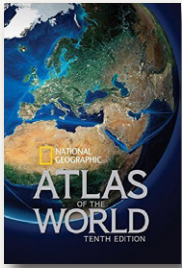


# THE NATIONAL GEOGRAPHIC ATLAS OF THE WORLD (DELUXE 10<sup>TH</sup> EDITION)



The National Geographic Society, 2015.

448 pages, 145 plates, 300+ maps, 250+ graphs and charts, 75 color photographs.  
\$195.00, hardcover.

ISBN: 978-1-4262-1355-7

**Review by:** Christine Newton Bush

*The National Geographic Atlas of the World (Deluxe 10<sup>th</sup> Edition)* is a large format (12.125" × 18.25") tome that includes a colorful hard shell slipcase with full color graphics and a collectible double-sided insert (41.5" × 29.75") featuring a map of “today’s physical world” on one side and “the first world map published as a supplement to National Geographic magazine in 1922” on the other. The product as a whole weighs 10.6 pounds.

This atlas is organized similarly to its predecessor (9<sup>th</sup> edition, 2010), with four sections: World Themes (Plates 5–25); Maps (Plates 26–142) organized by continent, with additional sections for “The Poles,” “Oceans,” “Space,” and “Nations”; a short Appendix (Plates 143–145) for “Geographic Comparisons,” “Time Zones,” and “Foreign Terms, Abbreviations, and Metric Conversion Tables”; and an extensive Index (pages 1–148). Each plate is a two-page spread.

The inside front and back covers feature a “Key To Atlas Maps” with related symbology that provides a way to quickly identify the plate you need. These are indicated by the outlines of overlapping map extents with page numbers indicated in the corner of each area (see Figure 1).

As with previous editions, much of the current research in this atlas is presented in the initial section of twenty World Themes. Each World Theme plate features a world map in a Winkel tripel projection displaying geospatial data corresponding to its theme. Each of these World Themes is introduced by several paragraphs of contextual prose followed by sub-sections that break the theme into specific areas of analysis. Colorful, modern infographics are liberally used to present findings or to provide keys to inset maps (see Figure 2). Fourteen of these themes focus on humans and our activities, which sets a strong anthropocentric tone for the *Atlas*.



**Figure 1.** Inside back cover showing the “Key to the Atlas Maps,” which reveals the shape and extent of the maps found within—a map of the Atlas itself. Photo by C. Bush 2015, Creative Commons Attribution-ShareAlike 4.0 International License.

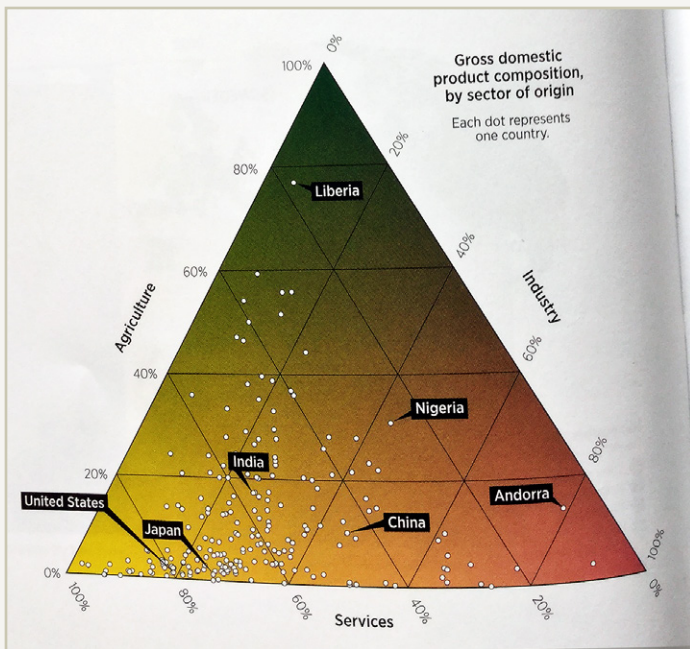
The cartographic centerpiece of the *Atlas* is, of course, the collection of eighty-eight physical and political maps. They are cross-referenced in a place-name index which includes more than 15,000 entries, with separate lists for undersea, Moon, and Mars features. From the perspective of cartographic design, the maps of this atlas are outstanding and remind us that certain projections present different regions of the globe to best effect. For purposes of selecting a projection, this atlas is an authoritative reference.<sup>1</sup>

Following the Index of place names and a section for “Flags and Facts,” the “Acknowledgments” deserve special attention by cartographers. Here you will find the data and online sources for key plates, including each of the World Themes. This information provides a wealth of contacts and resources for use in your own cartography, research, or teaching.<sup>2</sup>

As one might expect from a long-standing, influential institution such as the National Geographic Society, the

1. Absent a centralized listing of projections used in the *Atlas*, I have created one for ease of reference on my blog: [ngs.missingmaps.net](http://ngs.missingmaps.net).

2. For a digital listing of these and other resources, see [ngs.missingmaps.net](http://ngs.missingmaps.net).



**Figure 2.** Detail of Plate 24—“Economy: Straining Financial Links” showing Gross Domestic Product composition by sector of origin. The Atlas makes use of triangular scatter plots on several plates in the World Themes section. This one is less confusing than others and is based on data from *The World Factbook* by the CIA and from the Population Reference Bureau. Photo by C. Bush 2015, Creative Commons Attribution-ShareAlike 4.0 International License.

objectives for this landmark volume are grand. National Geographic Fellow Paul Salopek, making the epic journey entailed by the Society’s Out of Eden Walk project, penned the book’s Foreword while following the trail blazed by our ancient ancestors. Salopek describes the *Atlas* as “a profound traveler’s conversation” that “locates us not just in space, but also in our time. And like the best of map collections, its plates don’t simply just display the shape of the world as it stands, but as it could be—with all its promise and peril.” On Plate 2—“How to Use this Atlas”—the editors describe their work as “a useful reference tool,” and that “this Atlas is also a guide for dreaming. Its lines, colors, and patterns evoke images of exotic places, of visits made, and trips anticipated.”

A comprehensive analysis of a major reference work such as this is beyond the scope of this review<sup>3</sup>, so I will focus my explorations on new or revised cartographic plates in the in hopes that a sampling may serve to represent the whole.

3. For an extended version of this review, see [wp.me/pkZiT-6V](http://wp.me/pkZiT-6V).

## WORLD THEMES

When comparing the “World Themes” research section of the 10<sup>th</sup> edition to its corresponding predecessor (the “Thematic World” research section of the 9<sup>th</sup> edition) one finds the editors have simply shuffled the deck a bit. Three of the plates were given new names, but focus on the same area of research: “Population Trends” morphed into “Human Influences”; “Impact of Cities” was changed to “City Dominance”; and “Communication” was updated to “Interconnectivity.” Much of the content in these sections has been revised (or replaced) but there are no entirely new areas of research presented.

### Plate 9—“Climate: Shifting Winds and Weather.”

Sea ice in the Arctic is shrinking faster than models predicted, the result of a climatic feedback loop powered by the increase in absorbed solar radiation resulting from the loss of ice. Sea levels are rising, however, not only as a result of melting polar sea ice, but also from melting polar and glacial sheet ice releasing fresh water that was being stored on land into oceans. In the era of satellite measurement of sea-level change, we have witnessed an increase in sea level from just over 150mm in the mid 1990s to ~225mm in 2013.

### Plate 11—“Biodiversity: Life, Protected and Otherwise.”

Acknowledging that “scientists believe that Earth in the midst of its sixth extinction crisis, with thousands of species vanishing each year,” this plate commences with a chart showing the growth of seven different types of “nationally designated protected areas.” During the period from 1950 to 2010, the most dramatic growth is found in National Parks and Protected Areas with sustainable use. Cumulatively, all these different types of protections are adding up. Their combined area has more than doubled from roughly 6 million square kilometers in 1950 to over 15 million in 2010.

### Plates 15, 16—“City Dominance: Cities Rule the World” and “City Characteristics: A Diverse Urban Landscape.”

In 2008 humanity for the first time became “majority urban,” with more of us living in cities than not. Plate 15 looks more closely at this milestone and explains that

while the largest population centers, the “megacities” with 10 million or more residents, “seem to define our age” they are not representative of city life for most urban dwellers:

“Only a quarter of the urban population lives in cities with more than five million residents, and rapid growth is mostly found in cities of fewer than 500,000. More than half of all city dwellers—a quarter of humanity—call these smaller cities home.”

Plate 16 states: “a fresh future is taking shape, with urban areas around the world becoming not just the dominant form of habitat for humankind, but also the engine rooms of human development as a whole.” Given this historic shift in human habitation and multiple World Theme plates in this and the previous edition being presented on the significant role of cities, one wonders why this edition of the *Atlas* does not include any maps of megacities and major metropolitan areas.

#### **NEW MAPS**

Updated cartography in this edition includes new plates of Ireland, Scotland, England, Wales, and Australia as well as new maps covering the Mariana Trench, Africa, and the Mediterranean Basin.

#### **Plate 61—“England and Wales (Cymru).”**

This plate is new to this edition, but is quite similar to Plate 60—“British Isles” (presented at a scale of 1:1,932,000) while this new plate is displayed at a scale of 1:1,136,000. Both plates use a polyconic projection.

#### **Plate 62—“Ireland (Éire)” on left side of plate, “Scotland” on right side of plate.**

This plate is new to this edition and each of these maps is presented at a scale of 1:1,136,00 in a polyconic projection. It presents Scotland in its entirety including the Orkney Islands and Fair Isle to the north, and the Inner and Outer Hebrides to the west. The map also includes an inset of the Shetland Islands (Zetland) in the upper left.

#### **Plate 96—“Mediterranean Region.”**

This new plate fills a gap found in the 9<sup>th</sup> edition and is grouped with the African maps. It presents the Mediterranean Sea, the Black Sea, Turkey, the Levant,

and most of northern Africa in their entirety at a scale of 1:8,000,000 in an azimuthal equidistant projection. It also includes much of the Red Sea and portions of Saudi Arabia and Iraq to the east. This is a useful reference with regard to increasingly desperate migration attempts from northern Africa toward Europe.

#### **Plate 98—“Northeastern Africa.”**

This plate has been updated to show the new country of South Sudan at a scale of 1:8,525,000. One can also see most of South Sudan at a larger scale on the next page, Plate 99—“Horn of Africa,” where all but the westernmost part of the country is displayed at a scale of 1:5,750,000. Both plates use a transverse Mercator projection.

#### **Plate 101—“South Africa.”**

This is new plate that shows South Africa, Lesotho, and Swaziland in their entirety with much of Namibia (including all of the Namib Desert) and Botswana to the north as well as portions of Zimbabwe and Mozambique. This plate is displayed at a scale larger than many other maps in the *Atlas*, 1:3,500,000 using a transverse Mercator projection. At this scale all of the region’s primary towns and cities are well spaced and easily located.

#### **Plate 103—“Physical Map of Australia.”**

This plate has been updated for presentation at a scale of 1:8,575,000 in an azimuthal equidistant projection with the improvement of showing Tasmania in situ rather than as an inset map. The 9<sup>th</sup> edition of the *Atlas* presented this plate at a scale 1:7,375,000.

#### **Plate 104—“Australia.”**

This political map of Australia has no changes in scale from its counterpart in the 9<sup>th</sup> edition of the *Atlas*, but also now presents Tasmania in situ. It still features inset maps for Christmas Island and the Cocos (Keeling) Islands, but they now appear in the upper left of the plate instead of lower left with a corresponding change in placement for the plate’s legend. This places the insets in more accurate relative positions to the northwest of the Australian continent, but leaves room for improvement in a future edition when perhaps the *Atlas* will also show them in correct relative position to one another. Christmas Island is west of the Cocos (Keeling) Islands, but the inset maps (as in the

9<sup>th</sup> edition) present Christmas Island on the left and the Cocos (Keeling) Islands on the right, reversed from their actual disposition to one another.

### **Plates 105–107—“West Australia,” “Northeastern Australia,” and “Southeastern Australia.”**

These plates are new to this edition and presented at a scale of 1:5,100,000 in an azimuthal equidistant projection.

“West Australia” displays all of Western Australia and portions of Northern Territory and South Australia. More details of various nature reserves, the western coast, and Melville Island are revealed.

“Northeastern Australia” presents Northern Territory and Queensland in their entirety and portions of Western Australia, South Australia and New South Wales. Also indicated are major coral formations of the troubled Great Barrier Reef Marine Park, and other major coral formations to the east and northeast of the park.

“Southeastern Australia” presents South Australia, New South Wales, Victoria, and Tasmania in their entirety as well as portions of Western Australia, Northern Territory and Queensland.

### **Plate 115—“Pacific Ocean Floor.”**

This plate’s cartography has not changed dramatically, but its sidebar text has been updated from previous editions to include acknowledgment of James Cameron’s historic solo descent into the 11-kilometer deep eastern depression of the Mariana Trench. On March 23, 2013, Cameron piloted the DEEPSEA CHALLENGER to a depth of 10,908 meters, just 4 meters shy of the 1960 descent by the U.S. Navy’s Picard and Walsh. The latest measurements of the “Challenger Deep” indicate a depth of 10,920 meters,

which places Cameron’s descent to less than 100 feet from the seabed of Earth’s deepest, darkest location.

### **CONCLUSION**

*The National Geographic Atlas of the World (Deluxe 10<sup>th</sup> Edition)* remains a good value and meets very high expectations, but not without leaving room for improvement. Future printed editions should be printed on paper large enough to display an entire map at the desired scale, thereby eliminating page gutters. An example of this disruption can be found on Plate 62 which is actually a divided plate featuring “Ireland (Éire)” on left side of plate, and “Scotland” on right side of plate, but with the same plate number on both maps. A casual researcher (the likely market for this atlas) could easily misread this plate as a single map if they failed to notice the lines of latitude not running congruently across the gutter. The Index—if not the entire *Atlas*—could be made available as a fully searchable digital product. Covering every part of the world could be done more equitably, with less emphasis placed on the United States. Future editions should break through the self-imposed geographic scope and present maps of megacities and major metropolitan areas. The *Atlas* could also be improved by increased coverage of the whole biosphere by including more plates that focus on flora and fauna.

As I researched this atlas one of the main things I came to appreciate is that its long-term role is largely historical, not geographical. It is meaningful, for example, to look at the 1922 Map of the World (included as an insert with the deluxe edition of this *Atlas*) to find a large region in the Arctic labeled “Unexplored Region.” This historical function also reveals one of the greatest weaknesses of the *Atlas*: it fails to effectively explain or illustrate within the context of individual editions what has changed since the previous one.