

Mapping the Unknown

In the mid-2nd century Claudius Ptolemy, astronomer, mathematician, geographer and keeper of the Library at Alexandria, created a summation of contemporary knowledge about world geography. Generally known as Ptolemy's *Geographia*, this work described a world in which a land of great extent would be found in the southern hemisphere, where an impassable 'Torrid Zone' ringed the earth at the equator, and where only the central regions of the Roman Empire were mapped with any accuracy.

Ptolemy's world map showed a landmass which extended from Europe's Atlantic coasts east to China and south to the upper portions of Africa, which were linked to the Indies by the Great South Land to create a landlocked Indian

Ocean. Ptolemy knew that his map only encompassed about a quarter of the globe, but he was unaware that, due to an error in the scale used, his measurements underestimated the earth's circumference by about one-third. This miscalculation represented the coasts of Europe and China as being much closer together than is the case.

Lost to the West for many centuries, a copy of the *Geographia* was translated from Greek into Latin around 1400, and initiated a renaissance of empirically-based mapping (to the extent then possible). In his use of a grid of latitude and longitude for his maps, his discussions as to the most effective projections for transferring a curved surface on to a flat plane, and his acknowledgement that his own work



Map 1. *Typus orbis descriptione Ptolemaei*
 Gaspar Treschel, Vienne, 1541
 Coloured woodcut map: printed area 325x460mm.
 IR 4092.0001
 Photo: George Serras

would need upgrading as new discoveries were made, Ptolemy provided an excellent model to follow. Manuscript, and from 1477, printed copies of the *Geographia* proliferated, with some versions seeking only to recapture the original maps and text and others incorporating new information.

A copy of Ptolemy's world map is one of four early printed maps recently purchased by the National Museum. It was chosen for its significance in perpetuating the idea of a Great South Land in particular; and its general importance in the history of European voyages of exploration. In common with most versions of this map printed after the 1488 voyage of Bartolomeu Dias around the Cape of Good Hope established the existence of a sea route to the east, the Museum's copy, *Typus orbis descriptione Ptolemaei* produced in 1541 by Gaspar Treschel, minimises the more speculative southern border of the classical map.

The second map purchased by the Museum is of Central Asia and India. It is entitled *Tabula Asiae VIII*, and is one of the 26 regional maps also described in the *Geographia*. The Museum's copy is from the first edition of Sebastian Münster's *Geographia universalis, vetus et nova*, published in Basel in 1540. Münster sought to purge Ptolemy's *Geographia* of the many errors introduced since its translation into Latin. In addition to the 27 maps associated with the original, he included 21 modern woodcut maps based on his own surveys and those of his wide network of correspondents.

Highly regarded by his contemporaries for his rigorous approach, Münster also captured the cultural beliefs about world geography that had flourished since Ptolemy's time. The margins of *Tabula Asiae VIII* are decorated with images of creatures sometimes referred to as 'Burkgmair's Prodigies' after Hans Burgkmair the elder (1473–1531), who illustrated Balthasar Springer's account of his voyage from Portugal to Cochin in 1505 with images of Anthropophagi (cannibals), men whose heads grow beneath their shoulders, and men with the heads of other creatures such as dogs and serpents.

The Prodigies can be traced back to book VII of Pliny the Elder's *Natural History of the World* where we find that:

In India there is a kind of men with heads like dogs... who in lieu of speech use to bark. Likewise there is a kind of people named monoscelli that have but one leg apiece. In the hottest season of Summer they lie along their back and defend themselves with their foot against the Sunnes heat.

The general human tendency to imagine monsters lurking beyond the bounds of knowledge was given theological authority by early Christian philosophers, who reasoned that the Torrid Zone would have prevented the progeny of Adam and Eve from reaching the antipodean regions. Any people found living beyond the Torrid Zone, therefore, could not have been made in God's image and must be monstrous. This disturbing possibility led to official denials as to the existence of an inhabitable southern land, but monoscelli (or skiapods as they were also known) still lurk at the edges of a number of medieval *Mappa Mundi*.



Map 2. *Tabula Asiae VIII*
Sebastian Münster, Basel, 1540
Woodcut map: 270x340 mm
IR 4515.0003
Photo: George Serras

While demand for Ptolemaic maps continued throughout the 16th century, the discovery in 1492 of the Americas – a landmass entirely unsuspected by the ancients and something of a surprise for Columbus too, who believed that he had reached Asia by a western sea-route – required the creation of completely new maps. The third and fourth maps purchased by the Museum both feature the New World, and are examples of the new generation of maps which drew strongly on Portuguese and Spanish discoveries and revolutionised the way the world was represented.

The Museum's copy of *America Sive Novi Orbis Nova Descriptio* was published in Antwerp in 1612 for the last edition of Abraham Ortelius' atlas *Theatrum Orbis Terrarum*, and is an example of the third state of the map. The first and second states were published in 1570 and 1579 respectively, but it was not until the publication of the third state in 1587 that the coastline of South America was corrected to remove an erroneous bulge.

Ortelius' *Theatrum Orbis Terrarum* (the Theatre of the World) is considered the first true atlas in the modern sense. It is a collection of uniformly sized maps and sheets of related text bound to form a book, for which the printing plates were specifically engraved. The *Theatrum* drew upon and credited the work of 183 cartographic authorities over its 42-year history. None was more important than Gerard Mercator, friend and mentor to Ortelius. Mercator's 18-sheet wall map of the world published in 1569 was Ortelius' major source for the New World and the Pacific.

Despite being newly engraved in 1587, *America Sive Novi Orbis Nova Descriptio* does not include Sir Francis Drake's discovery of 1578 that Tierra del Fuego was not the northern coast of the great southern continent. Mercator's close study of voyaging accounts had convinced him that Terra Australis Incognita did exist, and it appears on his maps and those of Ortelius occupying much of the Pacific Ocean. Ortelius has placed a large cartouche over his southern continent to obscure an area for which, not surprisingly, he had no reliable information.



Map 3. America Sive Novi Orbis Nova Descriptio
Abraham Ortelius, Antwerp, 1612
Hand-coloured copper engraving; 354x484 mm
NMA IR 4092.0002
Photo: George Serras

Ortelius' map of the Pacific Ocean, *Maris Pacifici*, first appeared in 1570 in the *Theatrum*, and the copy purchased by the Museum was printed in Antwerp in 1595. The ship shown between the coast of South America and a huge New Guinea is the *Victoria*, Magellan's flagship and the first to circumnavigate the globe. The angel holding a palm on the bow of the ship refers to the death of Magellan during the voyage, celebrating him as a martyr in the service of his religion. Disastrous for all but the handful of survivors who reached Seville in the *Victoria* in 1522, the voyage opened the Pacific to Spain for trade and territory.

Showing the whole sweep of the Pacific from the Americas to the coast of China, *Maris Pacifici's* errors of scale show how little was known about the ocean. Indeed, it would not be until the last of Cook's three voyages to the Pacific returned home in 1780 that accurate maps of the region would finally be completed. Each of the maps described above will be displayed in the *Australian Journeys* Gallery, currently under development.

Michelle Hetherington
Curator



Map 4. *Maris Pacifici*
Abraham Ortelius, Antwerp, Latin text 1595
Hand-coloured copper engraving; 345x500 mm
IR 4096.0001
Photo: George Serras