

# The Winchester Cathedral Blaeu Globes

by Andrew Payne

## Introduction

The Winchester Cathedral Blaeu Globes are of exceptional historic and cartographic importance [1]. The pair was purchased for £50 on the instructions of Bishop Morley in the latter half of the 17<sup>th</sup> century. £50 was a very considerable sum. Maps and globes were not just beautifully executed works of information; they were designed to impress, politically and commercially. In 1660 as Charles II and the Dutch Republic entered into commercial and political negotiations, a group of Dutch merchants had presented Charles II with the Klencke Atlas (“the largest atlas in the world” - 1.75m tall); its purpose was to show the global reach of Dutch commercial enterprise and political power [2]. Successful commerce depended on successful navigation as well as on political power, and successful navigation depended on a profound knowledge of astronomy, which is why all globes came in pairs, - a terrestrial one and a celestial one. The ownership of a pair of globes implied that the owner possessed broad intellectual and worldly horizons, was politically well connected, and had considerable wealth.

These globes are usually described as having been published by Willem Blaeu, of Amsterdam, in the first half of the 17<sup>th</sup> century, and having later been subject to minor alterations to bring them up to date. In this article I set out to show that this is a very simplistic view of their provenance and that they were almost certainly produced after 1644/5 by Joan Blaeu, Willem Blaeu’s son.

The parallel developments in cartography and world exploration are outlined to demonstrate how they help date the terrestrial globe.

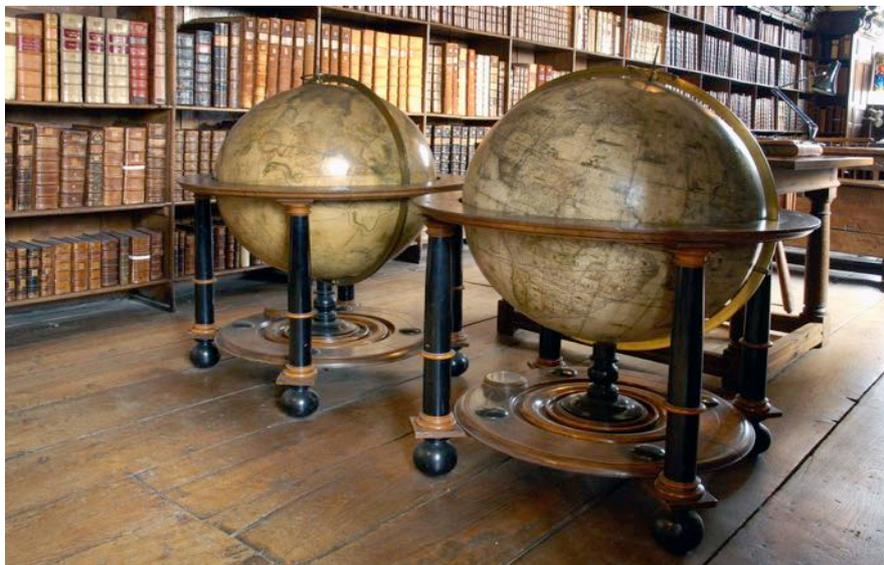


Photo © Dr John Crook

**The Blaeu Globes in Bishop Morley’s Library**

## The Globes

Willem Janszoon Blaeu (1571 – 1638), a distinguished cartographer, began publishing his 68 cm celestial and terrestrial globes in 1617 [3]. Willem Blaeu had been a pupil in the 1590s of Tycho Brahe, the Danish astronomer. His 68 cm globes were by far the largest in existence. They were constructed by covering a wooden frame with papier maché and then applying a thick layer of plaster. Lens shaped strips of printed paper, named gores, were then laid on the plaster with two circular pieces known as calottes affixed at the Poles. Because of their size, Willem Blaeu used 36 half gores and two calottes, so that 38 engravings were needed for printing one globe – a very expensive process.

Each globe bears Willem Blaeu's name. The celestial globe also bears an inscription which states that the stars are correctly positioned for the year 1640. (Because of the phenomenon of Axial Precession, stars appear to shift westwards by one degree every 71 years. Celestial globes always have to provide the date for which the stars' positions have been calculated.)

The terrestrial globe is undated but it could not have been completed until 1644/45 because parts of the coasts of Van Diemen's Land (Tasmania) and Nova Zeelandia (New Zealand) are shown; they were discovered by Abel Tasman in 1642. The east coast of the Gulf of Carpentaria is also shown; this was not discovered and surveyed until 1644, also by Tasman. Clearly, this globe was not published by Willem Blaeu. He had already been dead some six or seven years.



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### Detail of Australia

The south and west coasts of Tasmania are shown lower centre right, and a continuous west coast of New Zealand is shown in the right hand lower corner

Two other features of the terrestrial globe deserve investigation. Why is California shown as an island when earlier 16<sup>th</sup> century maps and globes, including some by Willem Blaeu, show the west coast of North America much as we know it today? Secondly, why does our globe fail to show the Torres Strait (between New Guinea and the northern tip of Australia) when Luis Vaez de Torres had discovered the Strait back in 1606? The globe shows the latter as an unmapped gap, not as a strait.

Tony Campbell [4] has classified the Blaeu terrestrial globes into three versions. These are known as the 1617 version, the 1622 version and the 1645-48 version. These are subdivided into a total of seven states by virtue of differences in what they show. The 1645-48 version (the Winchester version) is referred to as state 7. There are only three of the 1617 version known to exist, the number of the 1622 version is 18, the number of the 1645-48 version is 85.

The 1617 version shows Tierra del Fuego (the land south of the Magellan Strait) fixed to a giant southern continent, part of which Willem Blaeu calls Magellanica. The islands of Tasmania and New Zealand are not shown, little of Australia is shown, and the Baja California peninsula is clearly delineated, i.e. no island of California there.

The 1622 version differs from the 1617 version in that Cape Horn is now shown. Le Maire Strait, the narrow passage between Tierra del Fuego and what is now known as Isla de los Estados (Staten Island), which leads to Cape Horn is clearly shown.



Photo: Andrew Payne

### **Detail around Tierra del Fuego from *Hanson's Voyage Around the World 1748***

The 1645-48 version is radically different: it shows California as an island, and it also shows the western half of Australia (Nova Hollandia), part of the coast of Van Diemen's Land (Tasmania) and New Zealand's west coast.



Photo: Andrew Payne

### **Detail of California as an Island**

## **The Discoveries**

This section shows how discoveries around the world led to the cartographical changes evident on the globes.

### **Terra del Fuego and Staten Island**

Since 1520 the sea route to the Pacific shores of America had been via the Magellan Strait. Geographers believed that Tierra del Fuego was part of a great southern continent and Willem Blaeu faithfully recorded this on his first 68 cm globes. In 1616, Jacob le Maire, a son of a founder of the Dutch East India Company or VOC (Vereenigde Oost-Indische Compagnie), had missed the Magellan Strait and sailed south through the narrow passage (Le Maire Strait) between Tierra del Fuego and Staten Island, and rounded Cape Horn. The VOC tried to keep this route secret and stopped Willem Blaeu from showing this on his 1617 globes. After the discovery became public knowledge geographers asserted that Staten Land, as they called it, was integral with the great southern continent. The 1622 versions of the Blaeu globe shows this.

### **California**

How was it that early maps of North America showed California as part of the continent but that later maps showed it as a separate island? In 1578 Drake had sailed through the Magellan Strait and in 1579 explored part of the west coast of North America, landing at 38° 30' North and claiming the land, which he named Nova Albion, for England [5]. Earlier, in 1539 the navigator Francisco de Ulloa had explored the Pacific and Gulf coasts of Baja California (lower California), reached the mouth of the Colorado River, and confirmed that Baja California was a peninsula. Later 16<sup>th</sup> century explorations by the Spanish confirmed the extent of the Californian coastline. Subsequent maps of the 16<sup>th</sup> century, by Mercator, Ortelius, Willem Blaeu and others correctly showed Baja California as a peninsula. However,

in 1602 Sebastien Vizcaino [6] sailed from Acapulco with instructions to chart the coast as far north as 42<sup>o</sup>. The expedition encountered many difficulties, but one ship, in 1603, reached as far north as Cape Blanco (43<sup>o</sup>N) beyond which, the boatswain (one of six crewmen who survived) later claimed, the coast ran north-east. By this, Antonio de la Ascencion, a Carmelite friar and tireless propagandist for Spanish settlement in California, claimed they had explored the coast of an island and that the whole of California was, therefore, an island. Meanwhile, another explorer, Juan de Onate, had travelled in 1605 down the Colorado River to its mouth where he understood some natives to say that the Gulf of California was attached to the open sea by a body of water to the northwest. This confirmed Antonia de la Ascencion in his claim that the whole of California was an island. It is suggested that the Spanish, by extending the northern limits of that island to 40<sup>o</sup>N, invalidated Drake's claim of New Albion for England. In 1625, Henry Briggs, a distinguished English mathematician and astronomer published his "*Treatise of the North-West passage to the South Sea*", to which was attached a map of North America which clearly shows California as an island. Briggs asserted that this information came to him by a "Spanish Charte taken by ye Hollanders". Professor Schwartz [7] maintains that, thereafter, all European cartographers showed the Island of California on any *new* maps. There were no further voyages up the west coast of North America until the late 18<sup>th</sup> century. A Jesuit priest, Father Eusebio Francisco Kino, who mapped the region at the north end of the Gulf of California, concluded in 1709 that California was not an island, but not all cartographers drew on this information and some maps showed California as an island into the 1780s.

### **Torres Straits**

In 1606 Luis Vaez de Torres became separated from his commander in the Pacific, crossed the ocean westwards and eventually sailed through the 97 mile wide strait, now named after him, between Australia and New Guinea [8]. This strait does not appear on any of the Blaeu maps or, indeed, on any world maps for more than 150 years! The apparent reason for this is that Torres' account of his voyage was just filed away in the archives. His account came to light between 1762 and 1764 when the British occupied Manila. Alexander Dalrymple, the Scottish hydrographer and Fellow of the Royal Society came across Torres' account amongst numerous captured documents and in 1767 published *An Account of the Discoveries Made in the South Pacific Ocean Previous to 1764*. James Cook, setting out in 1768 on his first voyage of discovery took this information with him and duly passed through the reef strewn Torres Strait in 1770 [9].

### **Australia**

In 1602 the VOC had been founded and during the next century the company became the most powerful trading company in the world [10]. Batavia, modern day Jakarta, was the trading centre of the VOC, but ships could take a year and more making passage from Europe to Batavia, travelling up Africa's east coast, before crossing the northern Indian Ocean. In 1611 Hendrik Brouwer [11] reached Batavia after a seven month voyage. From the Cape of Good Hope he had run *due east* for 3000 miles at a latitude of 36<sup>o</sup>S then turned north. He had enjoyed a good westerly wind through an open ocean. From this time Dutch trading vessels followed this route and, inevitably, sighted the west coast of Australia. Dirk Hartog made landfall on Hartog Island, 26<sup>o</sup>S, in 1616, and so, by default, began the mapping of the west coast of Australia, an unappealing place inhabited by primitive peoples. Determining longitude was always problematic; by turning north on sight of land, mariners were much more confident of their position. In 1627 Pieter Nuyts, sailing too far to the south, overshot the mark, and found himself in the Great Australian Bight and had to return hundreds of miles along the southern coast of Australia. And so was mapped another part of the Australian coastline, too late for Willem Blaeu's 1622 version.

## Tasmania

In the 1630s van Diemen, Governor-General of the Dutch East Indies, determined on a complete exploration of the unknown South Land. In 1642 Abel Janszoon Tasman and his navigator Frans Jacobsz Visscher set sail from Batavia for Mauritius. It is a salutary lesson in the navigational skills of 17<sup>th</sup> century mariners that in order to explore Australia they had to travel so far west. The reasons were that the latitude and longitude of Mauritius were thought to be well known, that fresh water and supplies could be picked up there, and from there they could proceed south to the 50<sup>th</sup> parallel in confidence before turning east. In the event they reached Mauritius in just 22 days. Tasman [12] noted in his journal, "By our reckoning we were still 200 miles to the east of Mauritius when we saw it." That is an error of about 3.5<sup>o</sup> of longitude. Travelling east in the Roaring Forties (further south appeared perilously stormy) on the 24<sup>th</sup> November, they first sighted land, the south western coast of Tasmania. Cautiously they rounded the southern point and eventually on 3<sup>rd</sup> December they launched two longboats to land on the eastern coast of the island. Stiff winds from the south-east prevented either boat from reaching the shore where the surf was too dangerous for landing. Tasman's journal records, "We ordered the ... carpenter to swim ashore by himself with the pole and the Prince's flag ... we made him set up the said pole with the flag at the top in the earth before a decaying tree ..." So ended Tasman's discovery of Tasmania. The carpenter's name was Pieter Jacobsz.

## New Zealand

From there they headed east and nine days later sighted land, the South Island of New Zealand's west coast. Sailing north-eastwards they reached a bay on the north coast of South Island. Here the Maoris in their war canoes attacked one of the ships' longboats, killing three of the crew and mortally wounding a fourth man. Tasman made no further attempt to land. He named the new land "Staten Land in honour ... of the States General, *and also because it may be that this land is joined to Staten Land ...*" (near Cape Horn; my italics). They sailed north missing Cook's Strait and in due course found their way to the Tonga islands before returning to Batavia in June 1643, having, in effect, circumnavigated Australia, without sighting any of its eastern coastlines. Tasman named this new southern land Nova Hollandia. That same year Hendrik Brouwer, in sailing round Cape Horn, sailed around Staten Land proving it to be an island [13]. Tasman's Staten Land was renamed Nova Zeelandia.

Tasman had accomplished very little as far as the VOC were concerned; they were seeking gold, silver and commerce. He brought back nothing. In 1644 Tasman and Visscher explored the north western coast of Australia and the Gulf of Carpentaria carefully charting the shoreline. They actually got into the mouth of the Torres Strait but because of the scattering of islands and its numerous reefs failed to discover the passage. His charts showed no shoreline but most mariners and geographers would believe, for another 125 years, that New Guinea and New Holland formed one land mass.

Coronelli's globe of 1681 shows New Holland clearly separated from New Guinea.

## Who published the Winchester Cathedral Blaeu Globes?

So, who published our Blaeu globes? These Blaeu globes were very valuable at the time. Assuming a high survival rate for these globes, because they were so valuable, the number of terrestrial globes produced between 1617 and the 1620s was probably in the twenties or thirties, possibly only four or five a year. This production rate would mean that most of the 1645-48 globes would have been produced between about 1648 and the late 1660s. Most

of them would not have been updated or revised by applying overlays, they would have been produced in that form, with new plates for California, Australia, New Zealand and Tierra del Fuego. This means that Willem Blaeu's successor, his son Joan, produced them, saving himself some considerable expense by not changing Willem Blaeu's name on the globe. Numerous maps were published under the name of Willem Blaeu [14] throughout the 1640s and 1650s. In the mid 1640s Stefano Scolari, a highly skilled Venetian printer, published a set of four Willem Blaeu maps (Europe, Asia, Africa, America) dating from about 1612 to the 1620s using his own plates – in other words making copies of Blaeu's work. These copies are of great historical and cultural importance even today. As late as 1665 Joan Blaeu presented a wall map *Nova Totius Terrarum Sive Novi Orbis Tabula* to the Papal Ambassador to Venice. The copy is signed by Willem Blaeu in the form of a dedication to the Papal Ambassador. Willem had been dead for 27 years! Joan Blaeu continued his work as cartographer until 1672 when fire destroyed his studio and his business. He died the following year.

It seems very unlikely that many owners of the 1622 version would have sent their highly valuable globes halfway across Europe for an updated overlay, nor does it seem feasible that the Blaeus would have kept large numbers of highly valuable completed globes in stock at any one time and applied updated overlays to them in order to sell them. It is worth noting that, in 1648, Joan Blaeu published his *Nova et Accuratissima Terrarum Orbis Tabula* (an atlas) which incorporated both Tasman's discoveries and the Island of California. He has made sure that his atlas and globe are in agreement.

The celestial globe was probably first published around 1622 by Willem Blaeu and continued to be published during Joan's life time.

## Conclusion

As has already been shown, navigational skills in the 16<sup>th</sup> and 17<sup>th</sup> centuries were somewhat unreliable. So, though the locations of Van Diemen's Land and of Nova Zeelandia as described by Tasman, and determined by Visscher, were remarkably good, within 30 or 40 miles, of their correct positions, it was not until the voyages of Captain James Cook that skilled mariners had any more confidence in them than in their own abilities to reckon where they were.

Joan Blaeu considered his father's globes as a continuing asset, producing his updated version of them regularly for about 20 years. Only a very close examination of our terrestrial globe would show whether or not selected gores have been overlaid. This would be a job for the restorers should such work ever be undertaken. The likelihood, however, is that the globes have not been updated and the gores are laid directly onto the plaster.

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Andrew Payne is a voluntary guide at Winchester Cathedral and also at The Vyne, a National Trust property near Basingstoke.

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