

Maritime Empires



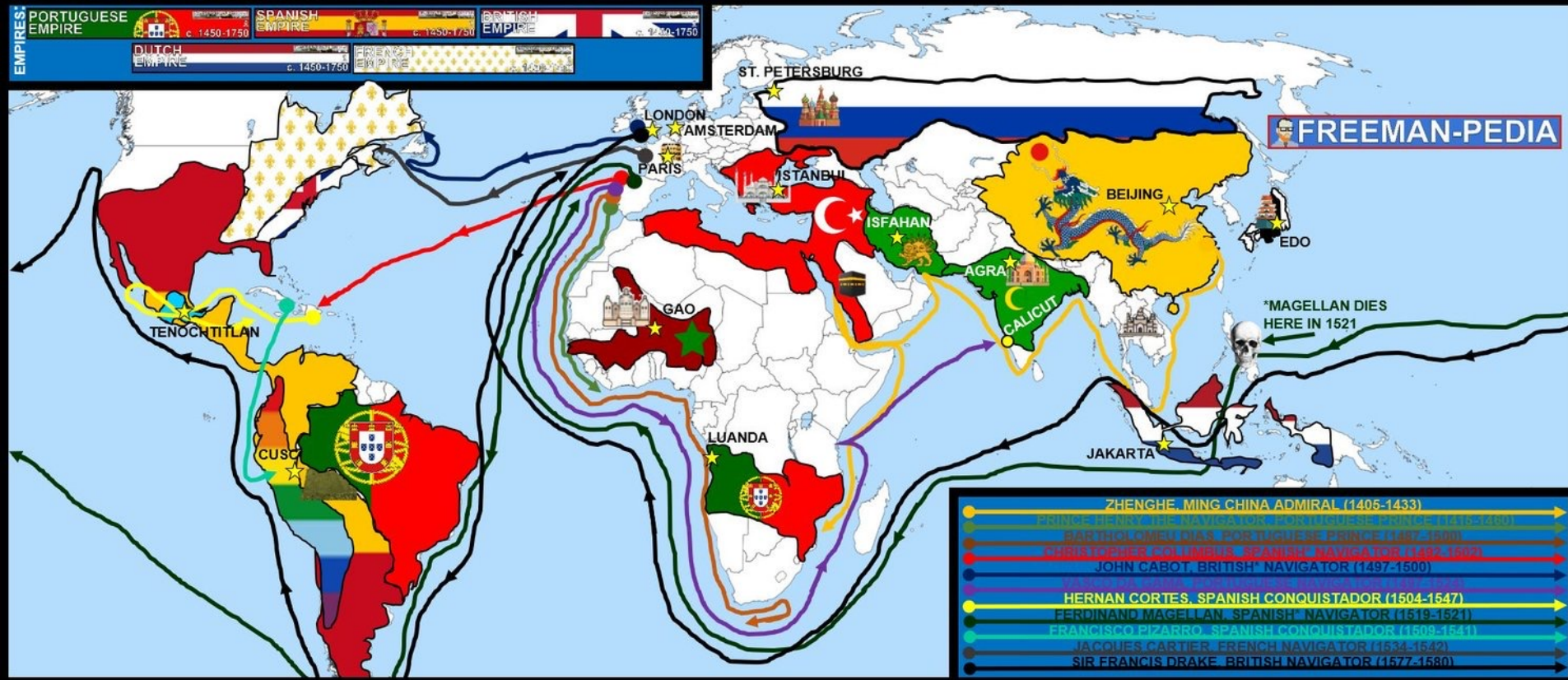
GEOGRAPHY

EARLY MODERN (1450-1750 CE)



EMPIRES:

PORTUGUESE EMPIRE c. 1450-1750	SPANISH EMPIRE c. 1450-1750	DUTCH EMPIRE c. 1450-1750	FRENCH EMPIRE c. 1450-1750
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THE EARLY MODERN

THE GRID

EARLY MODERN (1450 CE-1750 CE)

GLOBAL INTERACTIONS

MIDDLE EAST	1480 CE FALL OF CONSTANTINOPLE 1453	1570 CE SULEIMAN 1494-1566	1615 CE	1660 CE	1705 CE	1750 CE
EAST ASIA	ZHENGHE 1405-1433	MING CHINA	TOKUGAWA IYASU 1543-1616	TOKUGAWA SHOGUNATE	MANCHU INVASIONS	MANCHU EMPIRE KANGXI 1654-1722
EUROPE	PRINCE HENRY 1364-1469	RENAISSANCE	LUTHER 1483-1546	SHAKESPEARE 1564-1616	PORTUGUESE EMPIRE	SPANISH EMPIRE
AFRICA	SONGHAI	ASKIA MUHAMMAD 1443-1538	EMPIRE	TRANSATLANTIC SLAVE TRADE	NEWTON 1642-1727	VERSAILLES 1661-1713
SOUTH ASIA	GURU NANAK 1469-1546	DELHI SULTANATE	AKBAR 1542-1605	TAJ MAHAL 1632-1643	MUGHAL EMPIRE	BRITISH EMPIRE
LATIN AMERICA	INCA EMPIRE	SPANISH EMPIRE	PORTUGUESE EMPIRE	SPANISH EMPIRE	PORTUGUESE EMPIRE	SPANISH EMPIRE
NORTH AMERICA	AZTEC EMPIRE	CARTER 1534	FRENCH EMPIRE	BRITISH EMPIRE	BRITISH EMPIRE	BRITISH EMPIRE
OCEANIA	COLUMBUS 1492	FREEMAN-PEDIA	FREEMAN-PEDIA	FREEMAN-PEDIA	FREEMAN-PEDIA	FREEMAN-PEDIA
SOUTHEAST ASIA	MALACCA SULTANATE	ALBUQUERQUE 1511	MAGELLAN 1522	PORTUGUESE EMPIRE	SPANISH EMPIRE	SPANISH EMPIRE
				DUTCH EMPIRE	DUTCH EMPIRE	DUTCH EMPIRE

WHAT DID



LOOK LIKE IN 1450?



Q1. WHAT IS THIS?



“GREATEST MEMORIAL OF MEDIEVAL CARTOGRAPHY”

- MOST ACCURATE MAP OF THE WORLD IN 1450
- CIRCULAR PLANISPHERE ON PARCHMENT
- HUGE: MEASURES ROUGHLY 2m by 2m
- 100s ILLUSTRATIONS, 3K DESCRIPTIONS
- TOOK YEARS TO COMPLETE
- ONLY TWO COPIES KNOWN TO EXIST

Q2: WHO MADE THIS?

FRA MAURO



- VENETIAN CARTOGRAPHER
- MONK FROM THE CAMALDOLESE MONASTERY OF ST. MICHAEL
- FUN FACT: THE APOLLO 13 MISSION THAT HAD TO ABORT AND RETURN TO EARTH WAS GOING TO EXPLORE HIS CRATER! (A. 14 EXPLORED IT LATER)

Q3: WHAT ARE THE 4 CORNERS?

←PTOLEMEIC
MAP OF THE
SOLAR
SYSTEM
DIAGRAM OF
THE FOUR
ELEMENTS→
(EARTH, WATER, FIRE, AIR)
ILLUSTRATION
OF THE
GARDEN OF
←EDEN
EARTH AS A
GLOBE→



Q4: HOW IS THIS MAP ORIENTED?

SOUTH IS UP!



- 15TH CENTURY MEDIEVAL COMPASSES POINTED SOUTH
- ARAB MAPS WERE ORIENTED IN THIS MANNER
- MOST EUROPEANS HAD EAST AT THE TOP... (GARDEN OF EDEN WAS TO THE EAST)

Q5: WHAT CONTINENTS ARE MISSING?

1. ANTARCTICA
2. NORTH AMERICA
3. SOUTH AMERICA
4. AUSTRALIA



Q6: WHAT IS AT THE CENTER OF THIS MAP?

PERSIA



- MEDIEVAL EUROPEAN MAPS PLACED JERUSALEM AT THE CENTER
- FRA MAURO KNEW THAT THIS WAS NOT THE POPULATION OR GEOGRAPHIC CENTER OF EARTH

Q7: WHAT SOURCE MATERIAL DID FRA MAURO DRAW FROM?

NICCOLO DI CANTI



VENICIAN MERCHANT WHO TRAVELED TO INDIA, SOUTHEAST ASIA AND CHINA

Q7: WHAT SOURCE MATERIAL DID FRA MAURO DRAW FROM?

MUHAMMAD AL-IDRISI



ISLAMIC SCHOLAR WHO GAINED KNOWLEDGE OF THE EARTH FROM CONTACTS WITH ISLAMIC MERCHANTS

Q10: WHAT TYPES OF SHIPS DID HE SHOW ON THE MAP?

SHIPS OF THE WORLD IN 1460 (FRA MAURO MAP)

CHINESE JUNKS



ARABIAN SHIPS



INDIAN SHIPS



EUROPEAN SHIPS

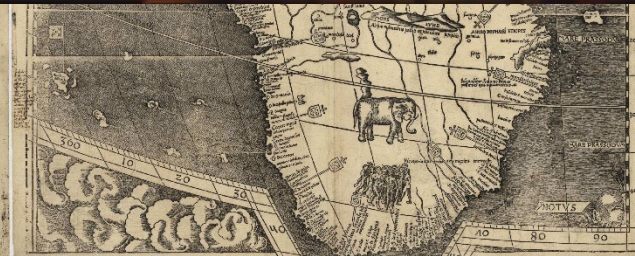


HOW ACCURATE IS THIS MAP?

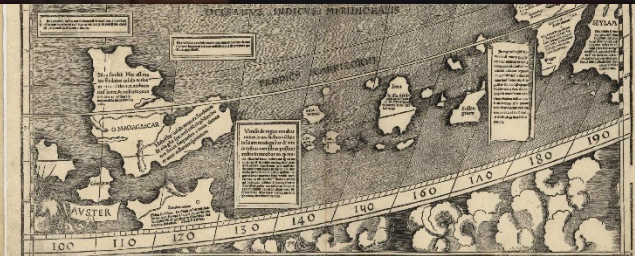




UNIVERSALIS COSMOGRAPHIA



SECUNDVM PTHOLOMEI TRADITIONEM



ET AMERICI VESPVCI ALIORVQVE



TECHNOLOGICAL INNOVATIONS

TRANSOCEANIC INTERACTIONS

c. 1450-1750

c. 1450-1750

Navis Mercatoria Hollandica, vulgo. VLIET.



W. Miller fecit

HERE IS ALL THAT THE COLLEGE BOARD REQUIRES OF YOU FOR:

THIS IS THE THEMATIC FOCUS. IT'S WHAT YOU SHOULD FOCUS ON FOR THIS SECTION

THEMATIC FOCUS

Technology and Innovation **TEC**

Human adaptation and innovation have resulted in increased efficiency, comfort, and security, and technological advances have shaped human development and interactions with both intended and unintended consequences.

HISTORICAL DEVELOPMENTS

KC-4.1.II

Knowledge, scientific learning, and technology from the Classical, Islamic, and Asian worlds spread, facilitating European technological developments and innovation.

KC-4.1.II.A

The developments included the production of new tools, innovations in ship designs, and an improved understanding of regional wind and currents patterns—all of which made transoceanic travel and trade possible.

TECHNOLOGICAL INNOVATIONS c. 1450-1750

INVENTED BY THE GREEKS AND PERFECTED IN DAR AL-ISLAM, THE ASTROLABE ALLOWS YOU TO MEASURE YOUR DISTANCE FROM THE EQUATOR

TECHNOLOGICAL INNOVATIONS c. 1450-1750

TECHNOLOGICAL INNOVATIONS c. 1450-1750

FLUYT:

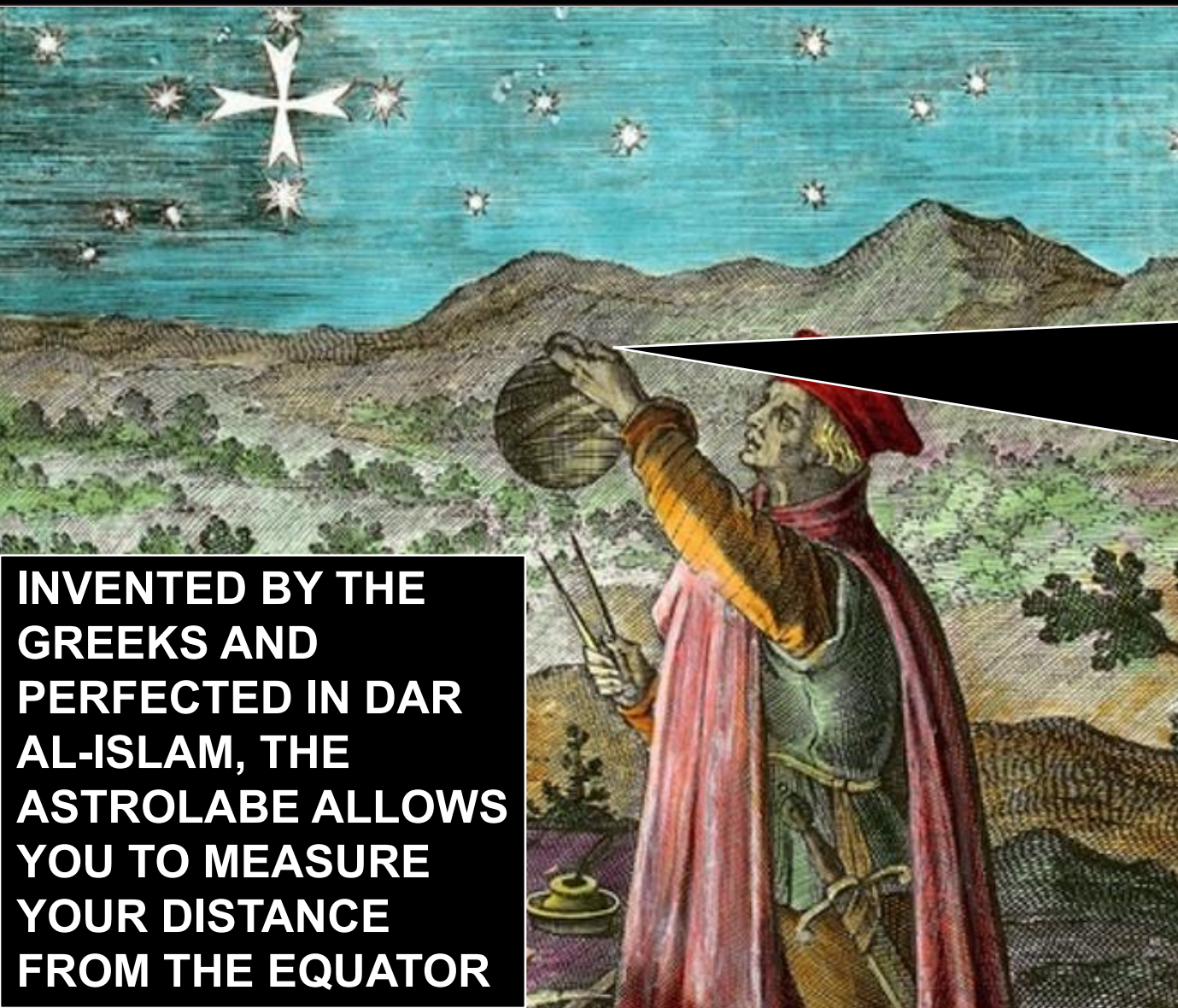
- FROM THE DUTCH FLUTE
- DUTCH SHIPPING VESSEL
- FEATURED IN VOC DUTCH SHIPPING BOAT
- KEY FEATURES: OTHER SHIPS MILITARY DESIGNS
- FLUYT=JUST FOR SHIPPING
- HALF THE PRICE; TWICE THE CARGO
- 1670: FLUYTS CARRIED 1/3 OF EUROPE'S GOODS

EUROPEAN CAME TO UN THE PREVAIL EX- PORTUG SAILORS WC WEST BEFO SOUTH ARO OF AFRICA 1 INDIAN OCE

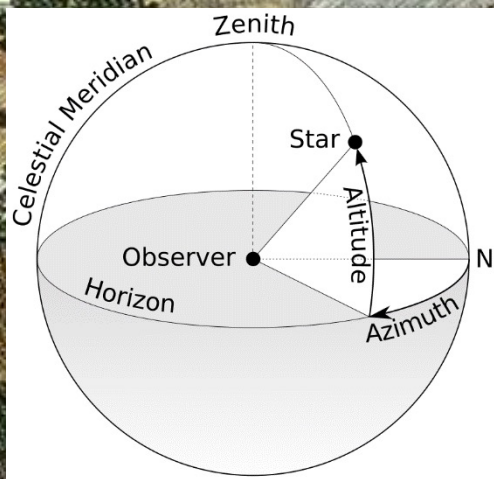
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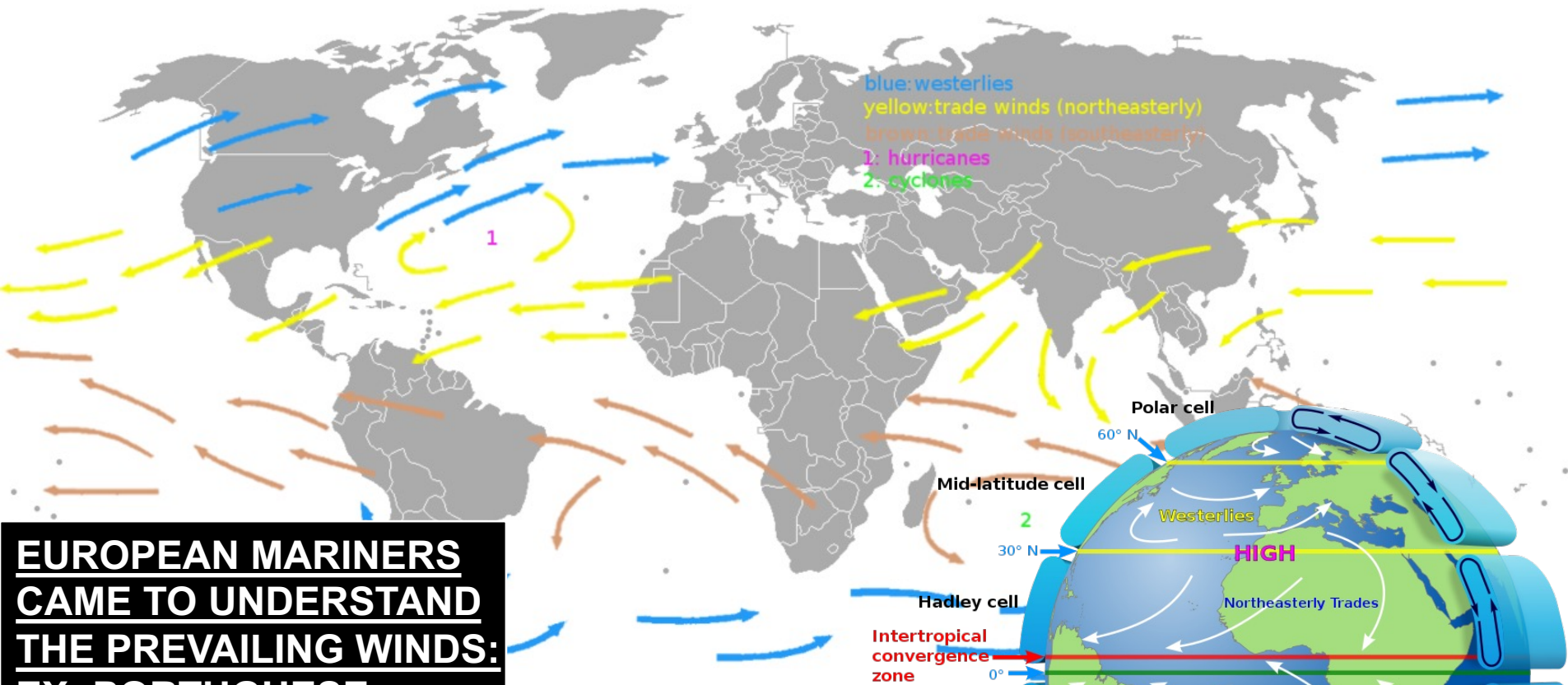
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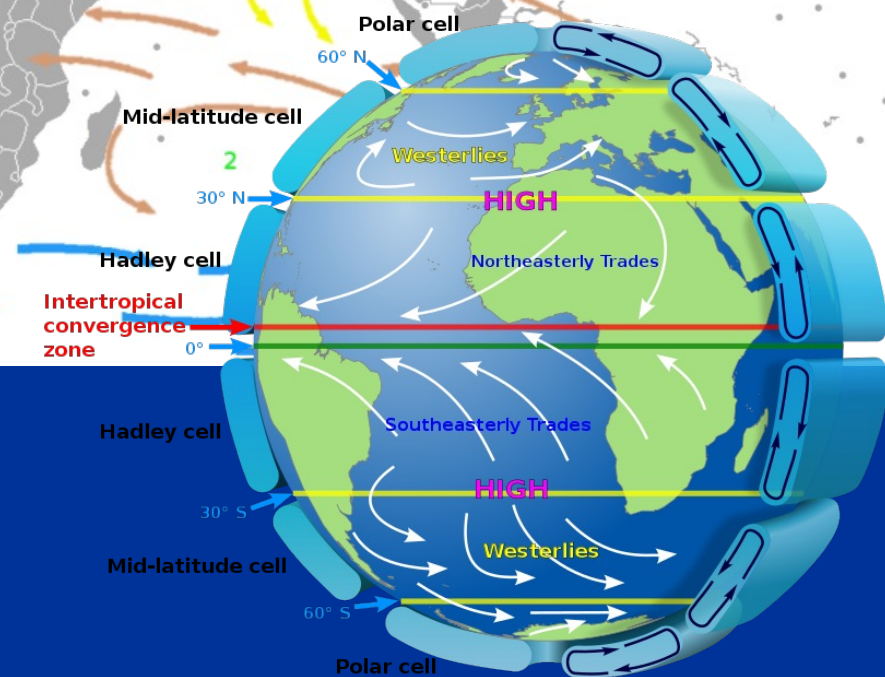
TRANSOCEANIC INTERACTIONS
c. 1450-1750

c. 1450-1750



blue: westerlies
yellow: trade winds (northeasterly)
brown: trade winds (southeasterly)
1: hurricanes
2: cyclones

**EUROPEAN MARINERS
CAME TO UNDERSTAND
THE PREVAILING WINDS:
EX- PORTUGUESE
SAILORS WOULD SAIL
WEST BEFORE GOING
SOUTH AROUND THE TIP
OF AFRICA TO THE
INDIAN OCEAN**

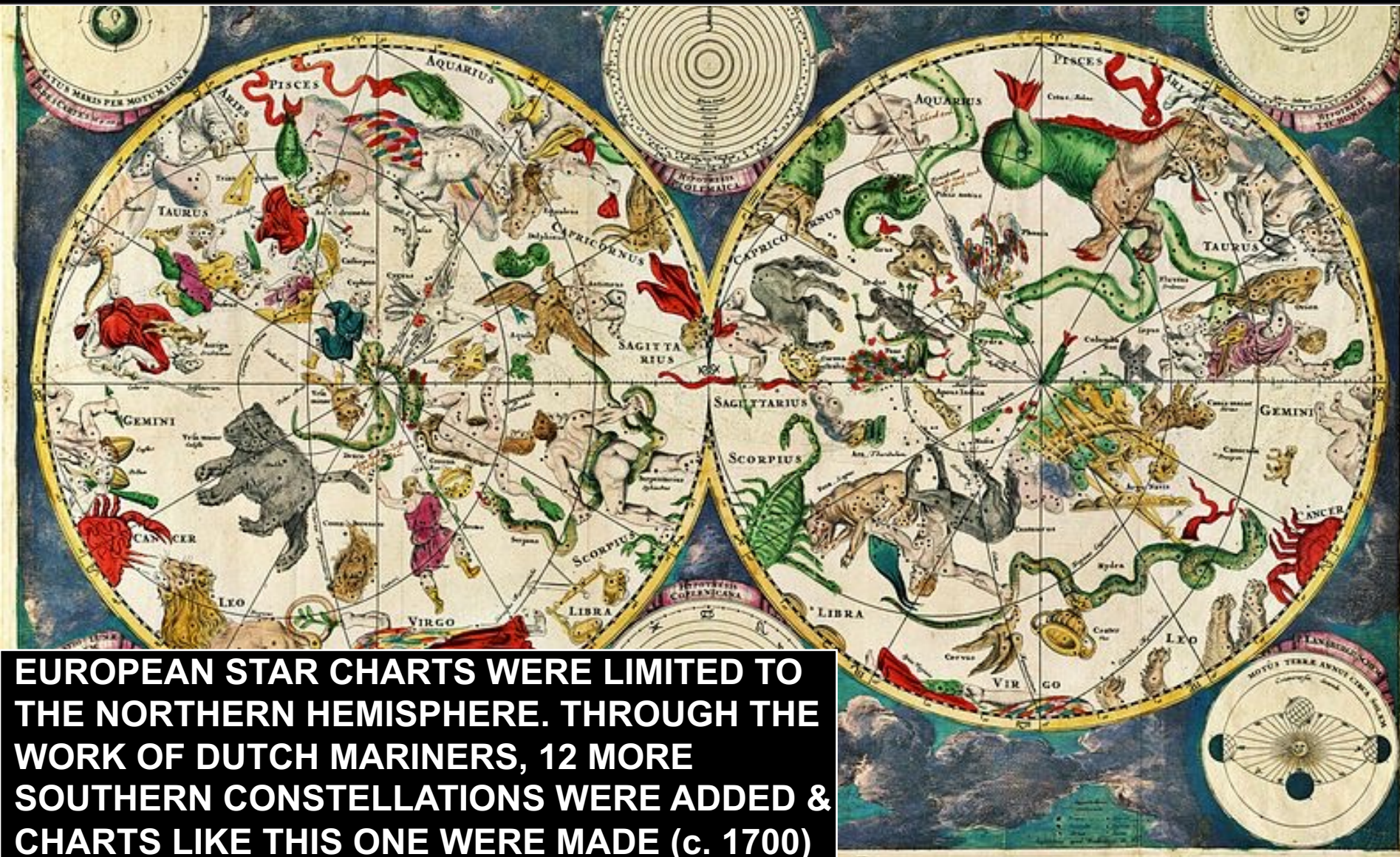


Polar cell
60° N
Mid-latitude cell
2
30° N
Hadley cell
Intertropical convergence zone
0°
Hadley cell
30° S
Mid-latitude cell
60° S
Polar cell
Westerlies
Northeasterly Trades
HIGH
Southeasterly Trades
HIGH
Westerlies

TECHNOLOGICAL INNOVATIONS

TRANSOCEANIC INTERACTIONS
c. 1450-1750

c. 1450-1750



EUROPEAN STAR CHARTS WERE LIMITED TO THE NORTHERN HEMISPHERE. THROUGH THE WORK OF DUTCH MARINERS, 12 MORE SOUTHERN CONSTELLATIONS WERE ADDED & CHARTS LIKE THIS ONE WERE MADE (c. 1700)

TECHNOLOGICAL INNOVATIONS

TRANSOCEANIC INTERACTIONS
c. 1450-1750

c. 1450-1750

CARAVEL:

- FROM THE ARABIC *QARIB*, ANCIENT BOAT
- SMALL, HIGHLY MANEUVERABLE
- DEVELOPED IN THE 1400s (15TH CENTURY)
- **EXPLORER BOAT**
- KEY FEATURES:
- LATEEN SAIL
 - COULD SAIL WINDWARD
- REPLACED ANCIENT BARGES
- NINA & PINTA



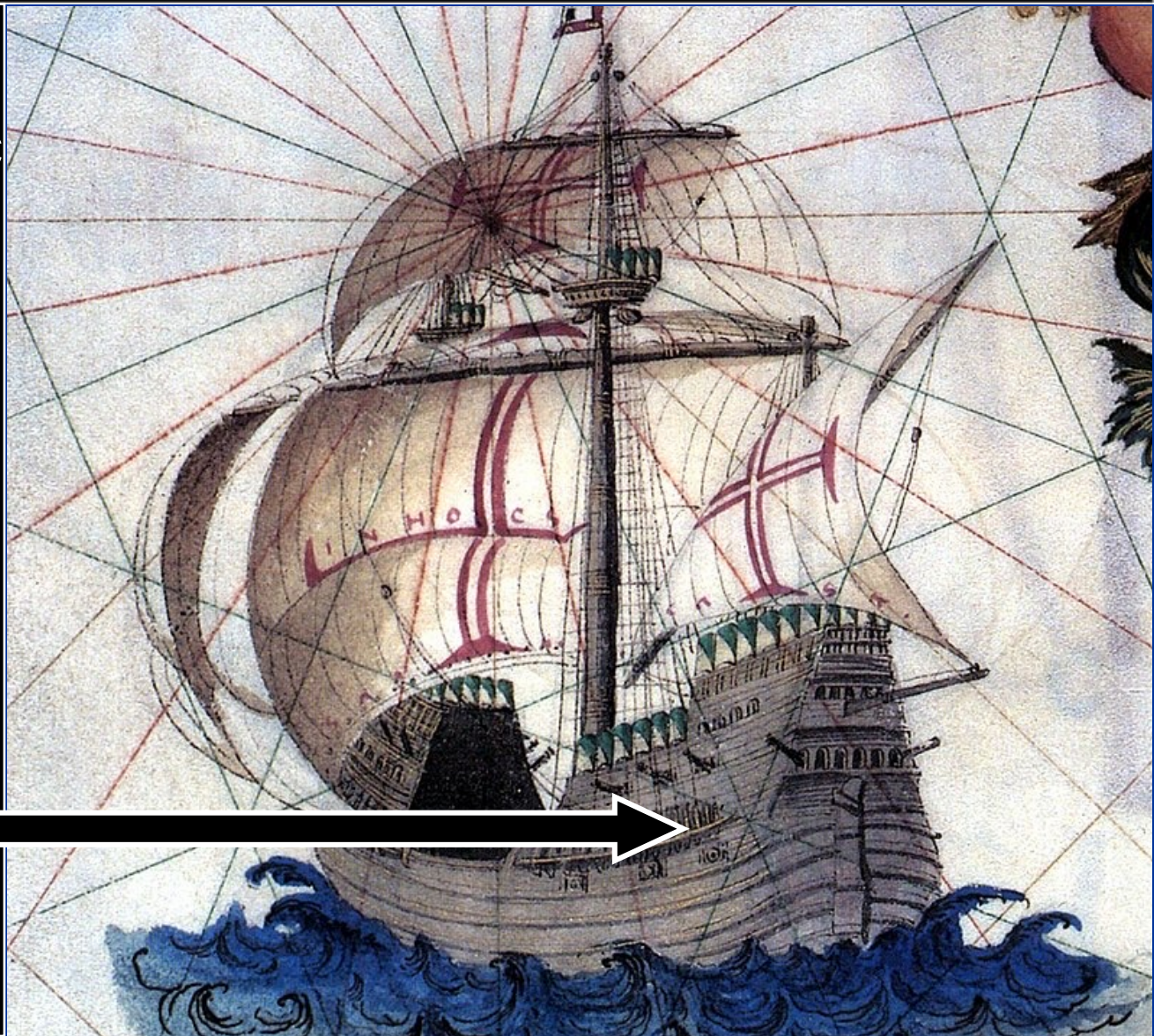
TECHNOLOGICAL INNOVATIONS

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c. 1450-1750

c. 1450-1750

CARRACK:

- FROM THE ARABIC *QARAQIR*, 'MERCHANT SHIP'
- LARGER, OCEAN-GOING
- CAME TO REPLACE THE SMALL CARAVELS
- **SHIPPING BOAT**
- KEY FEATURES:
- 3-4 MASTS
- COULD CARRY 1000 TONS
- EXCLUSIVELY A CARGO SHIP
- SANTA MARIA!



TECHNOLOGICAL INNOVATIONS

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GALLEON:

- FROM THE SPANISH GALEON, 'ARMED MERCHANT SHIP'
- ARMED & FORTIFIED THE CARRACK
- **FIGHTING BOAT**
- KEY FEATURES:
- UP TO 400 GUNS
- USED TO SHIP PRECIOUS CARGO
- EX: MANILLA
- GALLEONS CARRIED SILVER & GOLD (2,000 TONS)
- SPANISH 'SILVER FLEET' ONLY CAPTURED ONCE (1628)



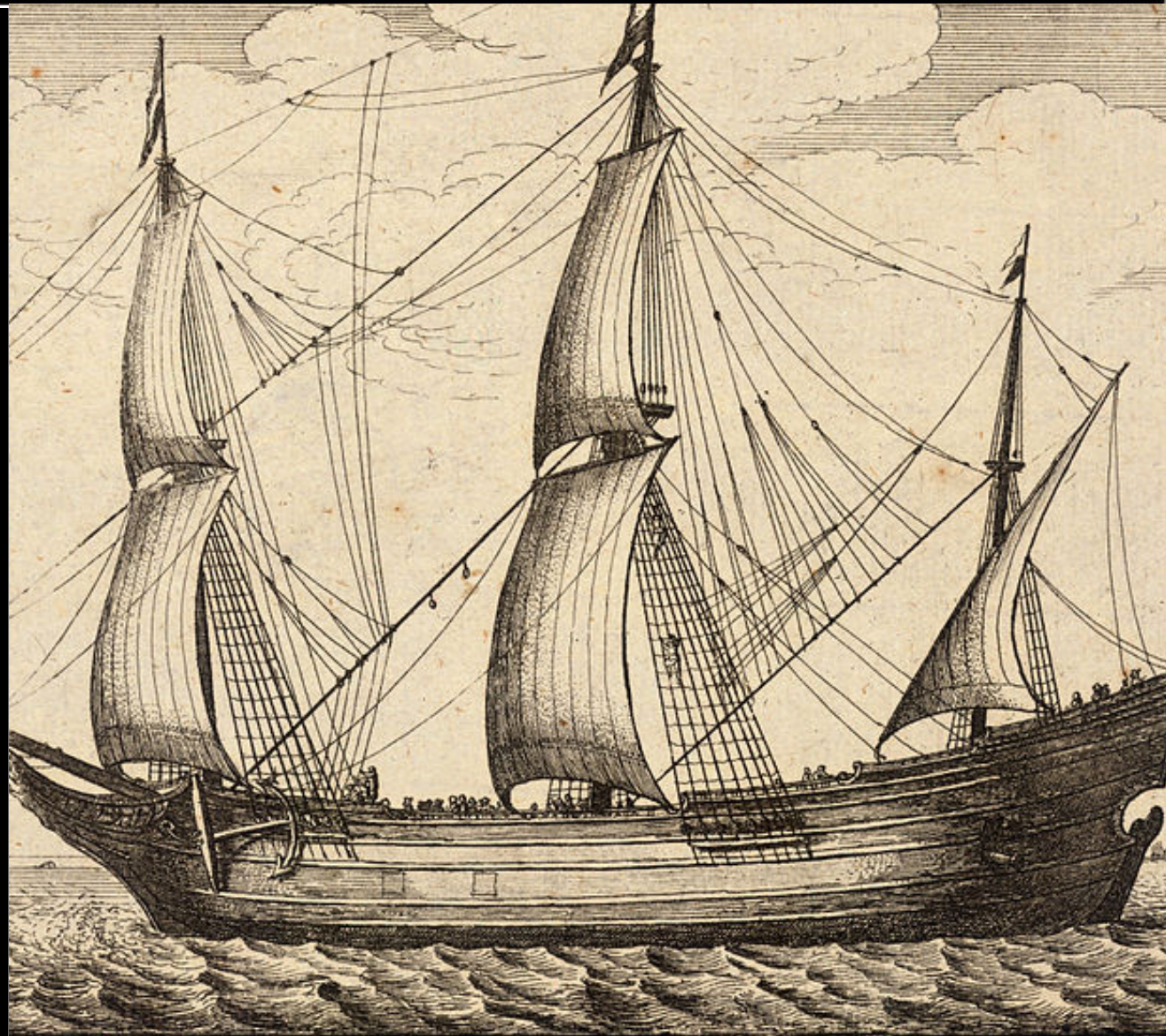
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- **DUTCH SHIPPING BOAT**
- KEY FEATURES:
- OTHER SHIPS MILITARY DESIGNS
- FLUYT=JUST FOR SHIPPING
- HALF THE PRICE; TWICE THE CARGO
- 1670: FLUYTS CARRIED ½ OF EUROPE'S GOODS



I'VE PROBABLY ONLY MENTIONED THIS 1,000,000 TIMES, BUT...

**I HAVE A
YOUTUBE
CHANNEL!**

**ILLUSTRATIVE
EXAMPLES**



**THIS
VIDEO
MIGHT
HELP
HERE**

**DUTCH
FLUYTS!**

**ILLUSTRATIVE
EXAMPLES**

