


HAND, MENALL & CO'S
REVISED
ATLAS OF THE WORLD
ON MERCATOR'S PROJECTION.
Showing the direction of the
Magnetic Currents.

CARTOGRAPHY & *WELTANSCHAUUNG*

**WORLDVIEW AND THE
EFFORT TO MAP THE “WHOLE WORLD”**



**WHERE WOULD WE BE
WITHOUT MAPS?**

LOST

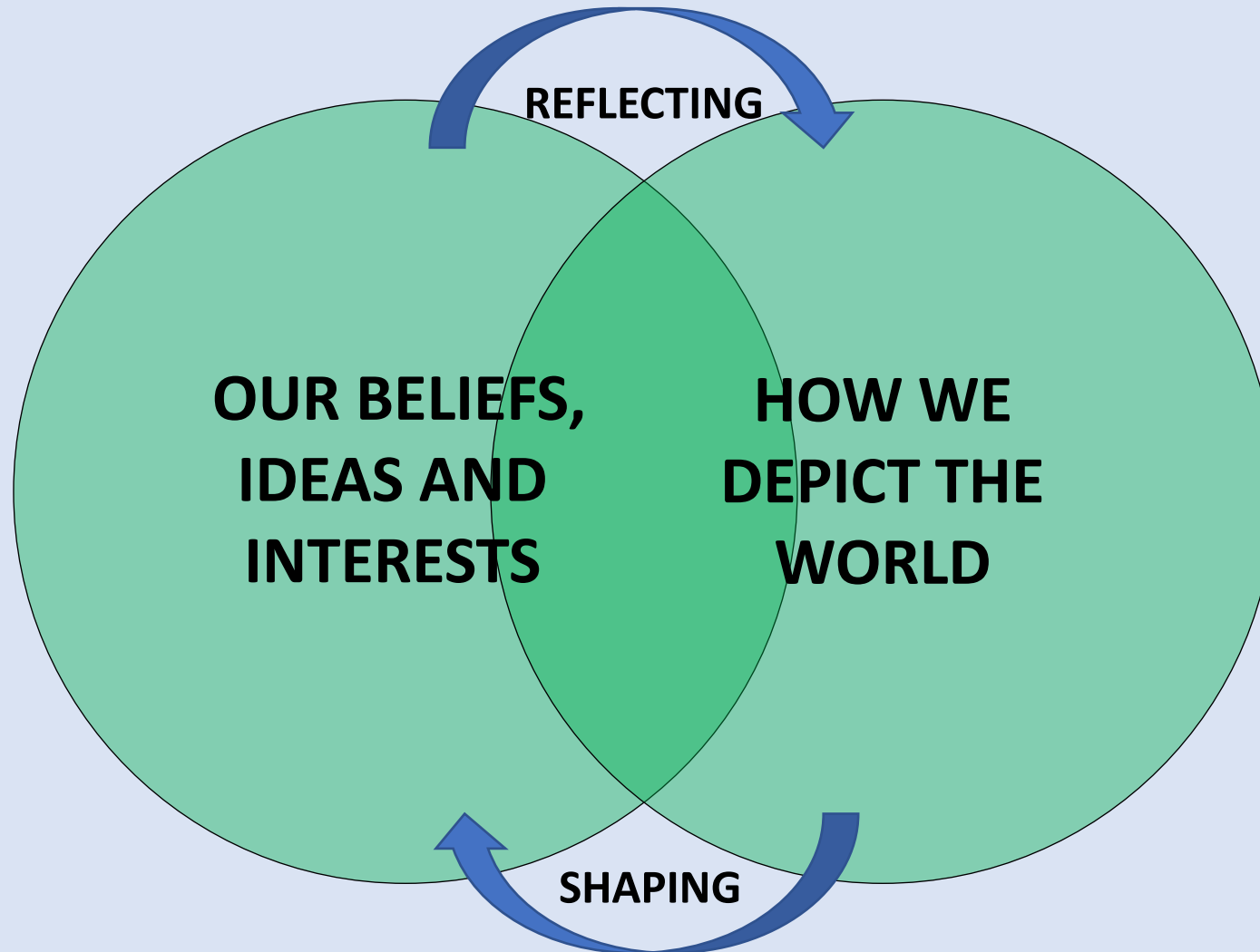
OUR FASCINATION WITH MAPS

JOSEPH CONRAD (IN *THE HEART OF DARKNESS*):

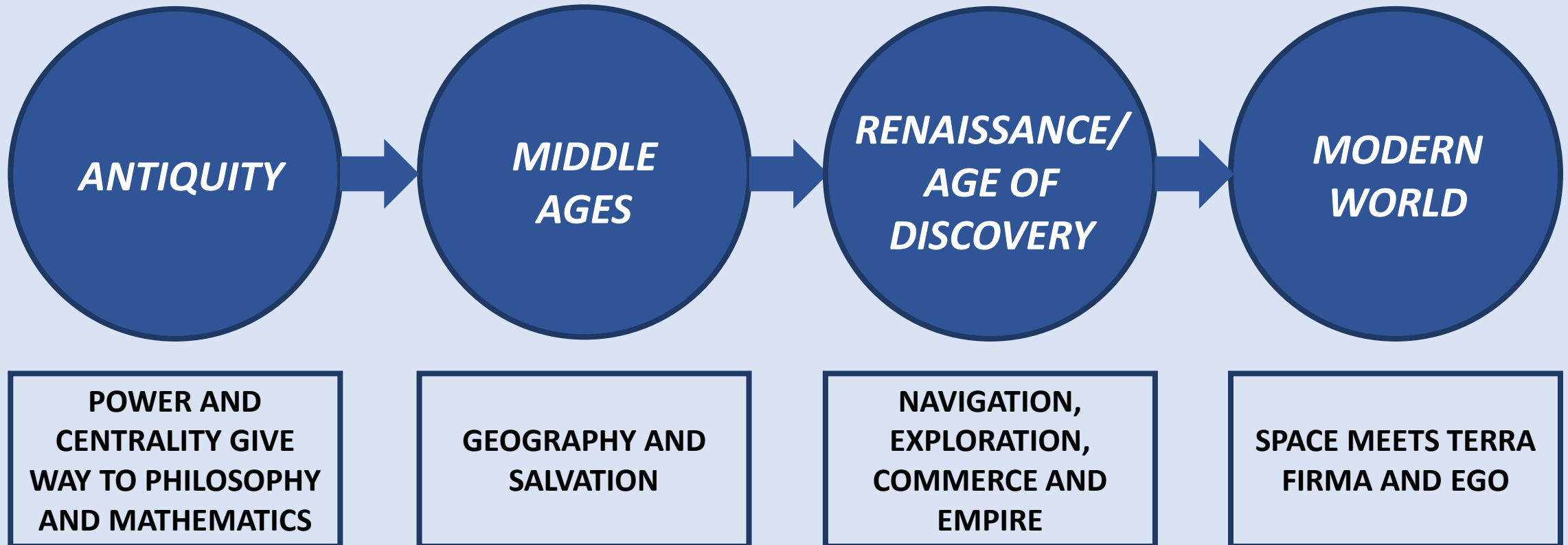
“... WHEN I WAS A LITTLE CHAP I HAD A PASSION FOR MAPS. I WOULD LOOK FOR HOURS AT SOUTH AMERICA, OR AFRICA, OR AUSTRALIA, AND LOSE MYSELF IN ALL THE GLORIES OF EXPLORATION. AT THAT TIME THERE WERE MANY BLANK SPACES ON THE EARTH, AND WHEN I SAW ONE THAT LOOKED PARTICULARLY INVITING ON A MAP (BUT THEY ALL LOOK LIKE THAT) I WOULD PUT MY FINGER ON IT AND SAY, ‘WHEN I GROW UP I WILL GO THERE’.”

THE MACRO VIEW

OUR SENSE OF THE “WHOLE” WORLD AND OUR PLACE IN IT



CHANGING WORLDVIEWS AND WORLD MAPS

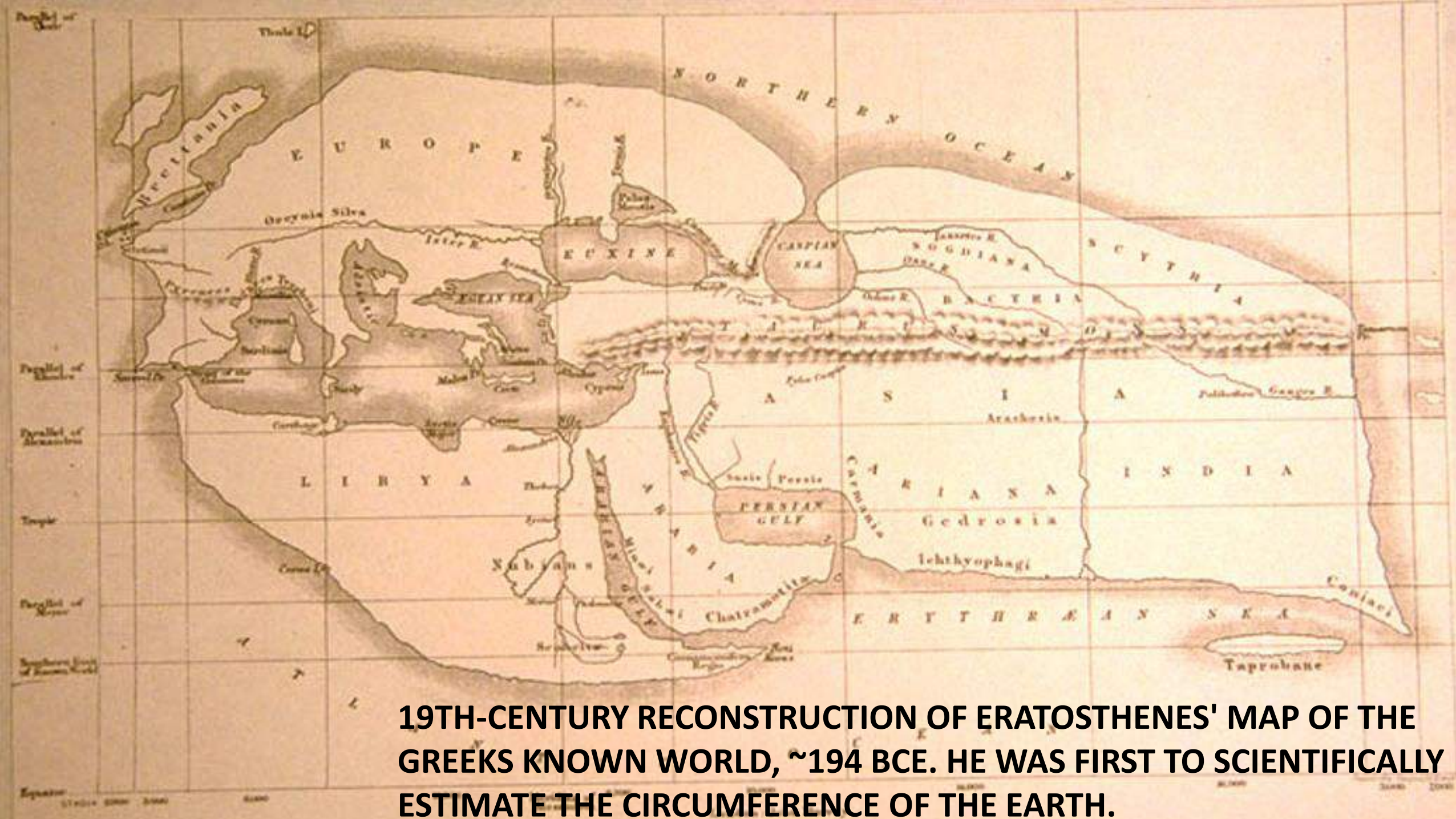




**BABYLONIAN CLAY
TABLET OF THE
“KNOWN WORLD”
7TH CENTURY BCE**

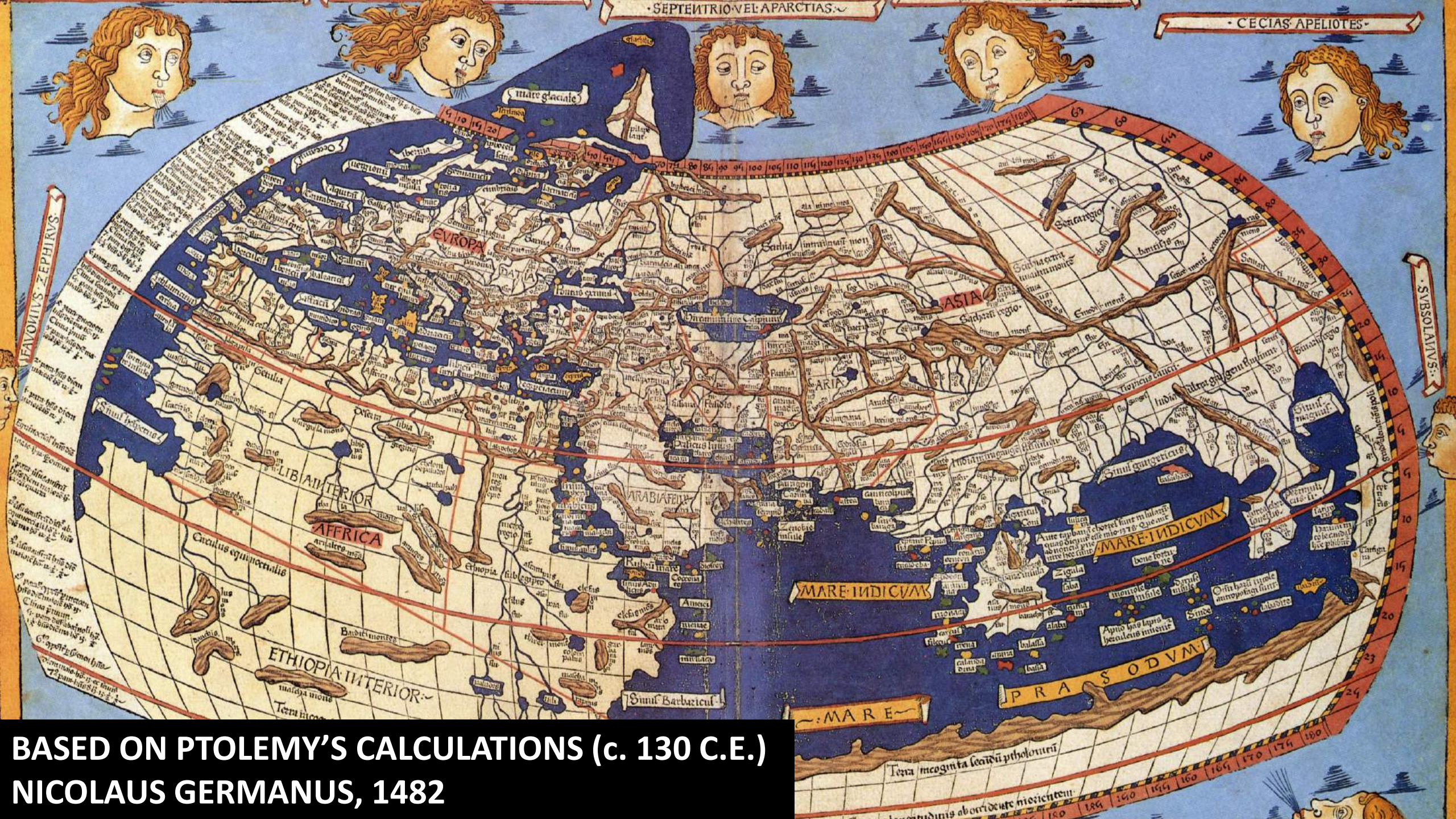


HECATÆUS'S MAP (c. 500 BCE) DESCRIBES THE EARTH AS A CIRCULAR PLATE WITH AN ENCIRCLING OCEAN AND GREECE IN THE CENTER OF THE WORLD. THIS WAS A VERY POPULAR CONTEMPORARY GREEK WORLDVIEW, DERIVED ORIGINALLY FROM THE HOMERIC POEMS.





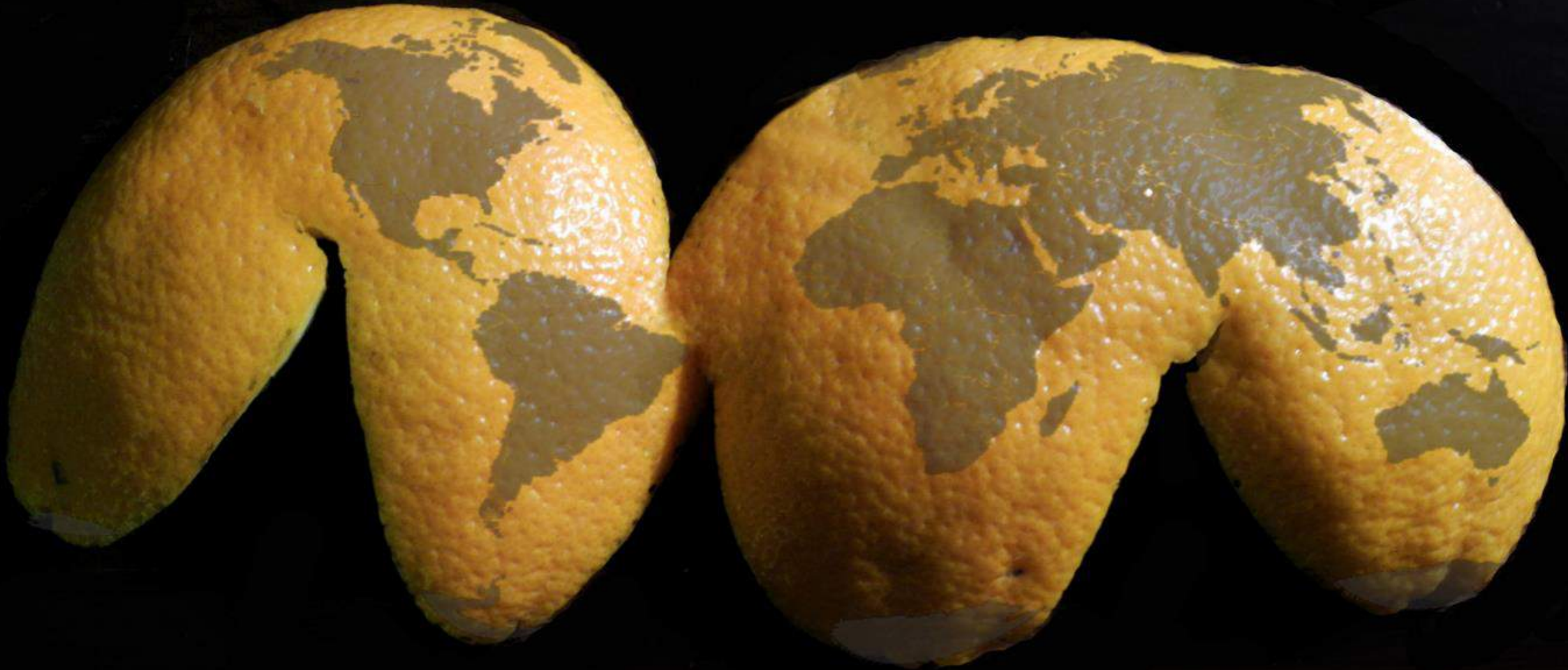
POMPONIIUS MELA
(c. 43 CE)



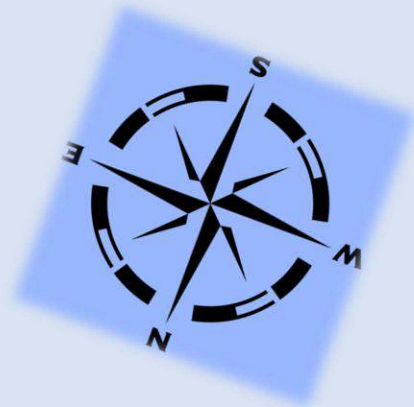
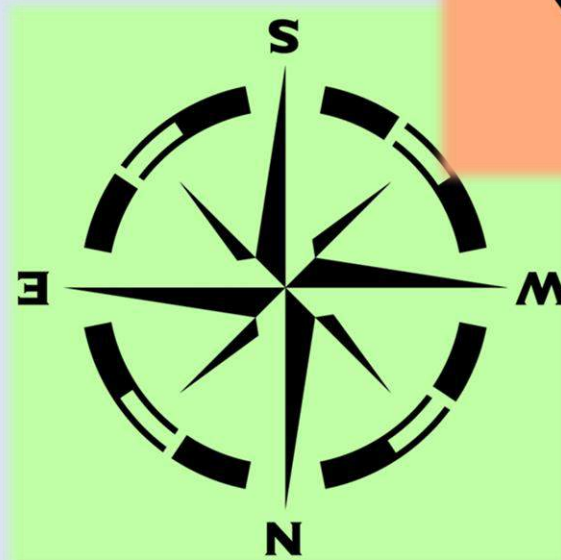
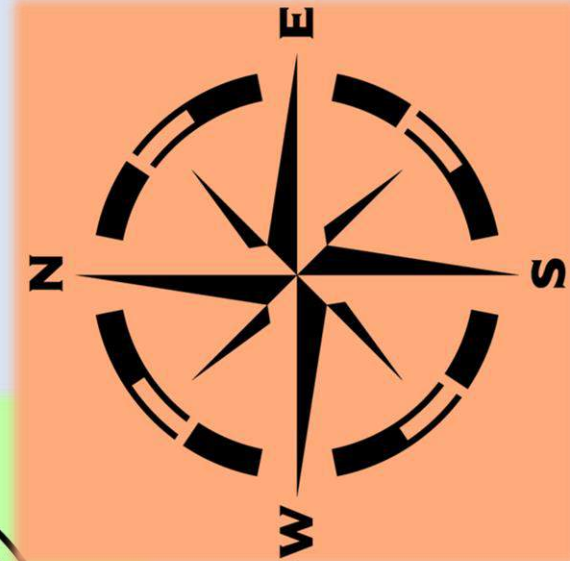
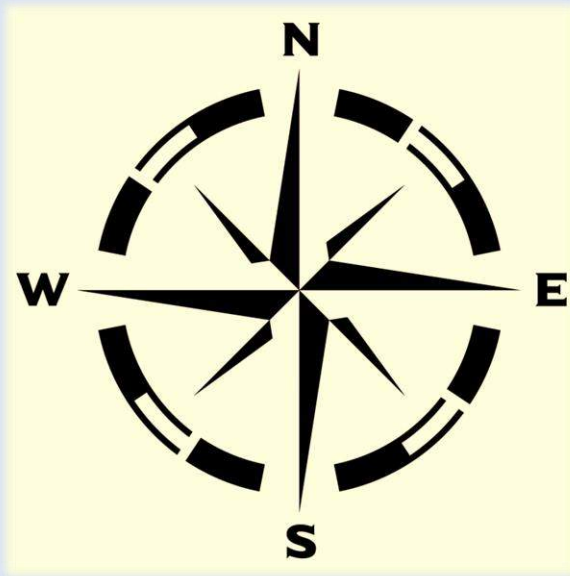
**BASED ON PTOLEMY'S CALCULATIONS (c. 130 C.E.)
NICOLAUS GERMANUS, 1482**

CARTOGRAPHER'S "ORANGE PEEL PROBLEM"

NO FLAT MAP IS ACCURATE



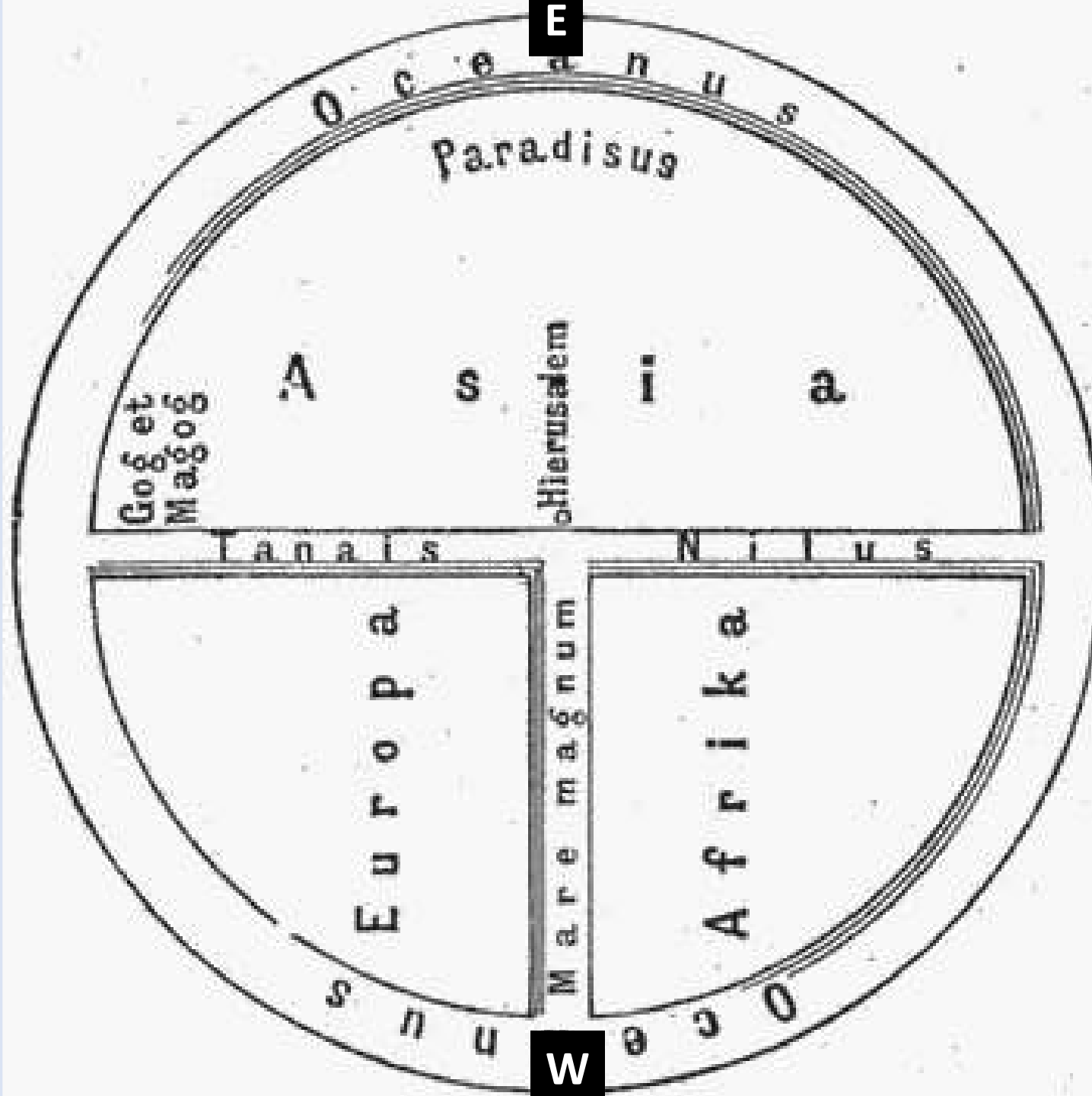
A MATTER OF ORIENTATION

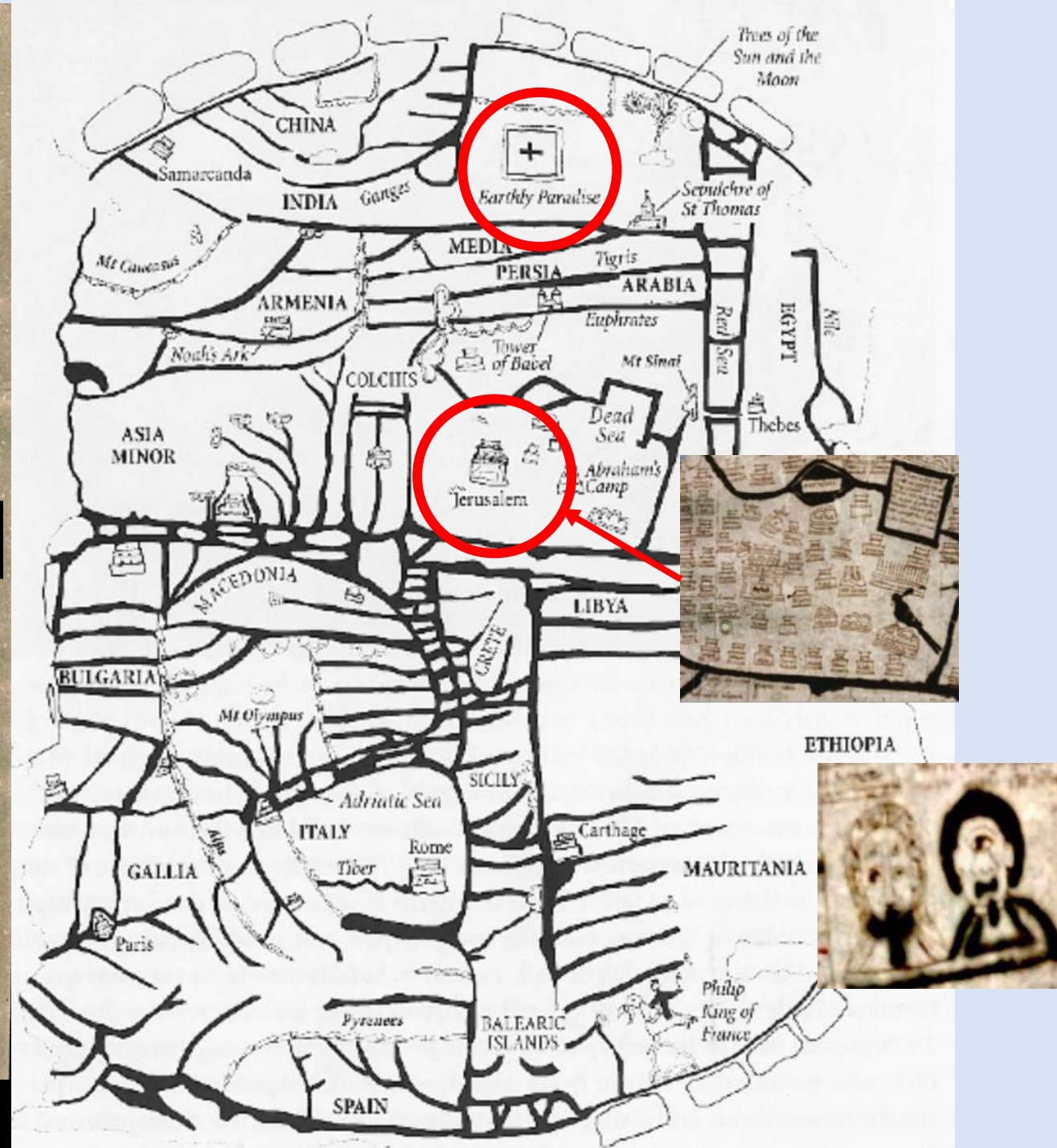
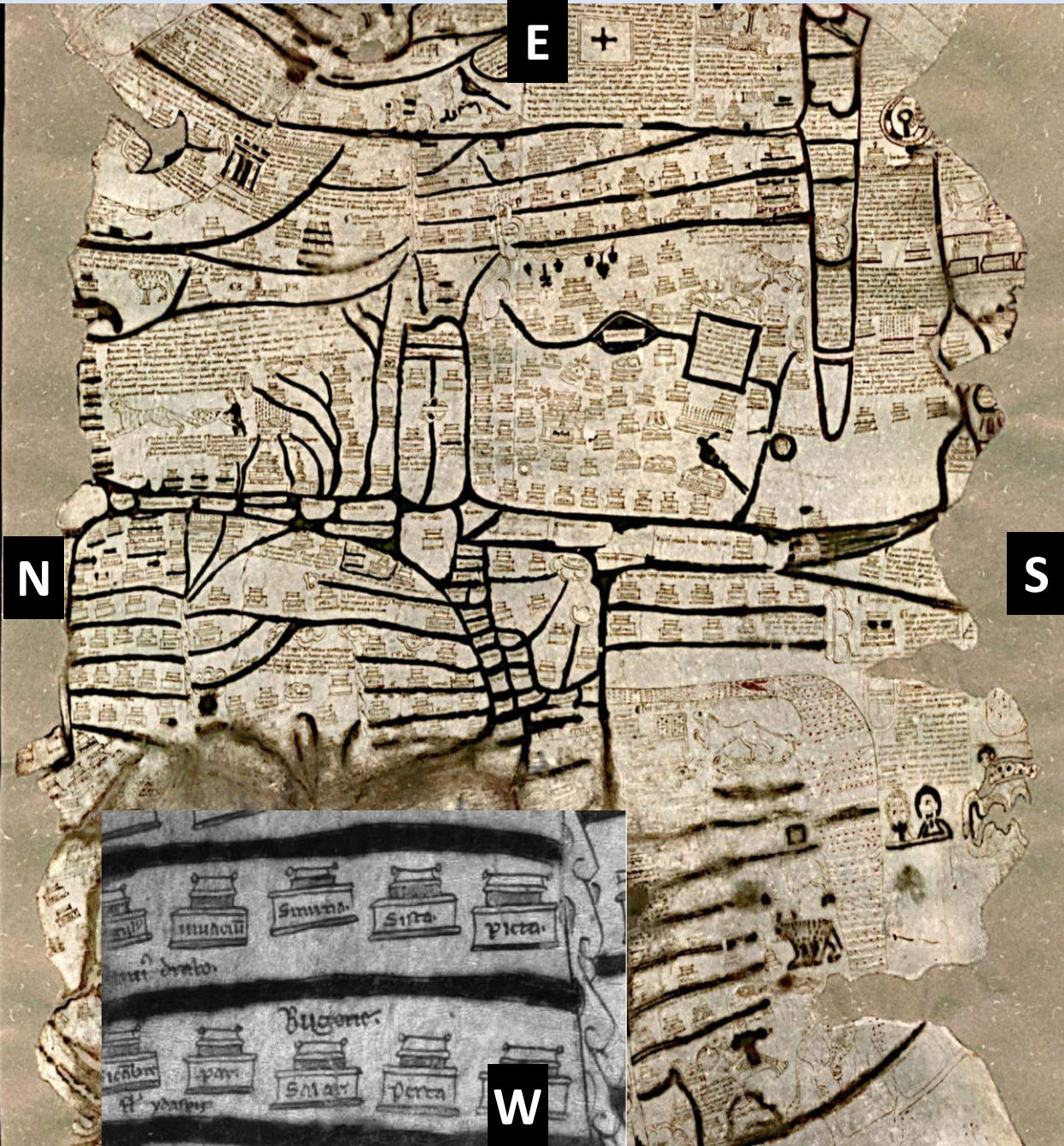


MAPPAMUNDI

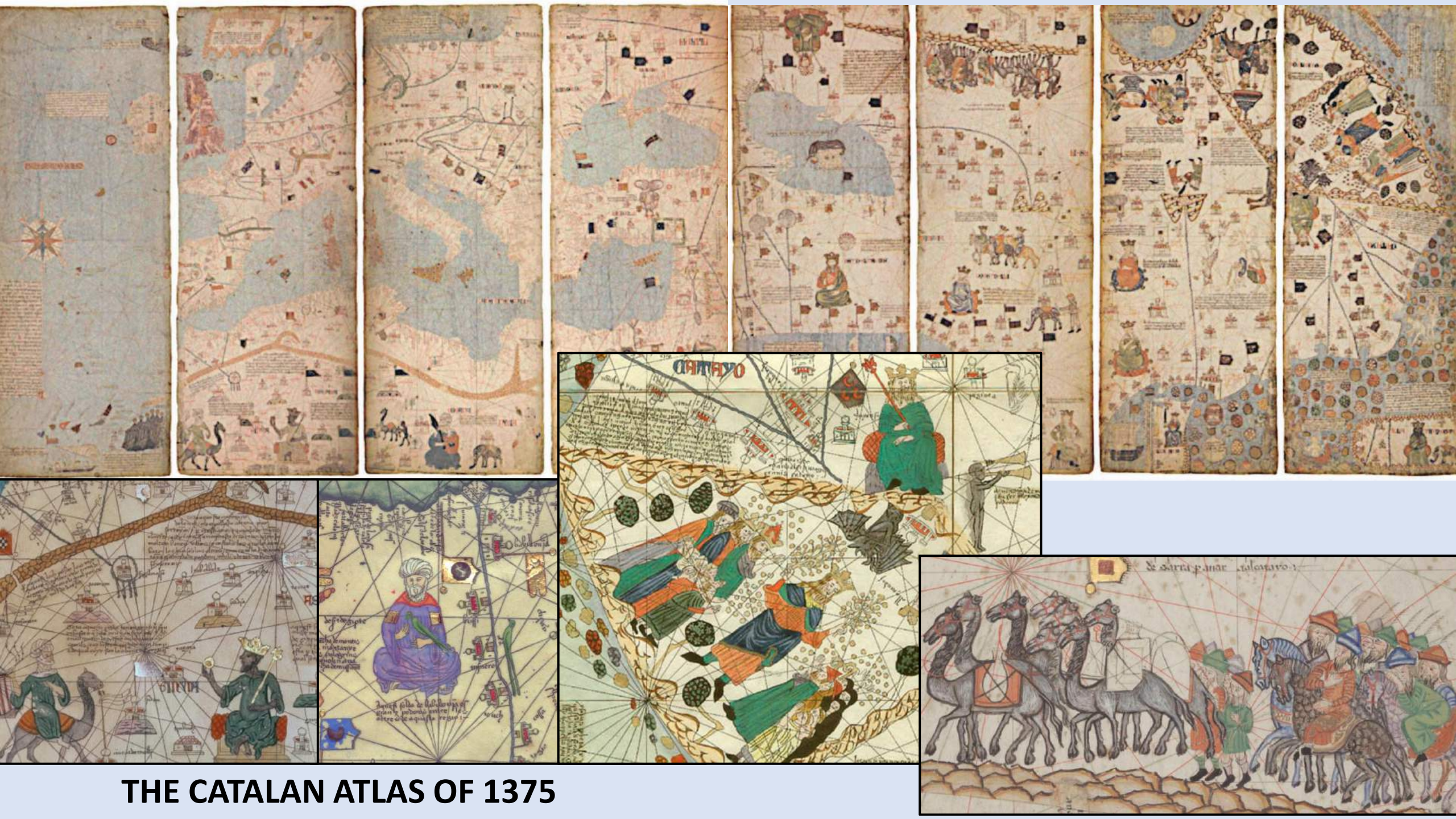
- **MEDIEVAL ACCOUNTS OF THE EARTH (WRITTEN OR DRAWN)**
- **A WORLD DEFINED BY CHRISTIAN THEOLOGY AND FAITH, NOT SCIENCE AND MATHEMATICS**
- **A TELEOLOGICAL VIEW OF MAN AND THE WORLD (CREATION, REDEMPTION, SALVATION)**
- **MIXING BIBLICAL, CLASSICAL, MYTHICAL AND PHANTASMAGORICAL IMAGES, PLACES, BEASTS AND BEINGS**
- **VARYING, OFTEN TANGENTIAL, RELATIONSHIP TO GEOGRAPHICAL REALITY**

**ISIDORE OF
SEVILLE (c. 636)
T & O MAP
PRECURSOR OF
MAPPAMUNDI**





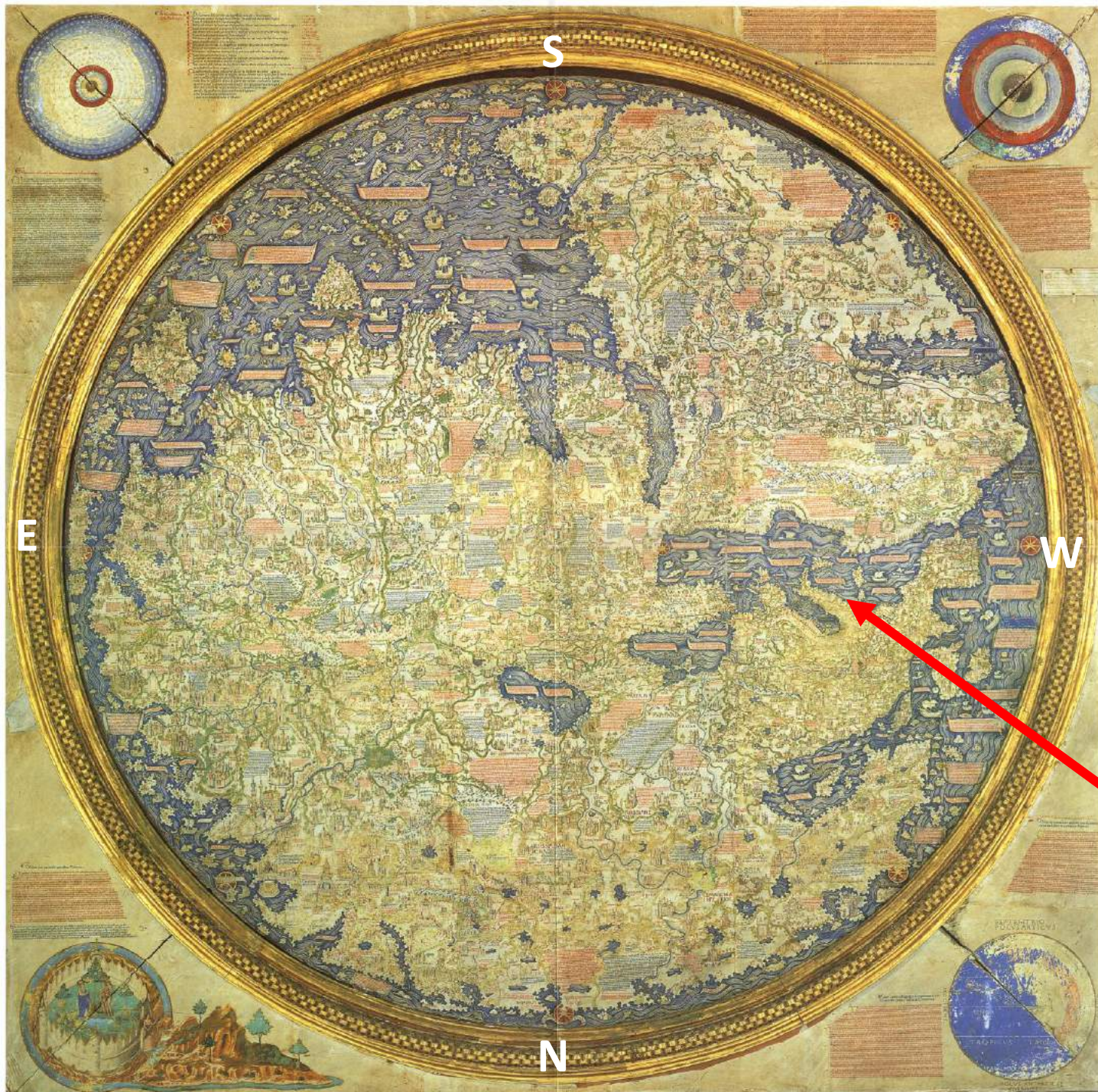
THE VERCELLI MAPPAMUNDI, c. 1200



THE CATALAN ATLAS OF 1375



KANGNIDO WORLD MAP
1402



**GREAT EARLY MODERN
EUROPEAN MAP MADE
AROUND 1450 BY THE
VENETIAN MONK FRA
MAURO. IT IS A CIRCULAR
WORLD MAP ABOUT
TWO METERS IN
DIAMETER**

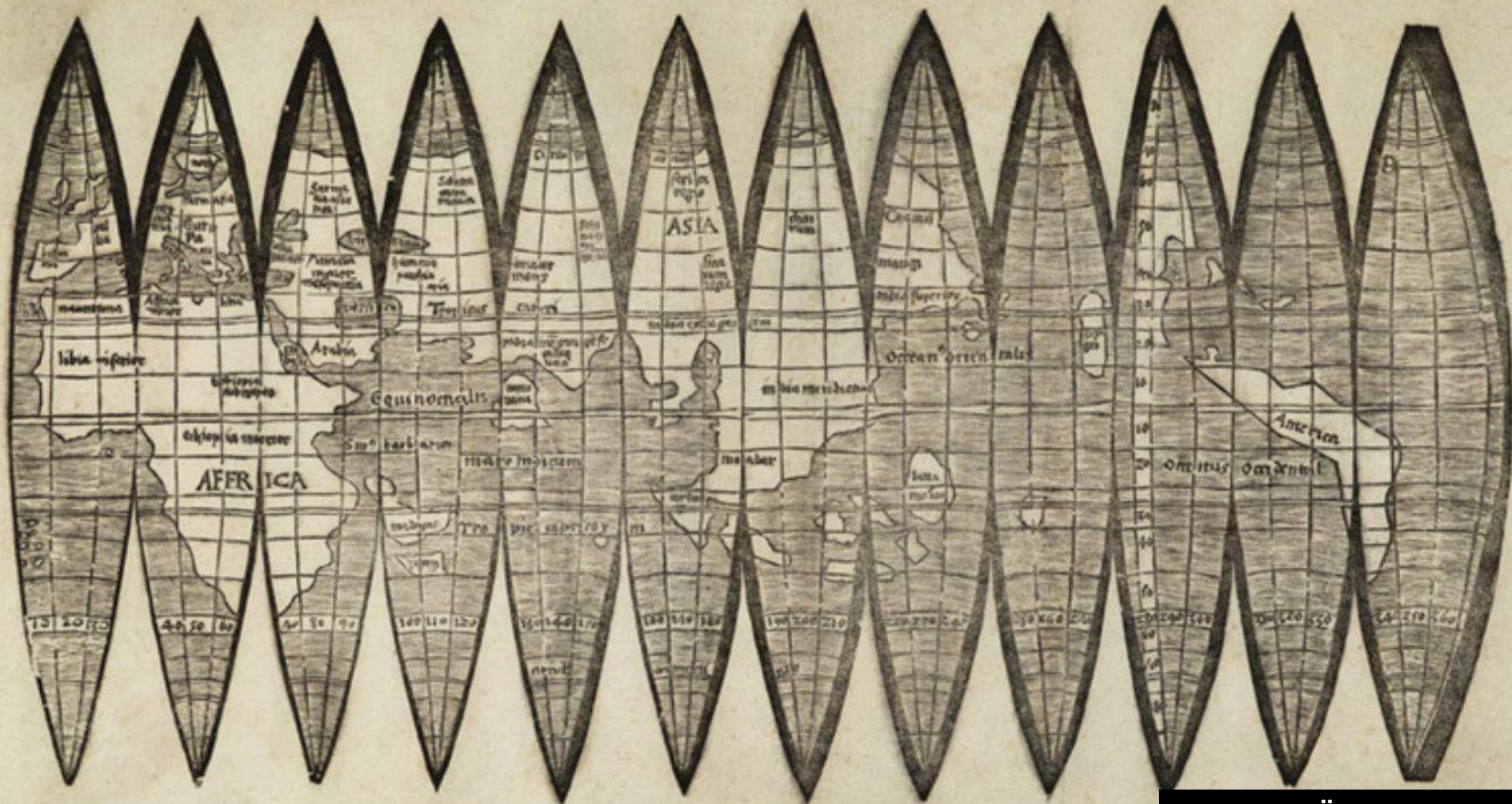


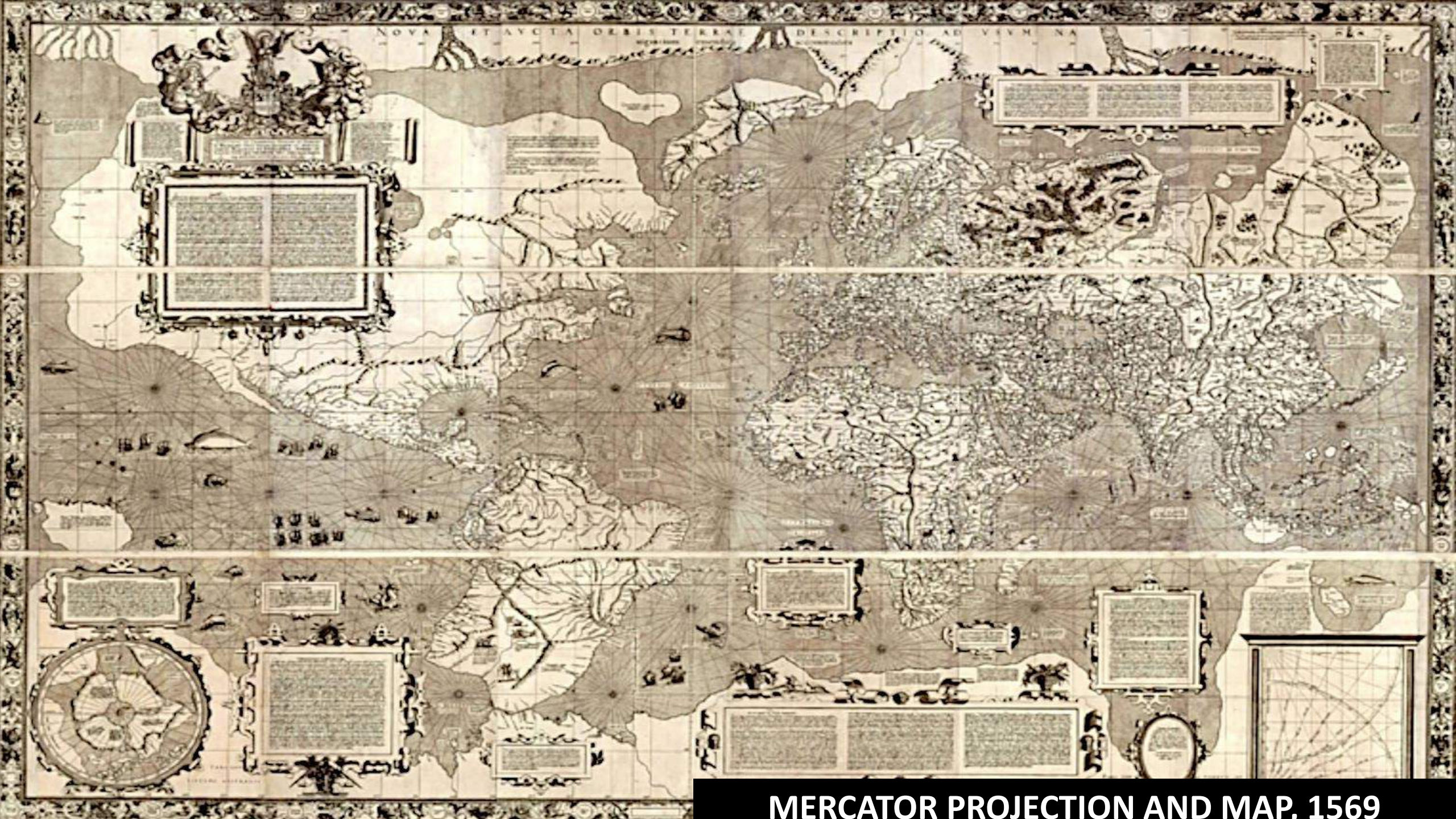


NASA COMPARED FRA MAURO'S MAP TO A SATELLITE IMAGE. FOUND THE RESULT "STUNNING"—GIVEN THE METHODS AVAILABLE AT THE TIME.

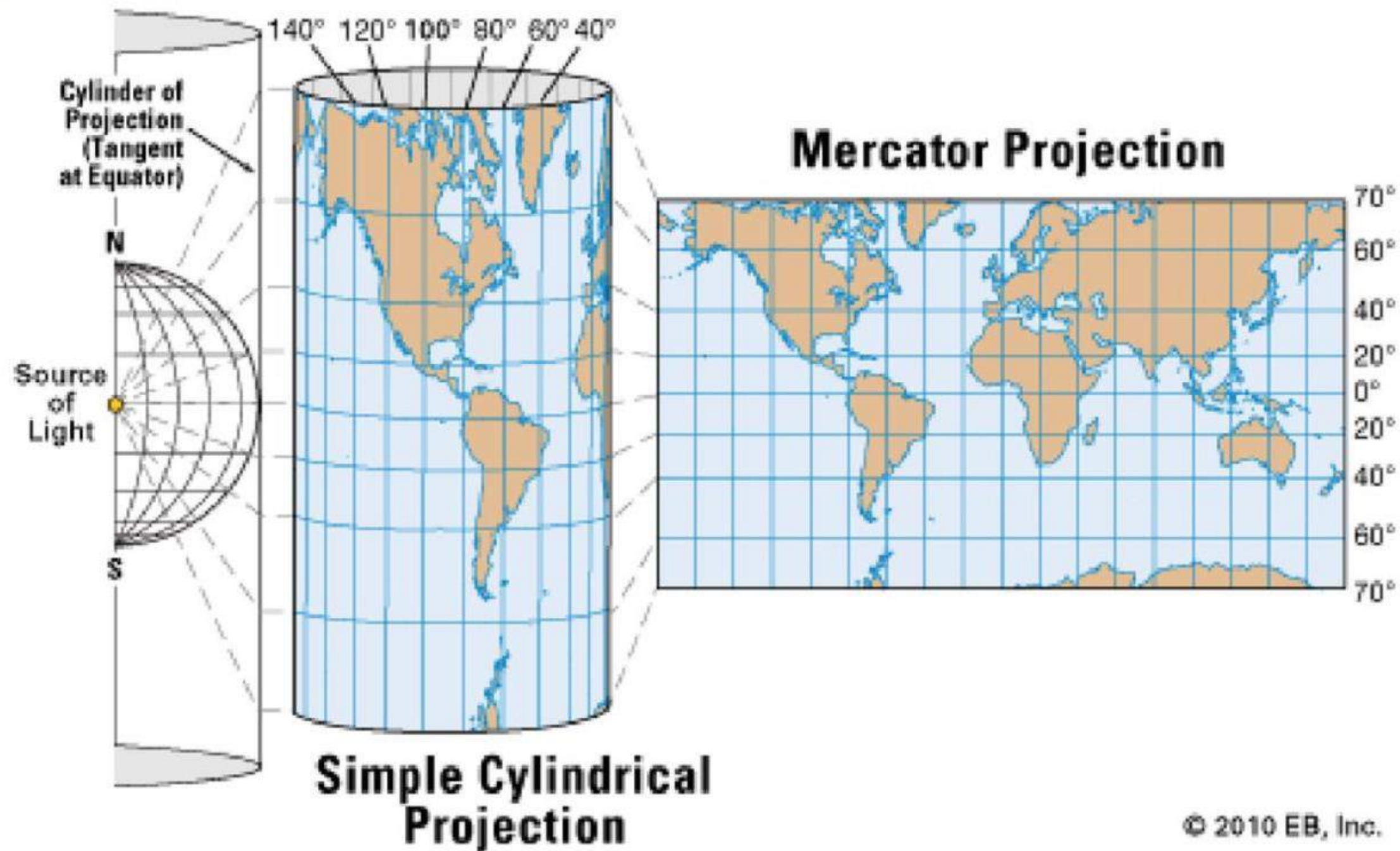


WALDSEEMÜLLER WORLD MAP, 1507





MERCATOR PROJECTION AND MAP, 1569









MERCATUR'S MAP AND PUBLIC "IMMAPPACY"

The True Size of Africa

A small contribution in the fight against rampant *Immappancy*, by Kai Krause

Graphic layout for visualization only (some countries are cut and rotated)
But the conclusions are very accurate: refer to table below for exact data

COUNTRY	AREA x 1000 km ²
China	9.597
USA	9.629
India	3.287
Mexico	1.964
Peru	1.285
France	633
Spain	506
Papua New Guinea	462
Sweden	441
Japan	378
Germany	357
Norway	324
Italy	301
New Zealand	270
United Kingdom	243
Nepal	147
Bangladesh	144
Greece	132
TOTAL	30.102
AFRICA	30.221

In addition to the well known social issues of *illiteracy* and *innumeracy*, there also should be such a concept as "*immappancy*", meaning *insufficient geographical knowledge*.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose "*1-2 billion*" and "*largest in the world*", respectively.

Even with Asian and European college students, geographical estimates were often off by factors of 2-3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as *Mercator*).

A particularly extreme example is the worldwide misjudgement of the true size of *Africa*. This single image tries to embody the massive scale, which is larger than the *USA*, *China*, *India*, *Japan* and *all of Europe*..... combined!



Top 100 Countries

Area in square kilometers, Percentage of World Total
Sources: Britannica, Wikipedia, Almanac 2010

		AREA km ²	%
1	Russia	17.098.242	11,60
2	Canada	9.984.670	6,70
3	China	9.596.961	6,40
4	United States	9.629.091	6,40
5	Brazil	8.514.877	5,70
6	Australia	7.692.024	5,20
7	India	3.287.263	2,30
8	Argentina	2.780.400	2,00
9	Kazakhstan	2.724.900	1,80
10	Sudan	2.505.813	1,70
11	Algeria	2.381.741	1,60
12	Congo	2.344.858	1,60
13	Greenland	2.166.086	1,50
14	Saudi Arabia	2.149.690	1,40
15	Mexico	1.964.375	1,30
16	Indonesia	1.860.380	1,30
17	Libya	1.759.540	1,20
18	Iran	1.628.750	1,10
19	Montgolia	1.564.100	1,10
20	Peru	1.285.216	0,86
21	Chad	1.284.000	0,86
22	Niger	1.267.000	0,85
23	Angola	1.246.700	0,85
24	Mali	1.240.192	0,83
25	South Africa	1.221.037	0,82
26	Colombia	1.141.748	0,76
27	Ethiopia	1.104.300	0,74
28	Bolivia	1.098.581	0,74
29	Mauritania	1.025.520	0,69
30	Egypt	1.002.000	0,67
31	Tanzania	945.087	0,63
32	Nigeria	923.768	0,62
33	Venezuela	912.550	0,61
34	Namibia	824.116	0,55
35	Mozambique	801.590	0,54
36	Pakistan	796.095	0,53
37	Turkey	783.562	0,53
38	Chile	756.102	0,51
39	Zambia	752.612	0,51
40	Myanmar	676.578	0,45
41	Afghanistan	652.090	0,44
42	Somalia	637.657	0,43
43	France	632.634	0,43
44	C. African Rep	622.984	0,42
45	Ukraine	603.500	0,41
46	Madagascar	587.041	0,39
47	Botswana	582.000	0,39
48	Kenya	580.367	0,39
49	Yemen	527.968	0,36
50	Thailand	513.120	0,34
51	Spain	505.992	0,34
52	Turkmenistan	488.100	0,33
53	Cameroon	475.442	0,32
54	Papua New Guinea	462.840	0,31
55	Uzbekistan	447.400	0,30
56	Morocco	446.550	0,30
57	Sweden	441.370	0,30
58	Iraq	438.317	0,29
59	Paraguay	406.752	0,27
60	Zimbabwe	390.757	0,26
61	Japan	377.930	0,25
62	Germany	357.114	0,24
63	Rep o. Congo	342.000	0,23
64	Finland	338.140	0,23
65	Vietnam	331.212	0,22
66	Malaysia	330.603	0,22
67	Norway	323.802	0,22
68	Côte d'Ivoire	322.463	0,22
69	Poland	312.685	0,21
70	Oman	309.500	0,21
71	Italy	301.336	0,20
72	Philippines	300.000	0,20
73	Burkina Faso	274.222	0,18
74	New Zealand	270.467	0,18
75	Gabon	267.668	0,18
76	Western Sahara	266.000	0,18
77	Ecuador	256.369	0,20
78	Guinea	245.657	0,17
79	United Kingdom	242.500	0,17
80	Uganda	241.038	0,16
81	Ghana	238.539	0,16
82	Romania	238.391	0,16
83	Laos	236.800	0,16
84	Guyana	214.969	0,14
85	Belarus	207.600	0,14
86	Kyrgyzstan	199.851	0,13
87	Senegal	196.722	0,13
88	Syria	185.180	0,12
89	Cambodia	181.035	0,12
90	Uruguay	178.215	0,12
91	Suriname	163.820	0,11
92	Tunisia	163.610	0,11
93	Nepal	147.181	0,10
94	Bangladesh	143.998	0,10
95	Tajikistan	143.700	0,10
96	Greece	131.957	0,09
97	Nicaragua	130.373	0,09



United States



Europe



India



Japan



China

World Population in 2018

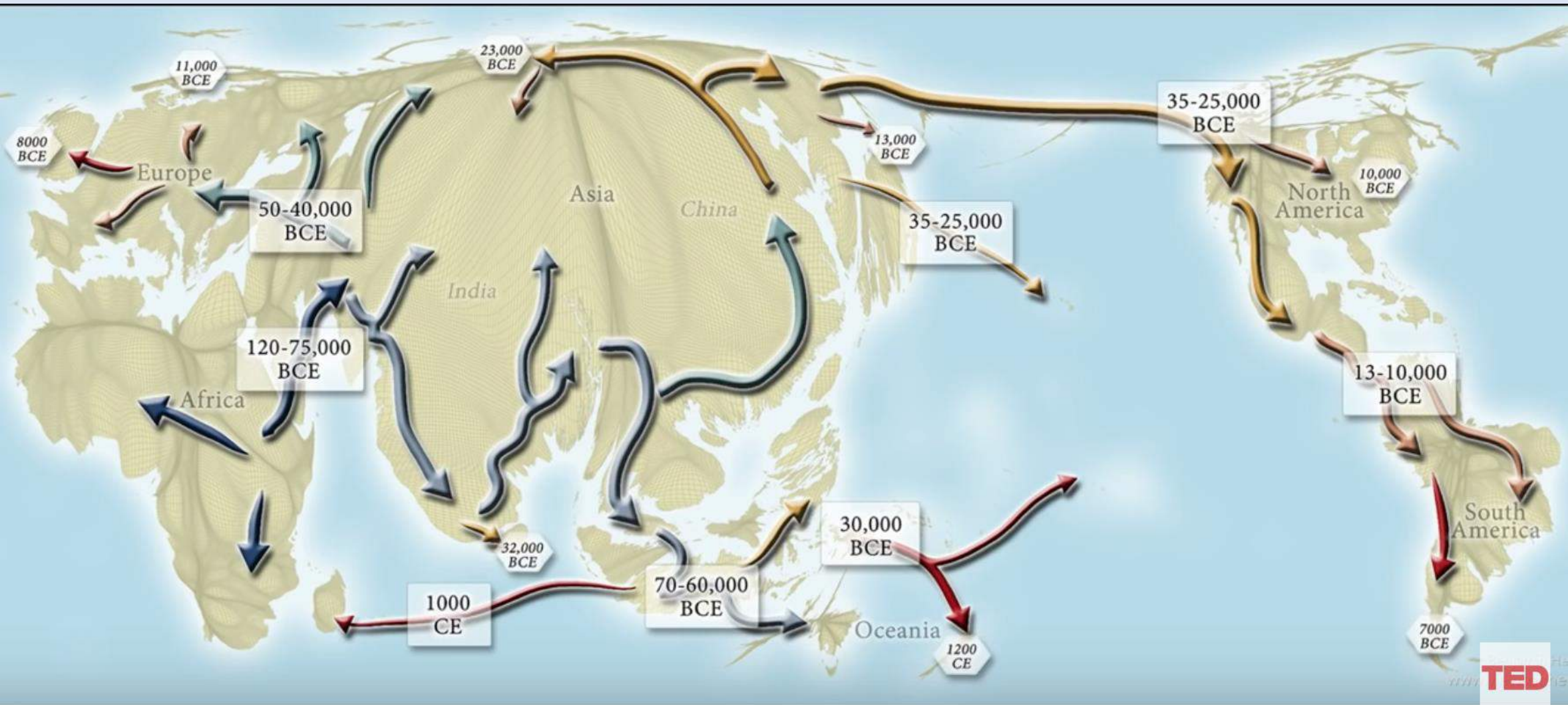
The country's size in this map represents the size of the population. Each square [■] represents 500,000 people. All 15,266 squares show where the world's 7.633 billion people live.

by Max Roser for OurWorldinData.org – the free online publication that presents the data and research on how the world is changing.

Population data from the UN Population Division.
Version 1 (September 2018).

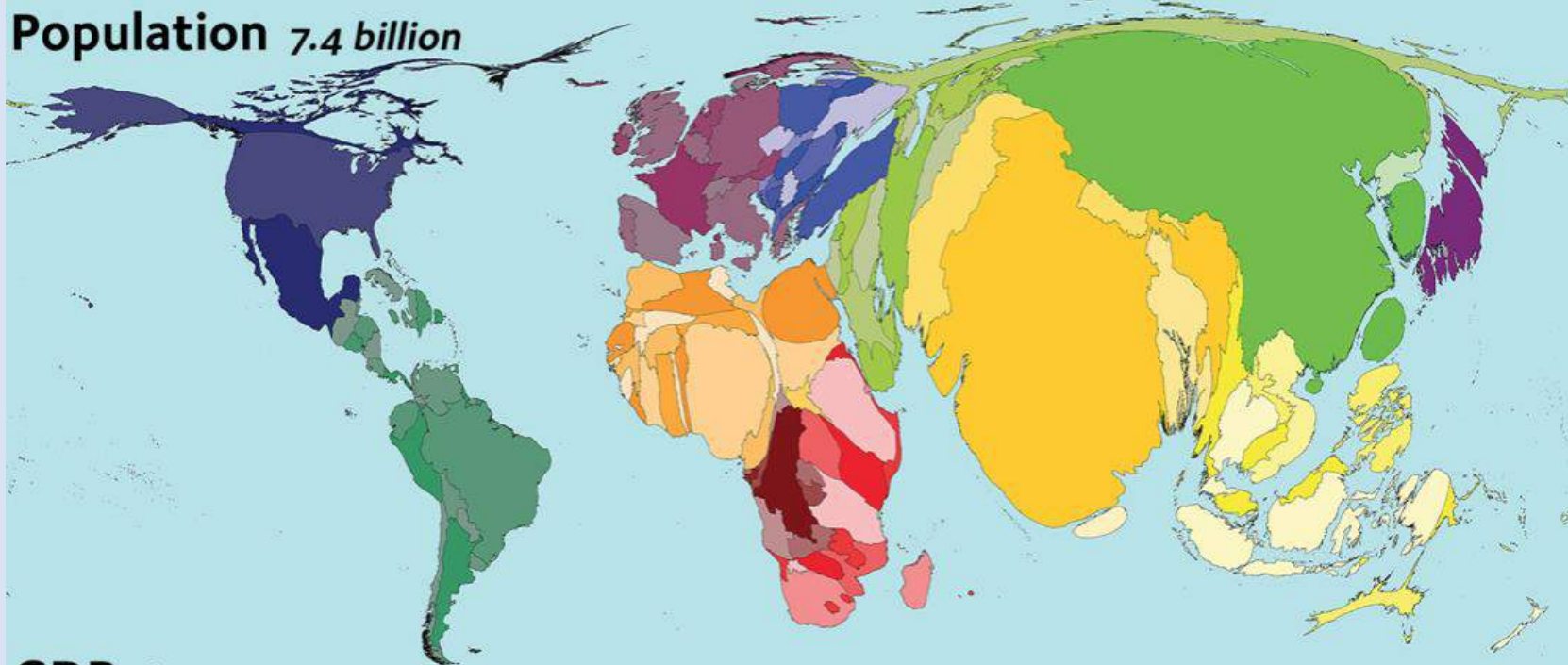
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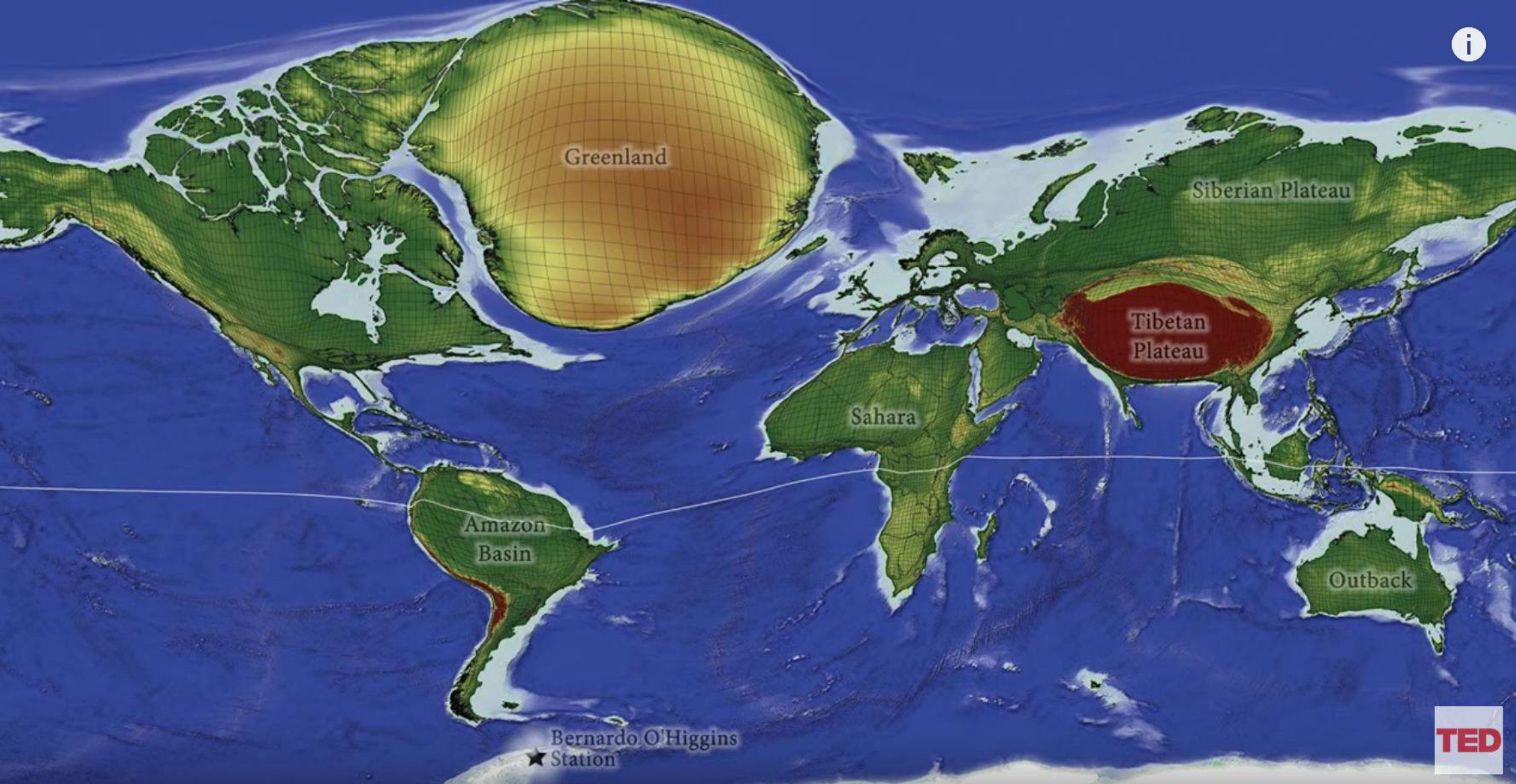
WORLD POPULATION AND ARROWS SHOWING HOW/WHEN HUMANS SPREAD.

Population 7.4 billion



GDP \$80 trillion





GETTING AWAY FROM PEOPLE. LARGER THE AREA, GREATER AVERAGE DISTANCE BETWEEN PEOPLE—GROWING WITH URBANIZATION



Google Earth



US Dept of State Geographer
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