying 6% of its area.

Made in Australia: the future of Australian cities is a very thorough, comprehensive and thoughtful resource. It is definitely a teacher resource, especially for teachers who are looking for inspiration from maps and creative presentations or are interested in finding out more about some of the major issues of sustainability and resource management facing Australia today and in the future.

John Ramsdale
Montmorency, Victoria

The collaboration between three authors whose primary discipline interest is history (Taylor, Fahey and Boon) and one author who is a geography discipline expert (Kriewaldt) is an eclectic response to curriculum developments in Australia in particular.

Both disciplines have suffered a declining presence in schools and higher education over a period of several decades that can be traced primarily back to the introduction of the more generic curriculum developments associated with Studies of Society and Environment (SOSE).

Whilst some teacher training courses retain the discipline methods course, nowadays pre-service programs tend to package the disciplines into methods courses for Humanities where they compete for time with a proliferation of other content areas including media studies, health, civics and citizenship studies. Either way the time allowance for non-geographers and non-historians (or graduates without discipline majors), who need to complete these methods courses for pre-entry into primary teaching (and some middle schooling programs), is embarrassingly brief. The net effect is graduates enter teaching with a near absence of the discipline backgrounds from their schooling and pre-service training. When confronted with the task of teaching the discipline-based curriculums in schools, the temptation to seek guidance through reflection on personal learning experiences must be considered a pragmatic survival option. The danger with this solution is two-fold. First, with the best intentions alive the role models from one’s past may be well and truly flawed. Second, advances in technology have opened up infinite possibilities for imaginative, innovative and creative applications of the core concepts of the disciplines. To attain the best of the new opportunities now available for schooling, teachers need discipline expertise. Who can doubt the centrality of **place** and **time** in our lives? We live in real and imagined places and the living is associated with a moment in time. Scholars of history are the acknowledged experts in piecing together events from the past – a perspective on time in a place. Scholars of geography are acknowledged experts in the interpretation of space and place with capability of noting changes in space and place arrangements over time. Hence, the complementarity of the disciplines and the enrichment each brings to our understandings of our complex world. This book sets out to achieve this target. It offers a useful guide for pre-service teachers, a set of valuable tips, plus resources.
The book is arranged in 19 chapters set out in four parts. The Preface explains the rationale for the book with particular reference to curriculum developments within Australia that have taken place with the revamping of the Australian Curriculum. The authors seek to offer a two part solution for history and geography. One is an integrated approach to the teaching of the disciplines and the other is a discipline specific approach. Whilst these are two significant demands for one volume and run the danger of confusion, there is also a little reality in the sense that the same teachers are likely to be teaching both disciplines — especially in primary schools — and they need some sense of the relationship(s) between the disciplines. Amidst a call for evidence-based learning, there may be justification for seeking solutions to problems or inquiry-based learning that can piece together artefacts from the past to explain the present social, political and economic events, and simultaneously grasp network flows amidst the built and natural landscapes. My caution here is that as the book strives to achieve recognition of the singularity of each discipline the authors may have muddied the waters by attempting any kind of assimilation. Put simply, geographers and historians view the worlds of time and place differently.

Chapter 1 provides an introduction that tells us the book targets three questions. What is entailed in a disciplinary approach to teaching and learning history and geography? How do children and adolescents learn geography and history within a disciplinary framework? What are the characteristics of effective practice in teaching and learning geography and history? The book is then divided into four parts. Part 1 consists of three chapters related to geography matters, history matters and Aboriginal and Torres Strait Islanders respectively. The latter is a chapter written by Harry Van Issum that argues the importance of all Indigenous content in all studies. Like the last chapter (Chapter 19) related to sustainability, there is the sense that these two themes, along with reference to the digital economy, warrant integration into the Introduction chapter. Still the key point is that Indigenous interests are given just significance. So too is the matter of sustainability and the importance of digital technologies (see Chapter 6).

Part 2 consists of ten chapters under the banner title of Understanding the teaching and learning of geography and history. The focus of all these chapters seems to be critical thinking and the value of inquiry based learning. As a collection, each chapter offers a contribution for teachers to consider in the context of each discipline and includes historical overviews of relevant pedagogical developments. For instance, Tony Taylor offers an introduction to inquiry-based learning (see Chapter 8) which is followed by applications in each of the disciplines (Chapters 9 and 10). Each of these chapters contains a variety of useful activities and suggestions for teachers. Next comes a series of chapters related to planning, curriculum related issues, progression and assessment (Chapters 11–14).

Part 3 consists of two chapters related to big picture issues and the classroom. Experiential learning, fieldwork and the application of technologies are included. Part 4 follows with three chapters related to investigating perspectives in the teaching and learning of geography and history. Values education, global perspectives and sustainability are the themes of these chapters respectively.

The book ends after this final collection of interesting insights without pomp or ceremony. Something is missing. There is need of a final comment to integrate the three questions posed in Chapter 1 with the content presented in the four parts and eighteen chapters which follow. With this reservation and perhaps some parsimony flagged in terms of the arrangement of the content, this book should provide pre-service teachers and teachers in the classroom with valuable guidance on both the discipline perspectives of historians and geographers with the bonus of a whole lot of useful ideas for teaching and learning. It's a worthwhile investment.

Margaret Robertson
La Trobe University, Bundoora Victoria
Shaping a Nation tells the story of a continent’s geological evolution and fortune, as seen through the lens of human impacts. The book summarises the latest thinking about Australia’s geological history, describing the significance of its mineral and energy reserves, the development of its coastal and groundwater systems and the evolution of life across the continent. In revealing how these factors have impacted on Australian society over time, Shaping a Nation also explores some of the modern challenges and opportunities they offer us.

Superbly presented in hard cover and accompanied by full colour photography and illustrations, this book offers both a compelling interpretation of and spectacular visual journey through Australia’s geological past.

**Bonus DVD**

Shaping a Nation: A Geology of Australia comes packaged with a DVD of supporting resources, including further reading, movies and animations, full colour maps and an interactive 3D model showcasing many national and regional geoscience datasets.

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