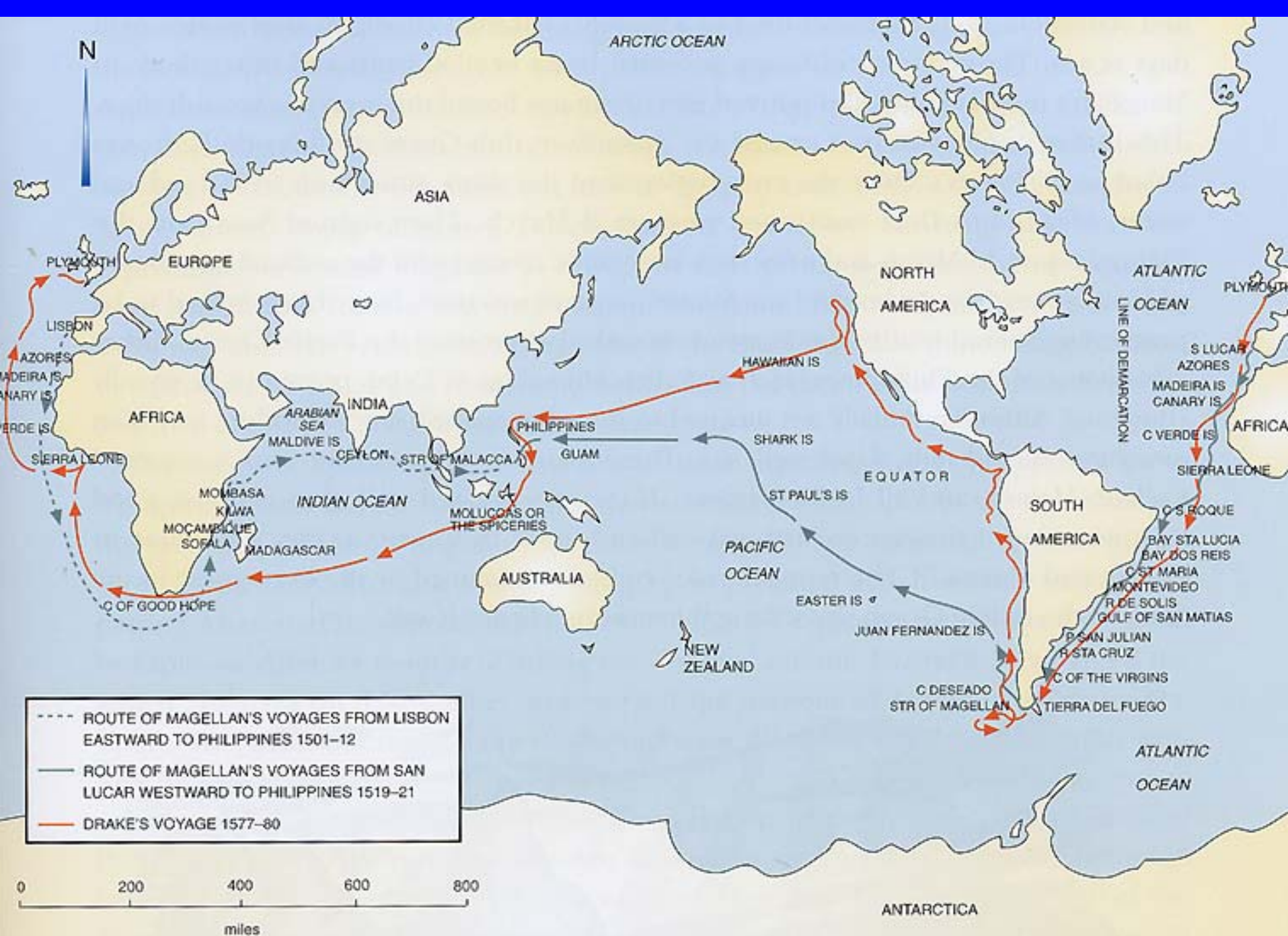


The European Discovery of Australia

Edward P.J.van den Heuvel
University of Amsterdam
The Netherlands



N

ARCTIC OCEAN

ASIA

EUROPE

NORTH AMERICA

ATLANTIC OCEAN

AFRICA

INDIA

AFRICA

PLYMOUTH

LISBON

MADEIRA IS.

CANARY IS.

VERDE IS.

SIERRA LEONE

MOMBASA

KUWA

MOÇAMBIQUE

SOFALA

MADAGASCAR

INDIAN OCEAN

ARABIAN SEA

MALDIVE IS.

CEYLON

STR OF MALACCA

PHILIPPINES

GUAM

MOLUCCAS OR THE SPICERIES

AUSTRALIA

NEW ZEALAND

PACIFIC OCEAN

EQUATOR

HAWAIIAN IS.

SHARK IS.

ST PAUL'S IS.

EASTER IS.

JUAN FERNANDEZ IS.

C DESEADO

STR OF MAGELLAN

LINE OF DEMARCATION

S LUCAR

AZORES

MADEIRA IS.

CANARY IS.

C VERDE IS.

SIERRA LEONE

C S ROQUE

BAY STA LUCIA

BAY DOS REIS

C ST MARIA

MONTEVIDEO

R DE SOLIS

GULF OF SAN MATIAS

P SAN JULIAN

R STA CRUZ

C OF THE VIRGINS

TIERRA DEL FUEGO

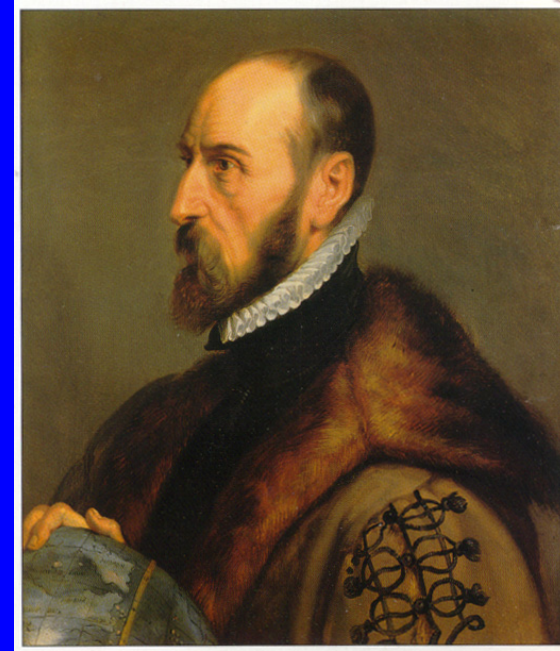
ATLANTIC OCEAN

ANTARCTICA

The great Flemish cartographers



Gerardus Mercator (Gerard Kremer 1512-1594), father of atlas and globe making. With his teacher Gemma Frisius made the first terrestrial and celestial globe (1536, Leuven, Belgium). Invented "Mercator projection". Fled 1552 to Duisburg for persecution as Protestant.



Abraham Ortelius (1527-1598), made the first World Atlas: *Theatrum Orbis Terrarum*, 1570, *Antwerp*, 7300 copies sold in 31 editions 1570-1612.

Was encouraged to this by his teacher Mercator, who published his own first atlas only in 1578 (later expanded to the Mercator-Hondius atlas).



Abraham Ortelius' Atlas, 1570, Antwerp



Abraham Ortelius' Atlas, 1589, Antwerp



Flemish-born Calvinist Minister, astronomer and cartographer (1552-1622). Fled Brussels for Amsterdam in 1585.

Introduced “Mercator Projection” for navigational map making.

Took the initiative for the first Dutch “Schipvaert” to the Indies (1595-1597) led by captains Cornelis de Houtman and Dirk Janszoon Keijzer, ships:

Mauritius, Hollandia, Amsterdam and Duyfken (249 crew, 89 returned)



Before departing to the Indies (1595) the sailors were carefully instructed by Plancius in geography and astronomical observing techniques

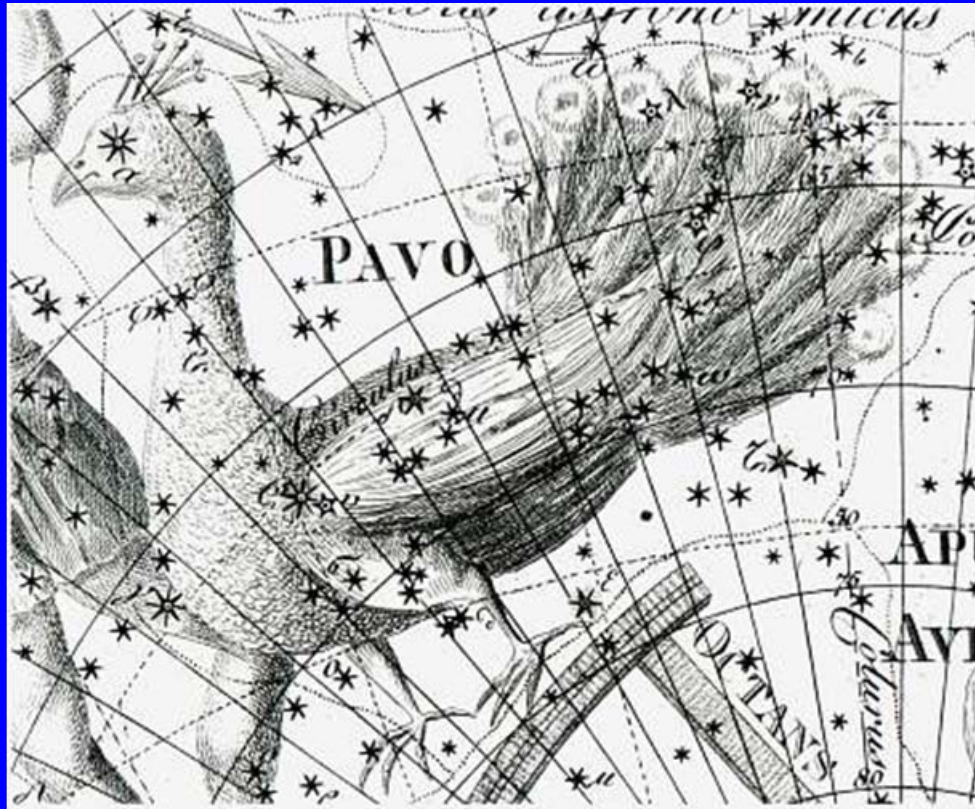
Oldest surviving celestial globe, 1600, by Jodocus Hondius (1563-1612), showing the 12 new constellations around the celestial southern pole introduced by Plancius on the basis of precise measurements of the positions and magnitudes of 136 out of the 150 stars brighter than 5th magnitude by Frederick de Houtman and Dirk Janszoon Keijzer in 1595-1597 (Amsterdam, Maritime Museum)



The new constellations often have names of “exotic” animals or people, e.g.:

Chameleon, Pavo (the Peacock), Apus (bird of Paradise), Dorado (Goldfish), Indus (Indian), Tucana (Tucan), Volans (Flying Fish), Grus (Crane), Hydrus (Small water-snake), Phoenix, Musca (Fly). Before that, in 1592, Plancius had already introduced the new constellation Columba (the pigeon).

Pavo after Plancius' 1598 atlas



The new constellations and stellar positions (including the errors, e.g.: Beta Pavonis was confused with a nearby fainter star) were published in Bayer's *Uranometria* (1603, Augsburg). Those with Frederick de Houtman's (1602) new measurements of 303 Southern stars (used for globes by Blaeu), were obtained by Kepler from Bayer's estate, and published in the "*Tabulae Rudolphinae*" in 1627.



Rembrandt (1606,
july 15- 1669, oct. 4)

Self portrait 1640
(National Gallerey,
London)

On 26 february of the
year Rembrandt was
born in Leiden, captain
Willem Janszoon was
the first European
recorded to have set
foot on Australian soil



The Duyfken

Built in 1594; went under in 1608, after battle to “liberate” the southern Moluccas from the Portuguese.

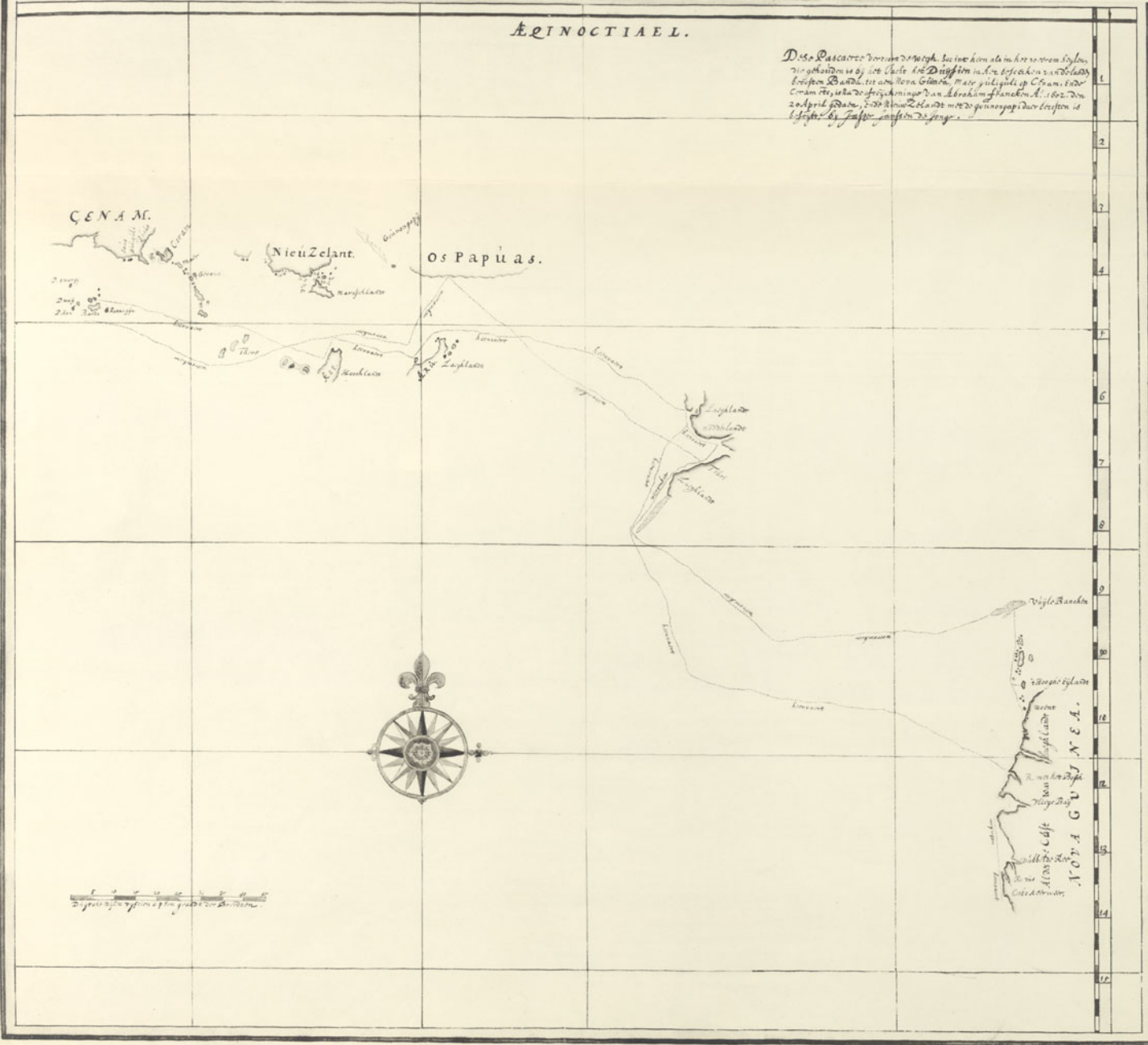
23 April 1601 left Netherlands for Indies with 4 other ships. Size: 50 tons, ~20 crew. Returned 1603. Third trip: 18 dec 1603, captain Willem Janszoon.

“Dese pascaert verthoont de wegh, soo int heen als weerom seylen, die gehouden is bij het jacht Duyfken in het besoecken van de landen beoosten Banda, tot aen Nova Guinea”

26 February 1606 , Captain Willem Janszoon went ashore at Cape York

ÆRINOCTIAEL.

Ditte Pascaertt' vermaent de reysgh' die toe hem al in het verstem bylen
 de ghaerden is by die Chete het Duyffien in den byschep van de landt
 byschoep Baudet in den verra Gambia, Mate gelyckelyc van Cam. ende
 Coninck. vande de gelyckinige van Abraham Francklin A. 1662. Den
 24 April 1666. Ende Nieu Zelandt met de gelyckinige die byschoep is
 byschoep by Janssen van de gelyckinige.



THE DISCOVERY OF AUSTRALIA BY THE YACHT HET DUYFIEN, 1666. — FROM THE SECRET ATLAS OF THE EAST INDIA COMPANY, c. 1670



Torres Strait, about 150 km wide and very shallow (mostly ≤ 20 meter deep) and infested with reefs, was during the Ice ages (up to $\sim 9\,000$ years ago) a land bridge. Was discovered in summer 1606 by Spanish explorer Luis Vaez de Torres on his way from Peru to Manila via the Moluccas. His journal was discovered in Manila in 1769 by Alexander Dalrymple.

First map of Australia
(Cape York)
published by an
Englishman,
William Dudley,
1623, based on Willem
Janszoon's discoveries



NOVA TOTIVS TERRARVM ORBIS GEOGRAPHICA AC HYDROGRAPHICA TABVLA. Auct. Henr. Hondio.



Worldmap by Henricus Hondius (1597-1651) Amsterdam 1630



Batavia (founded 1608) around 1640

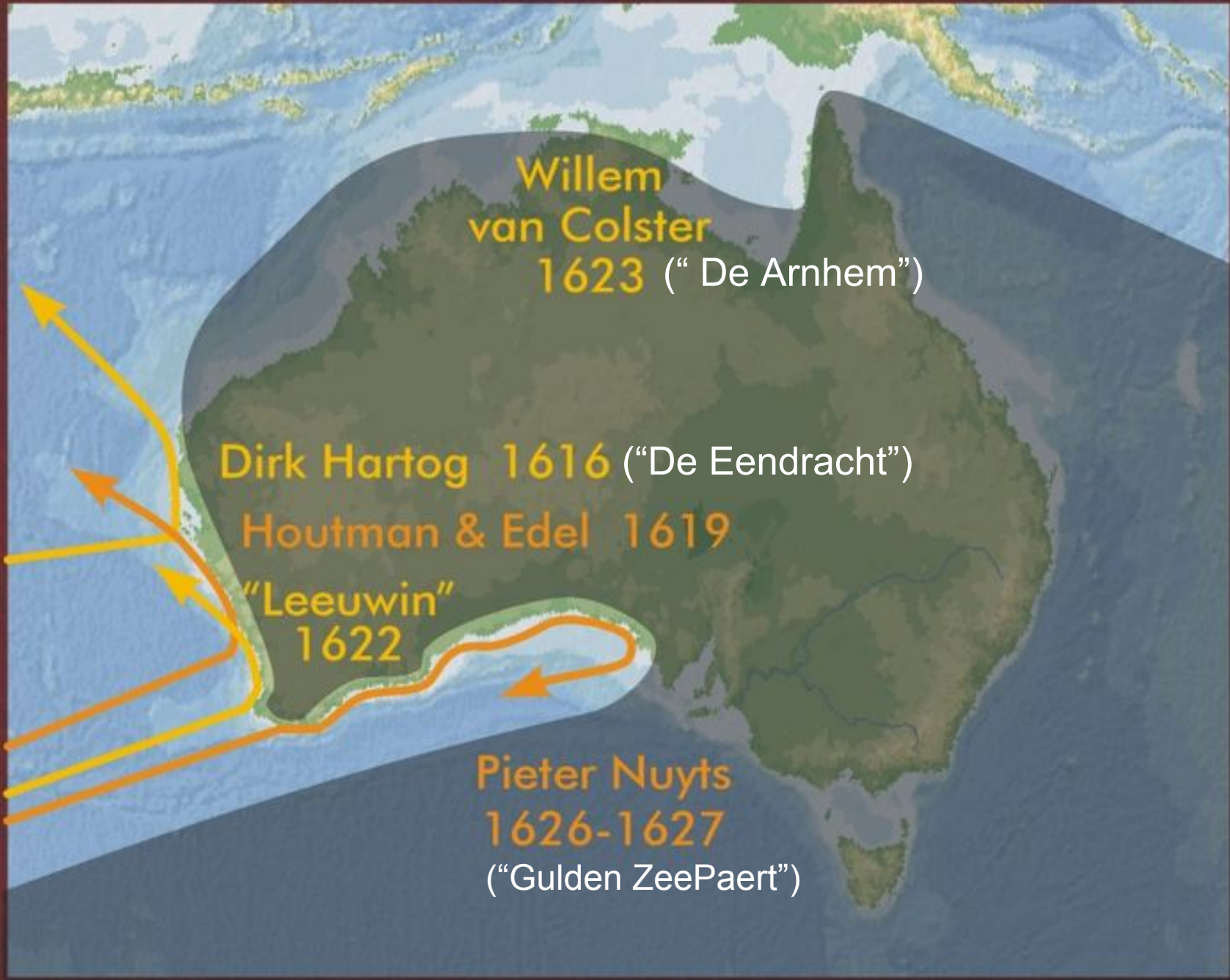
De “Brouwer Route” from Cape of Good Hope to Batavia

In 1611 Hendrik Brouwer discovered a new route that brought ships in 6 months from Cape of Good Hope to Batavia, in stead of the 14 to 18 months of the “old” route along East Africa and India.

From 1616 on the Brouwer Route, for 7000 km along 40° South Latitude Eastwards, and then straight North, was compulsory for all Dutch East India Company ships.

As longitude was hard to determine, this led to a number of ships being wrecked on the Australian coast:

Tryall (1621), Batavia (1629), Vergulde Draeck (1656), Zuytdorp (1712) and Zeewijk (1727). Three more ships also must have disappeared there, but were not (yet) found.



Willem
van Colster
1623 (“De Arnhem”)

Dirk Hartog 1616 (“De Eendracht”)

Houtman & Edel 1619

“Leeuwin”
1622

Pieter Nuyts
1626-1627
 (“Gulden ZeePaert”)

The Batavia Horror Story (1629)

The large new ship Batavia, with almost 300 persons and some \$40 million in gold and silver on board, was nightly wrecked on the Houtman Abrolhos in June 1629.

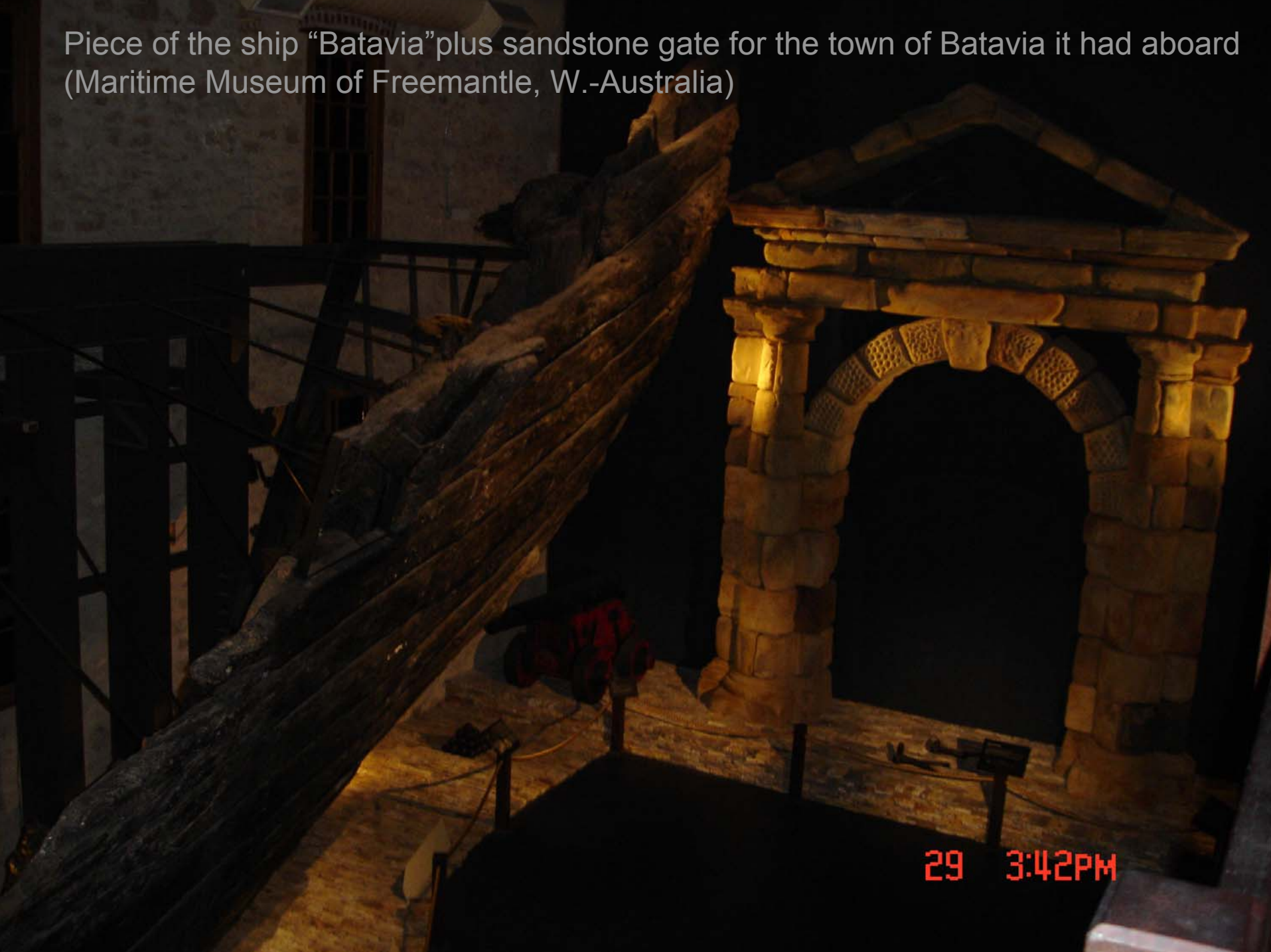
Practically all people survived, and they were able to secure a sizeable amount of food and part of the money, on one of the islands.

While captain *Pelsaert* went with some 40 crewmembers in a small boat to Batavia to get help, the “under-merchant” *Jeronimus Cornelisz* (a bankrupt pharmacist from Haarlem), whom he had left in charge, devised and carried out a mutiny plan. With a group of some 40 mutineers he murdered a large fraction of the survivors, with the aim that when the captain would return, he could conquer the rescue ship, kill the (small) crew of the ship and go off to France with the mutineers and the \$40 million.

Due to the escape of a group of some 50 survivors to another island the plan failed and when Pelsaert returned after 5 months, Cornelisz and his mates were captured, tried “in court” on the island and hanged.

Two of the mutineers that were too young to be hanged were put ashore by Captain Pelsaert at a place where he had found water. They were left with food and tools *and became the first two white settlers of Australia.*

Piece of the ship "Batavia" plus sandstone gate for the town of Batavia it had aboard
(Maritime Museum of Freemantle, W.-Australia)



Piece of "Batavia"



29 3:43PM

Netherlands Rix Dollars

Rijks Daalders (Rix Dollars) make up most of the 'Batavia' bullion. They were minted in seven provinces of the United Netherlands, and in several cities of the Holy Roman Empire. Burgundian Daalders of the Spanish Netherlands are also present. These coins were in general circulation in the United Netherlands during 1628-1629. A list of their values was issued each year by the 'Estates General' or Netherlands parliament. Seventy-one percent of the total hoard originated in the Netherlands. Of these 32% are from West Friesland, 23% Zeeland, 15% Gelderland, 13% Utrecht, 8% Overijssel, 7% Holland and 2% Friesland.



Kampen



Deventer

Zwolle



Gelderland



Friesland



Friesland



Gelderland



Holland



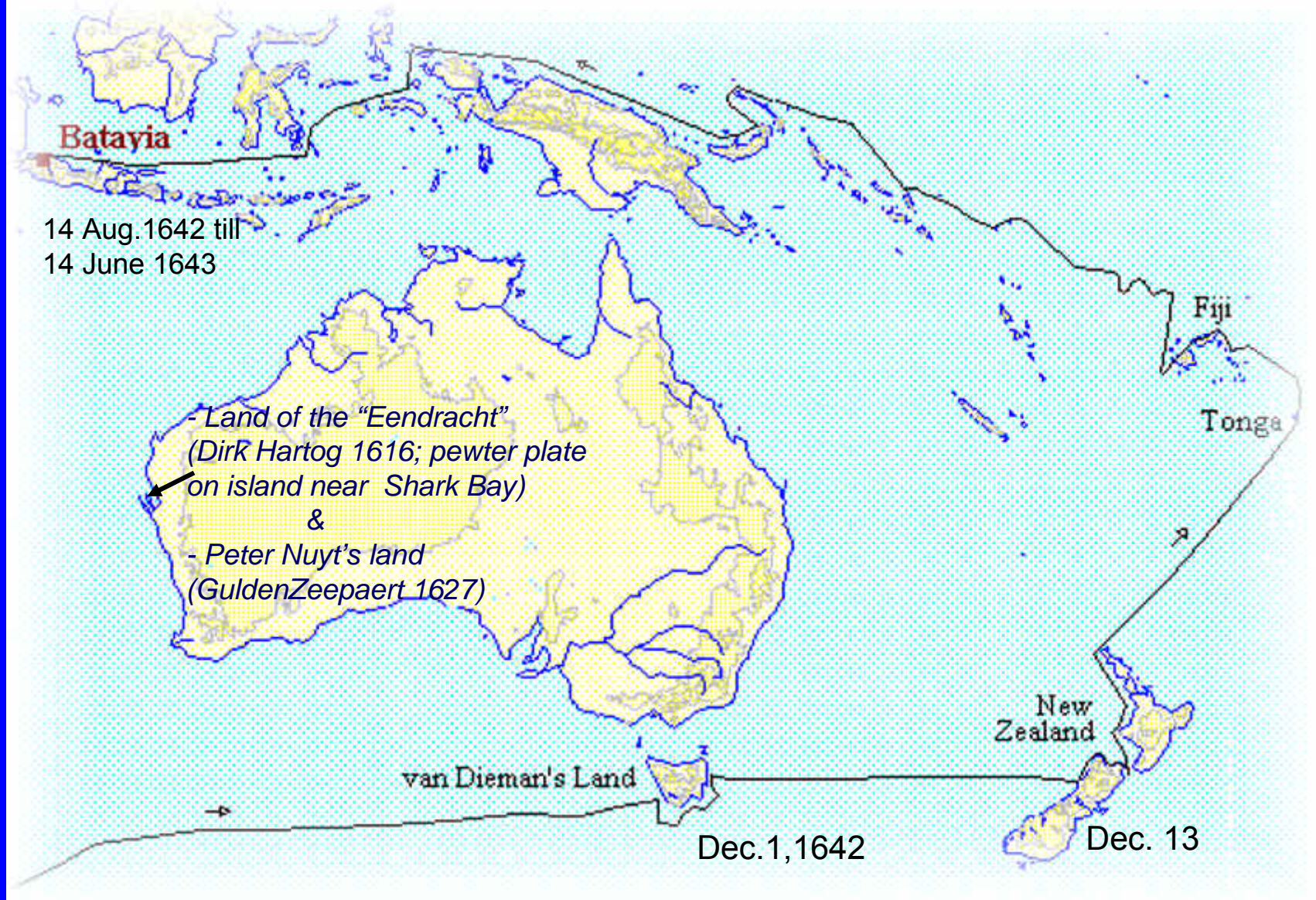
Holland



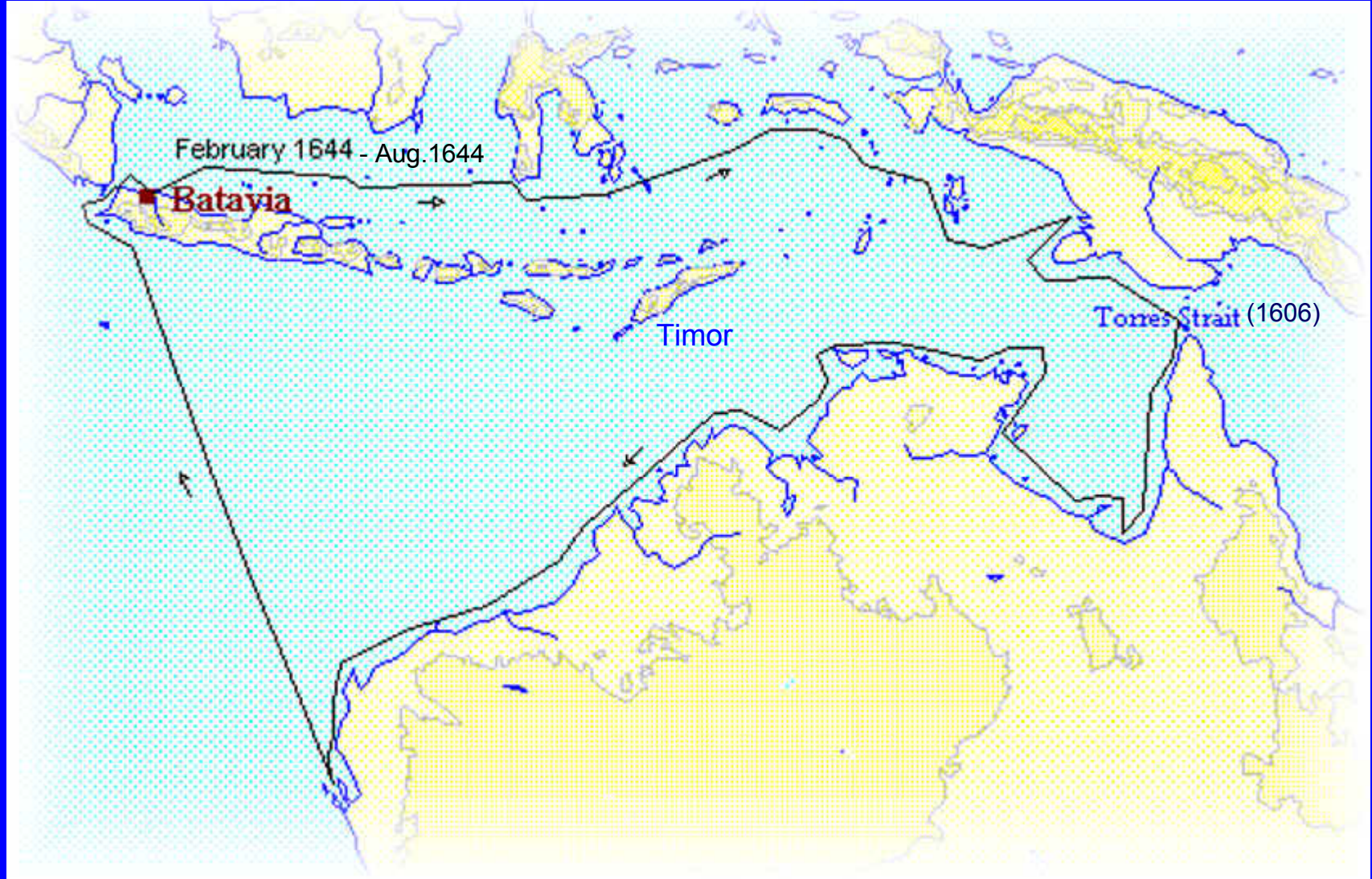
Overijssel



Brabant

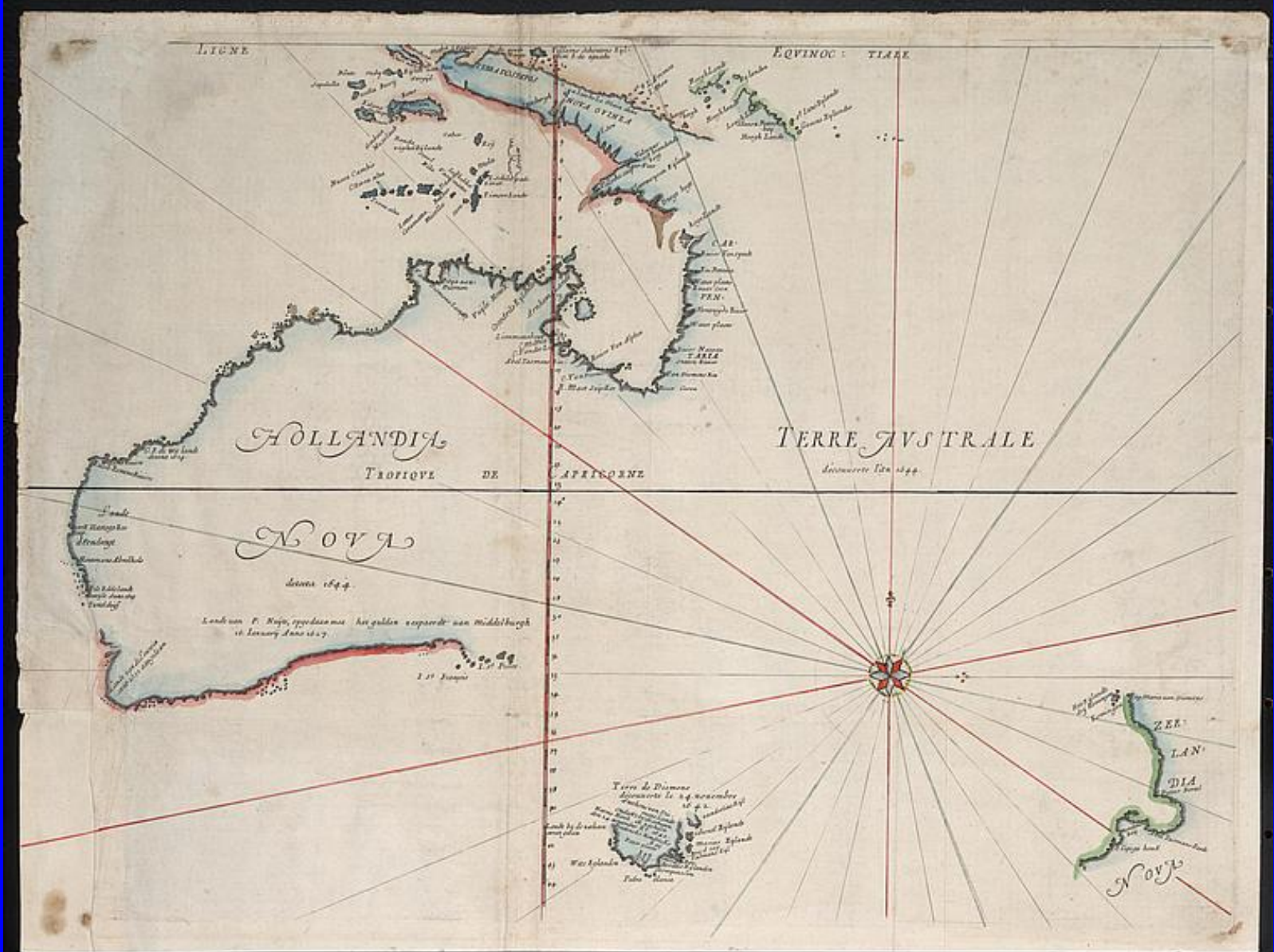


Tasman (1603-1659) and de Visser sailed in 1642 from Batavia to Mauritius (oct.8) and then along 44 deg south to the East, south of Nuyt's land . The aim was finding a passage to Chile. In 1855 Van Diemen's land was named Tasmania



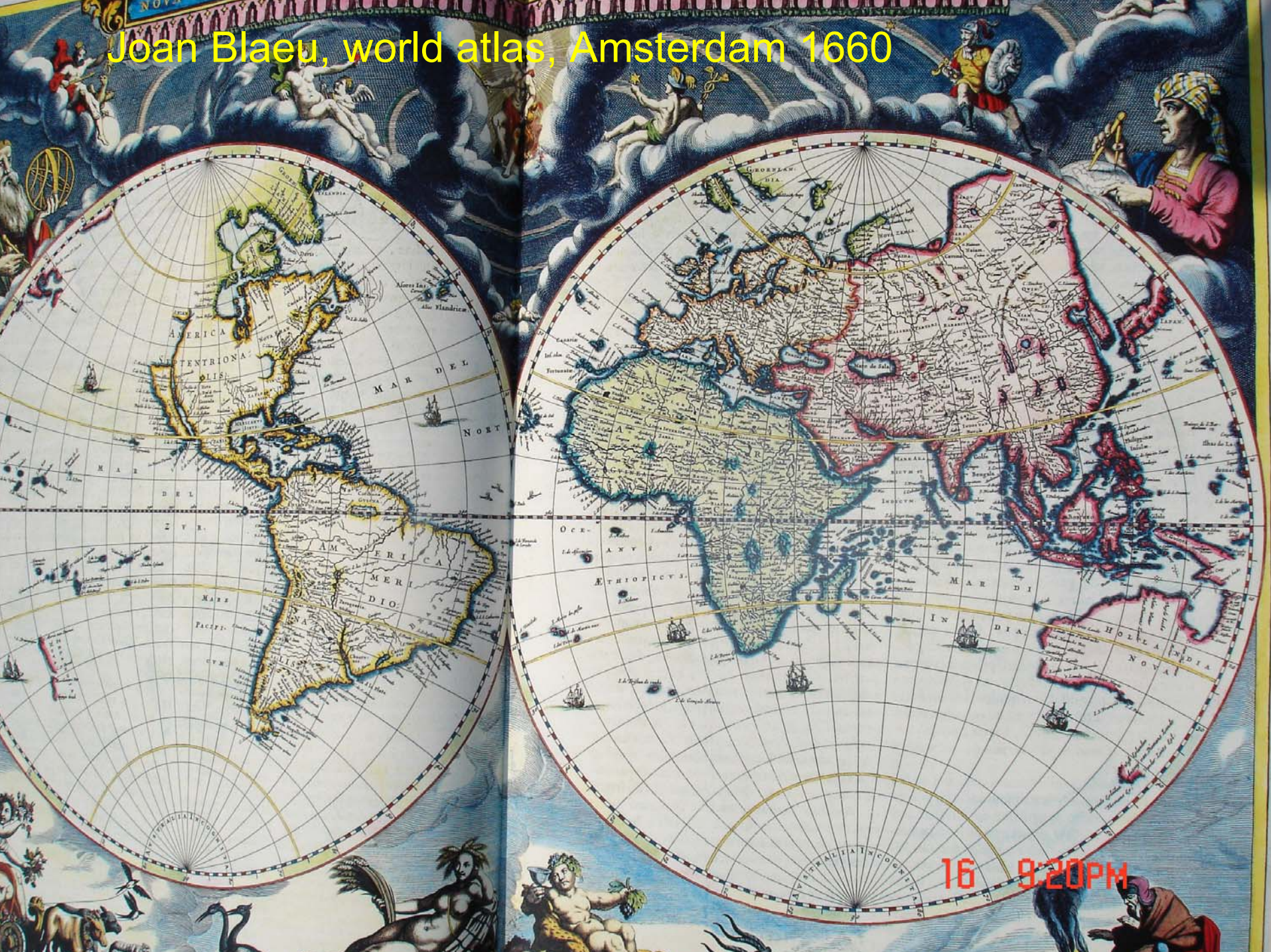
Tasman's second trip, with 3 ships. Aims were:

- (1) *to see whether van Diemen's land was connected to New Guinea, or*
- (2) *whether there was a passage south of New Guinea;*
- (3) *If there was no passage: search for part of Batavia's treasure (lost 1629)*



Hollandia Nova, Paris 1644
by Melchisedech Thevenot(1620-'92)

Joan Blaeu, world atlas, Amsterdam 1660





- W. Janszoon 1606
- D. Hartog ("de Eendracht") 1616
- F. De Houtman 1619
- J. Carstensz 1623 (C. York)
- van Colster 1623 (Arnhemland)
- P. Nuyts 1627
- A. Tasman 1642, 1644
- Blaeu atlas 1660, Amsterdam



Abel Tasman
1644

NEU-HOLLAND

Willem de
Vlamingh
1697

Tasman & Visscher 1642

VAN-DIEMENS-LAND

The last Dutch explorer of Australia:

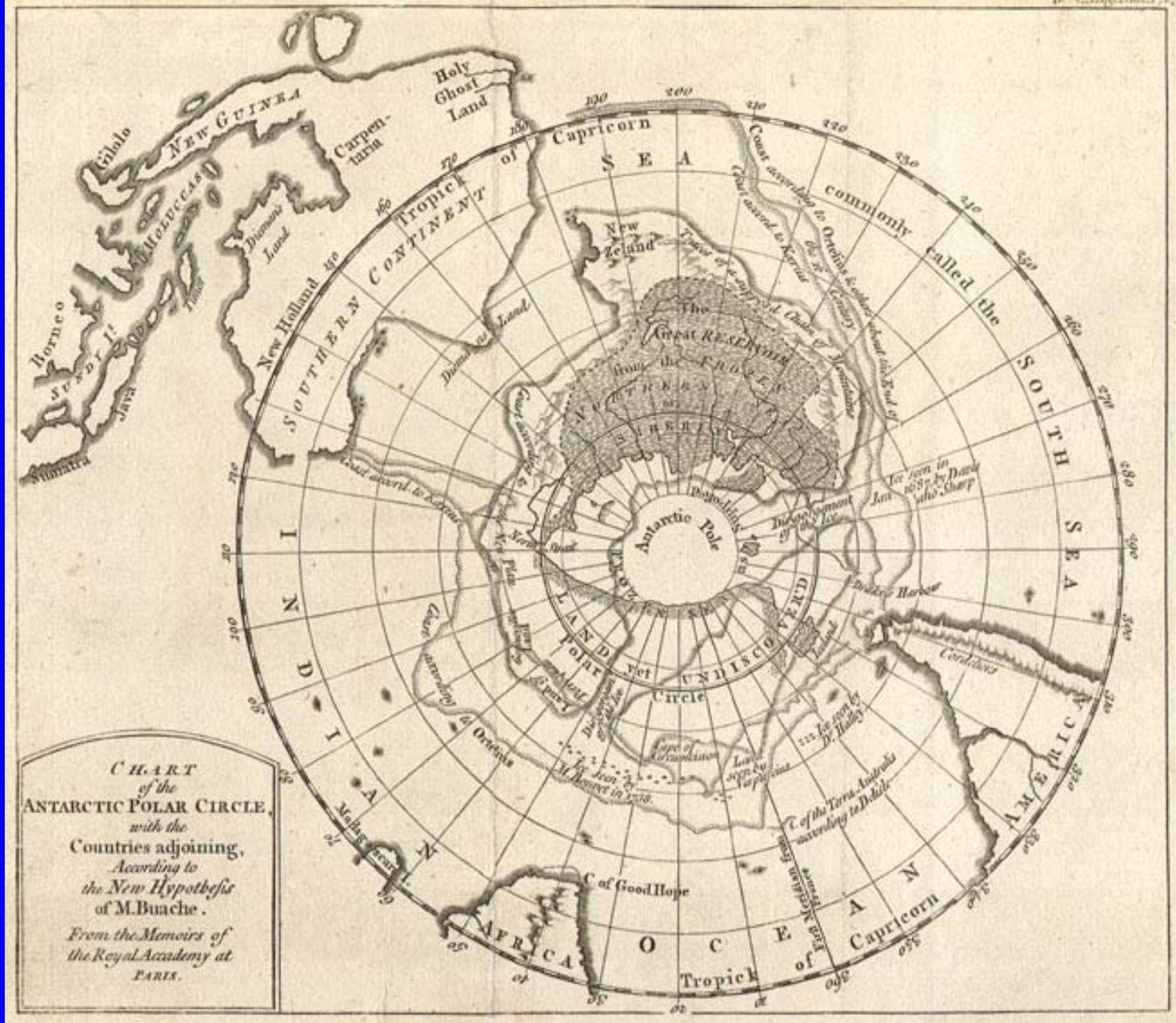
1697: Willem de Vlamingh, sent out with 3 ships from Amsterdam to search for the lost ship “Ridderschap van Holland”(1695, 1100 tons, with high VOC dignitaries and much gold and silver aboard), and to chart the West coast.

Retrieves Dirk Hartog’s (1616) pewter plate on Hartog’s Island, and replaces it with his own copy.

Discovers Swann Bay and Swann River (Perth), where the survivors of the “Vergulde Draeck” (Gilded Dragon, lost 1656) have gone ashore, but does not find anybody (7 of the 75 survivors reached Batavia, 68 stayed behind on land).

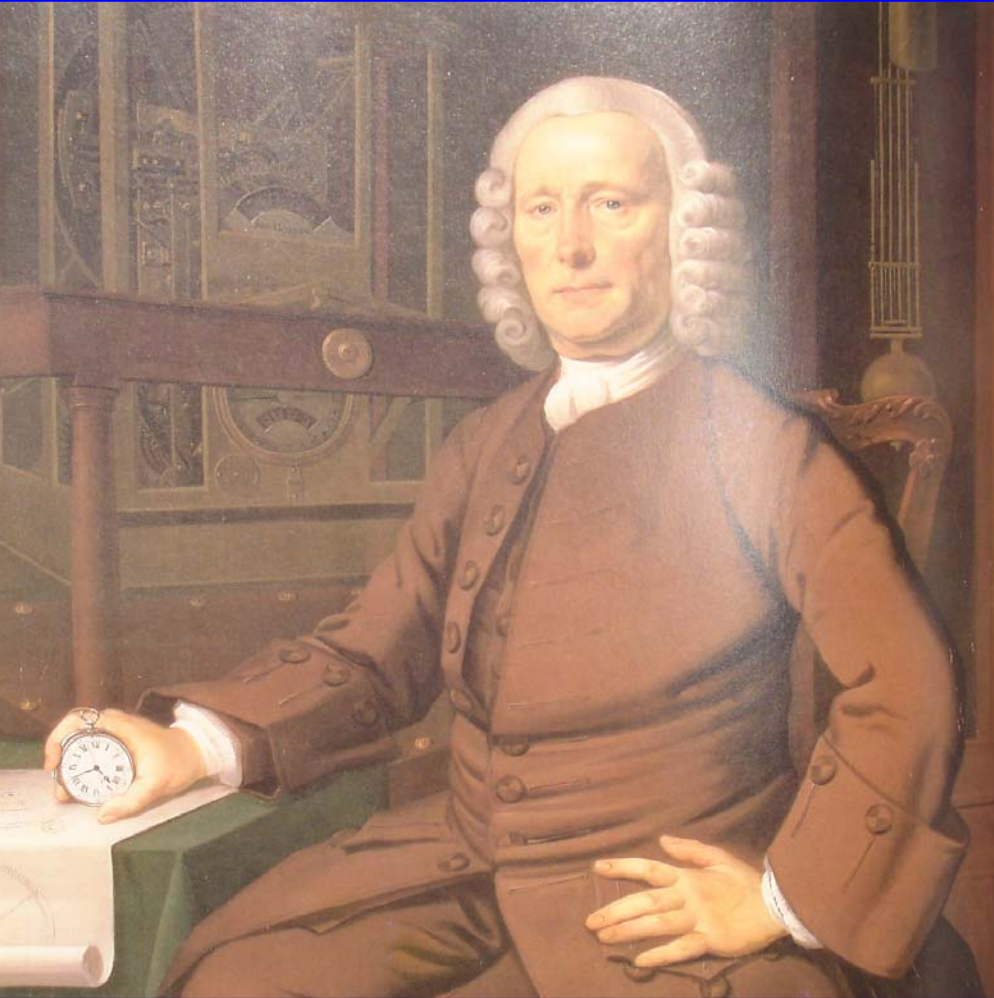
Vlamingh’s plate was brought to France by **de Freycinet (1818)**, was lost at the Academy Francaise for over a century, refound in 1940 and was given to Australia in 1946.

Dirk Hartog’s 1616 plate is in Rijksmuseum of Amsterdam.



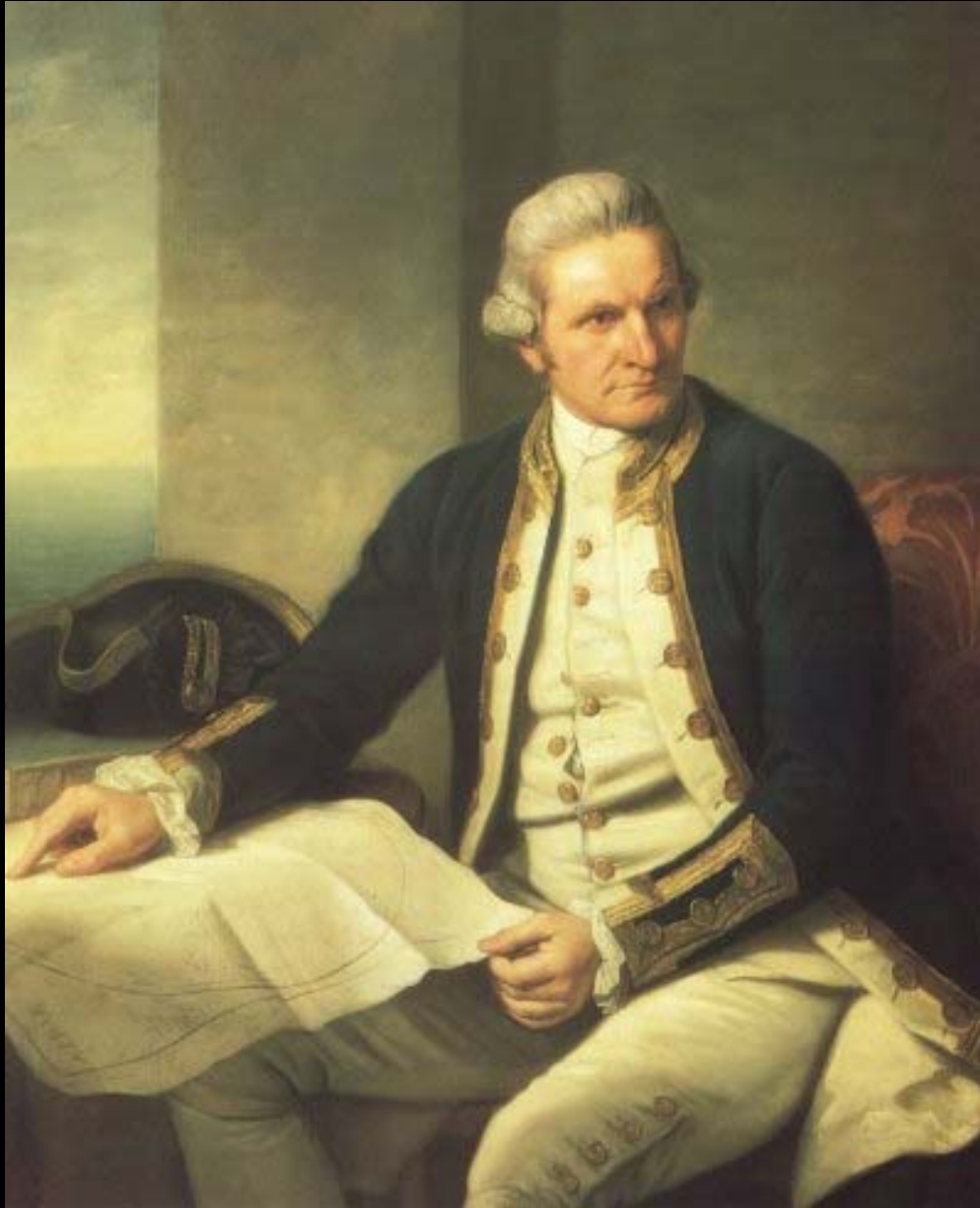
Map by Buache, Paris 1763; published by D. Henry and R. Cane

John Harrison(1693-1776)



Developed over a period of 35 years the first clocks (H2, H3 and H4) that kept time to an accuracy of ± 3 sec per 24 hours.

This allowed to determine longitude to better than 30 naut. miles after a six weeks journey to the Caribbean, allowing him to win the £ 20 000,- prize put up by the Board of Longitude in 1714, under Newton's guidance.



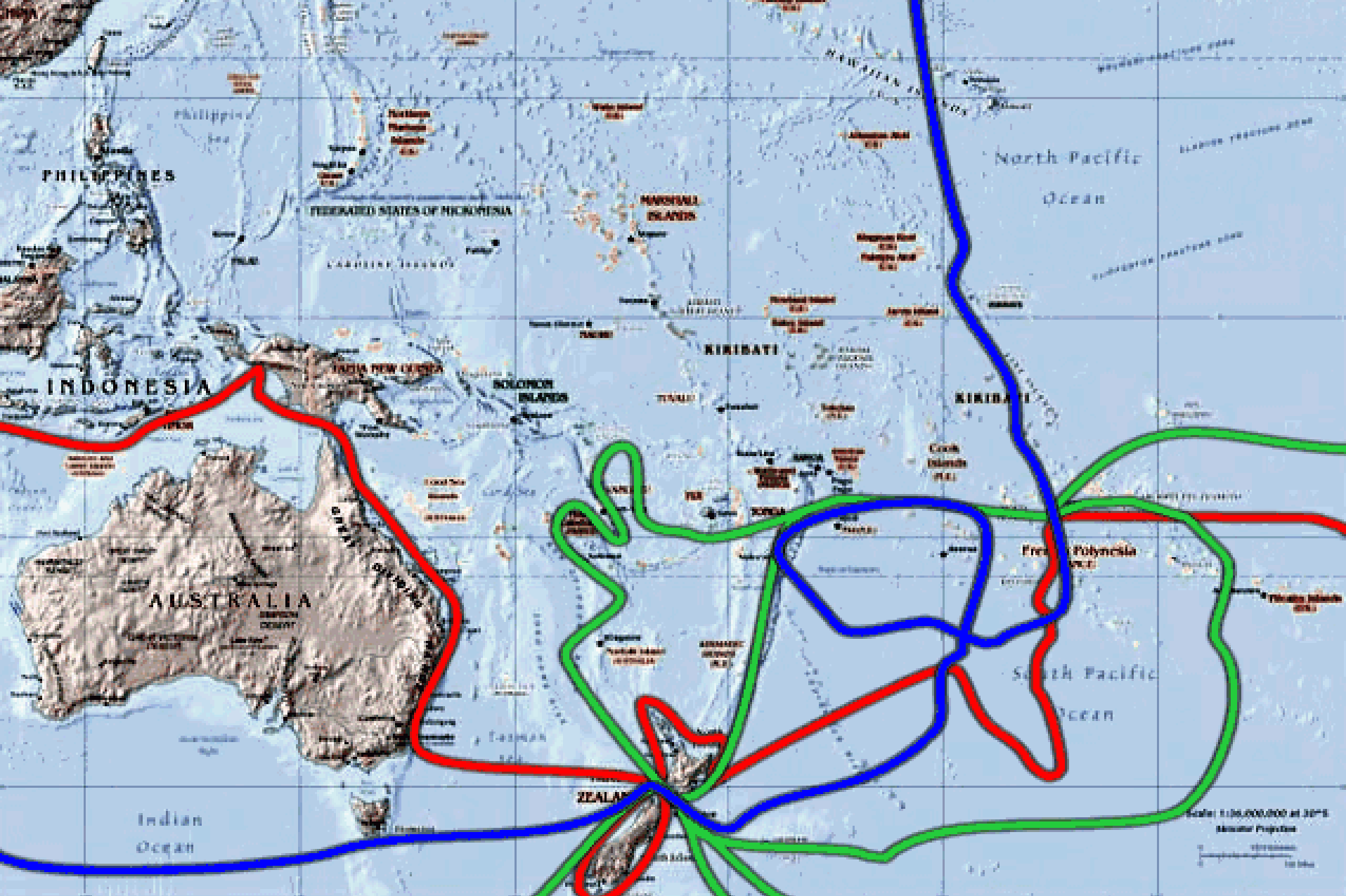
James Cook (1728-1779)

Captain Cook went in 1768 to the Pacific, to study the transit of Venus (June 3, 1769), to get the distance to the Sun.

After successfully completing the observations he completely charted New Zealand (October 1769) and sailed for Tasmania.

Inofficially, he had orders from the king to search for the rich "Terra Australis" and claim it for England. He had botanists (e.g. Joseph Banks) and astronomers with him.

He discovered the Eastern part of Australia (April 1770), landed at Botany Bay where later Sydney was to be founded.



Captain Cook's explorations: Red: 1768-71 Green: 1772-75 Blue: 1776-79



1799 British map of Captain Cook's last visit to Australia and the Pacific



Matthew Flinders
(1774-1814)

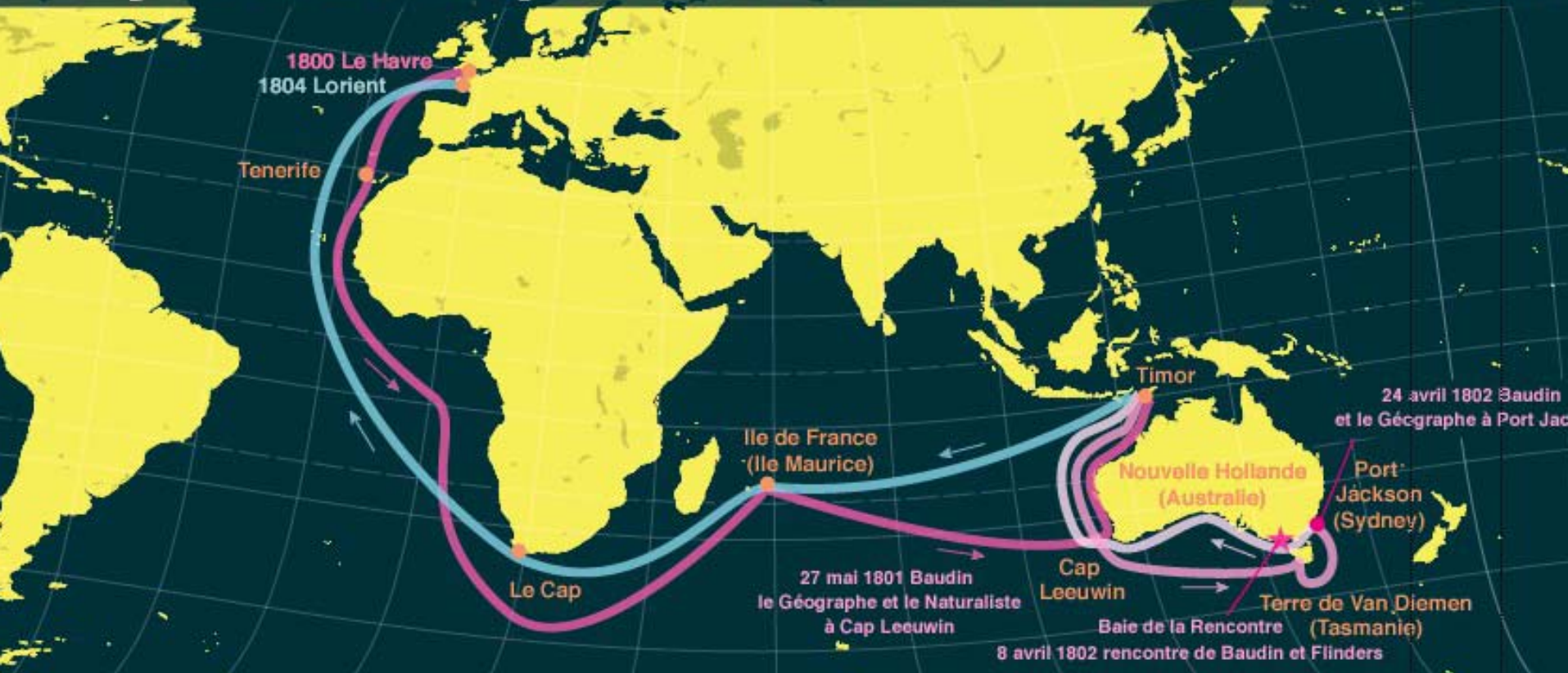
Joined the Roy.Navy at age 15. In 1791 trip to Tahiti with captain Bligh, who taught him chartmaking, astronomy and taking very good care of the highly precious clocks.

- 1798: discovered Tasmania is an island.
- 1801: set out with "Investigator" to chart Australia.
- Mapped coast from Sydney to "Encounter Bay" where on 8 April 1802 he met Frenchman Baudin, who was sent out by Napoleon. They jointly sailed to Sydney.
- Was the first to sail all around Australia. Ship decayed.
- 1803 set sail to England with new ship, but wrecked on Barrier reef. 1803 reached Mauritius; detained by French Governor for 7 years.



1810 back in England, wrote "A Voyage to Terra Australis" (published 18 July 1814; died the next day).

Trajet de l'expédition Baudin 1800-1804

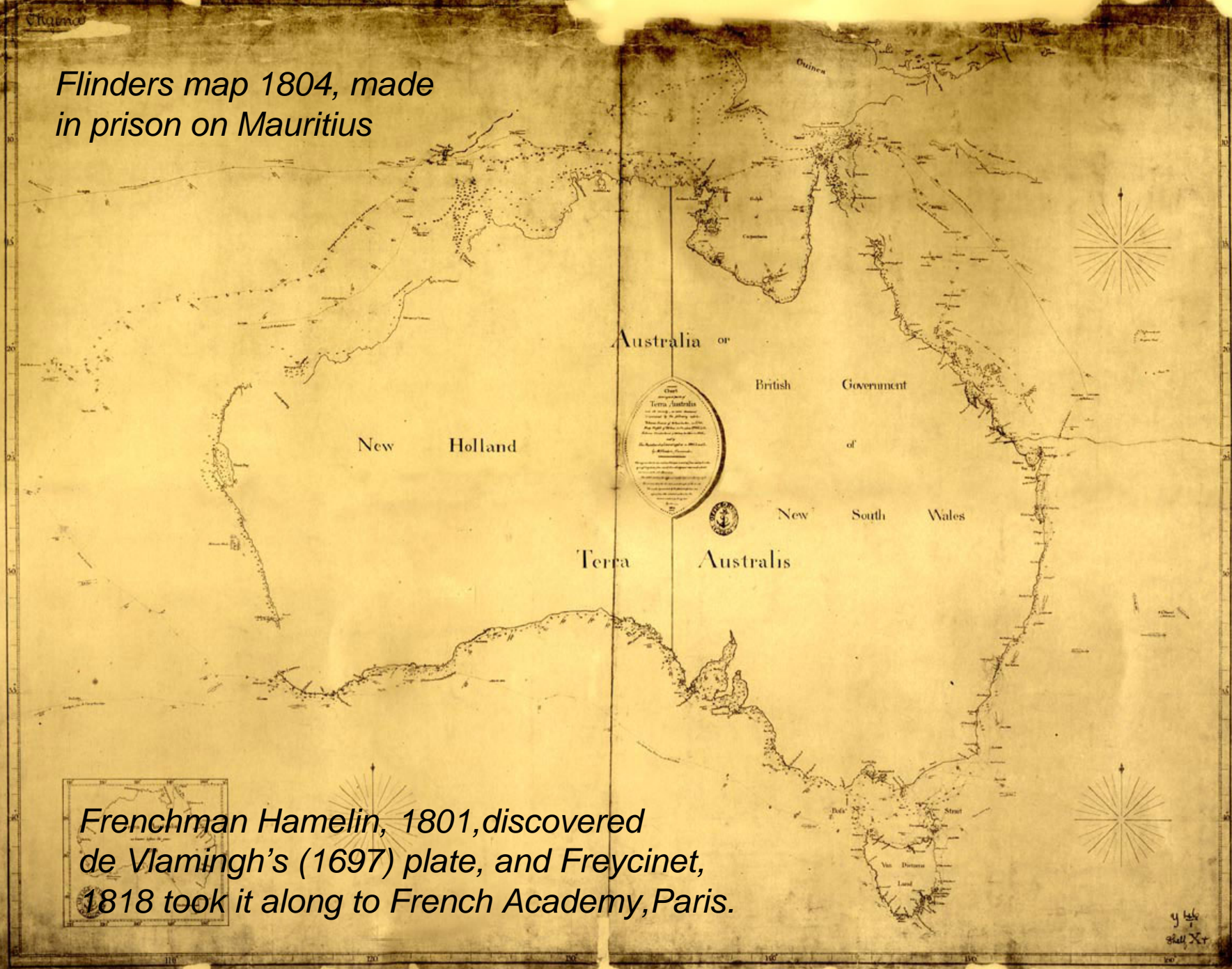


Nicolas Baudin (1754-1803)

Left France in October 1800 with “Le Géographe” and “Le Naturaliste” (Capt. J.F.E. Hamelin), sent out by Napoleon. Collected 2542 new animal species and charted 600 km of the unknown Australian South coast.

Hamelin’s crew (1801) found de Vlaming’s (1697) pewter plate on Dirk Hartog’s island and remounted it; they returned in France 1803. Baudin died in Mauritius of tuberculosis (1803).

*Flinders map 1804, made
in prison on Mauritius*



*Frenchman Hamelin, 1801, discovered
de Vlamingh's (1697) plate, and Freycinet,
1818 took it along to French Academy, Paris.*

4 44
311 X+

Conclusions:

For the European discovery of Australia we are much indebted to a number of wonderful, enterprising and adventurous people in the 15th through early 19th centuries:

Explorers:

Vasco da Gama & Magelhaes, Drake, C. & F. de Houtman, Janszoon, Torres, Hartog, Nuyts, Tasman, de Vlamingh, Cook, Flinders, Baudin and de Hamelin

Astronomers, mapmakers and watchmakers:

Mercator, Plancius, Hondius (Sr. and Jr.), Blaeu (Sr. and Jr.), the Longitude Board (Newton, Bradley and Maskelyne), and Harrison (Sr. & Jr.)