

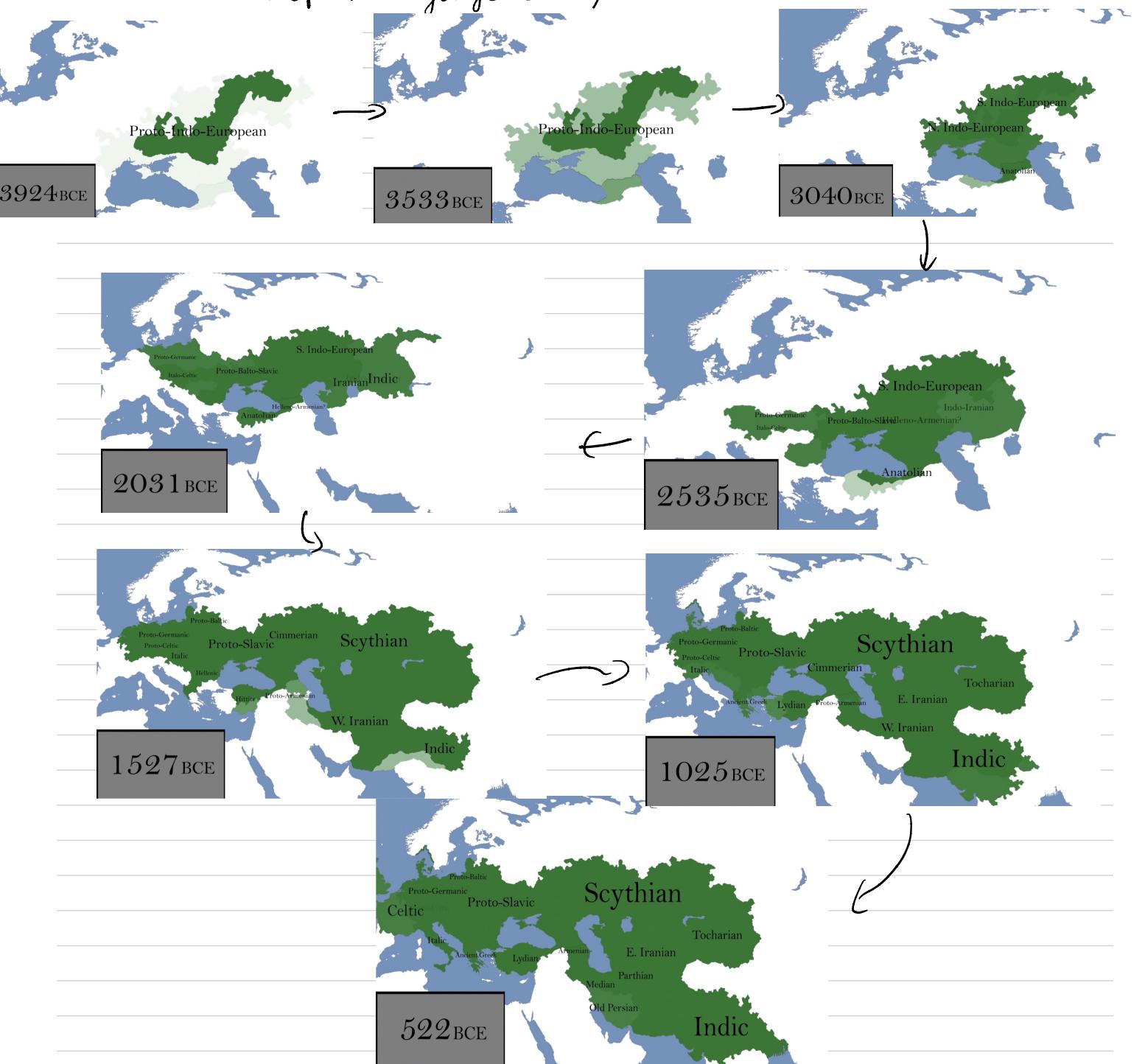
Indo-European Language Family Analysis

- by Madhunil.



Project Proposal.

All Indo-European languages are connected to each other. These languages are known by at least 85% of the entire human population. If this family includes very popular languages such as English, Spanish & Hindi & they cover a large portion in the Eurasia area from Iceland to North India. Hence studying the common roots of these languages is important. As the more we know about it the more we know about this common culture. Which every one has decided to call the Proto Indo-European Culture speaking the common but hypothetical Proto Indo-European language (PIE).



PIE was a hypothetical language which had no evidence in written form but this was the answer given to the 235 years old question which was. Was there a common origin to all Indo-European

language? & Is there any explanation for uncanny similarities found between the languages as far apart as sanskrit & icelandic?

So our current research focuses on applying latest available natural language processing techniques to this 200 year old question.

Our prime objectives in this research would be to gain insights on two important things.

- ▷ In which chronological order did the Indo European languages evolved.
- ▷ Based upon our findings of the semantic & syntactic similarities, can the PIE language be reconstructed.

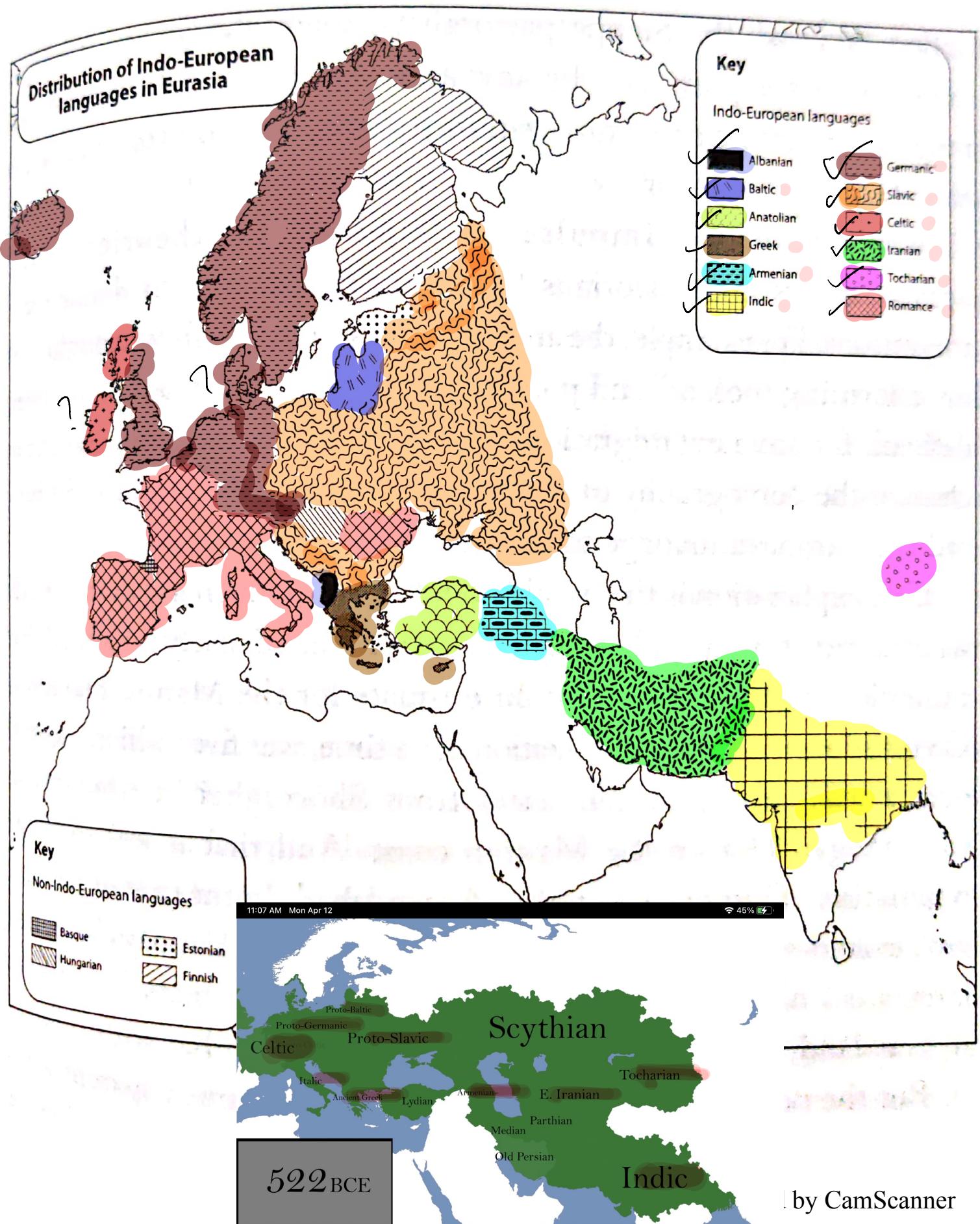
But finding answers to these questions is not an easy task. It requires a lot of research on history, linguistics & machine learning. Apart from the knowledge it will also require efforts on the coding & data collection, cleaning & modeling side. But this being my two year old idea. I have done some research on history, linguistics & data availability, which can provide a head start to us.

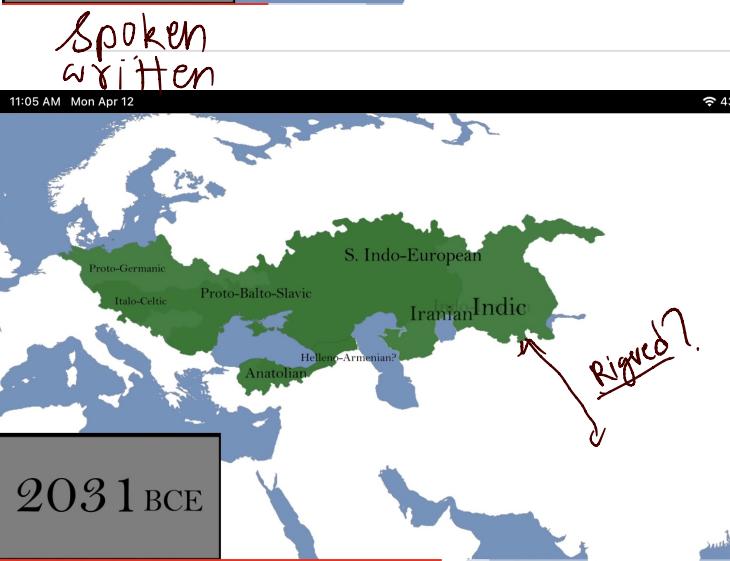
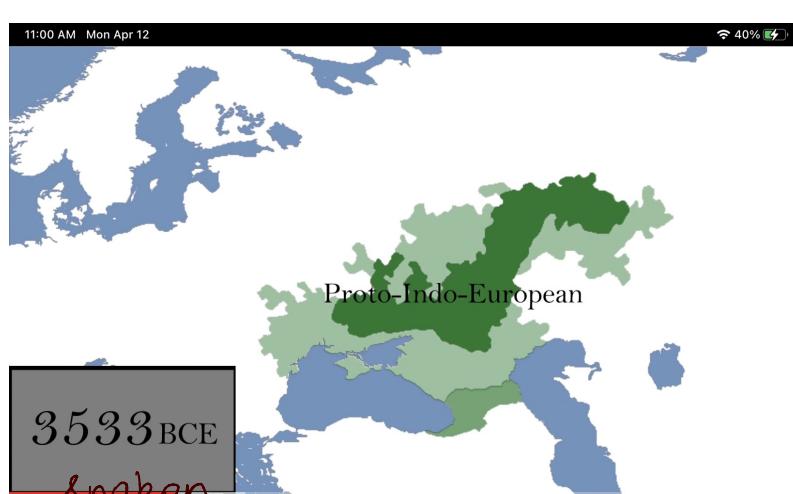
So in this project our aim would be to,

- i) Scrape required data from the internet. It includes text in the given list
[Rigved, Avesta, Iliad, Odyssey, Hesiod, Sappho, other relevant texts]
- ii) First get English translated text & find combined topics also find particular topics for particular texts. for comparision & analysis.
- iii) Get original words for the common topics. & check for semantic & syntactic similarities. (maybe using word embeddings.)
- iv) Decide after above steps are done.

TJ The Last Migrants: The 'Aryans'

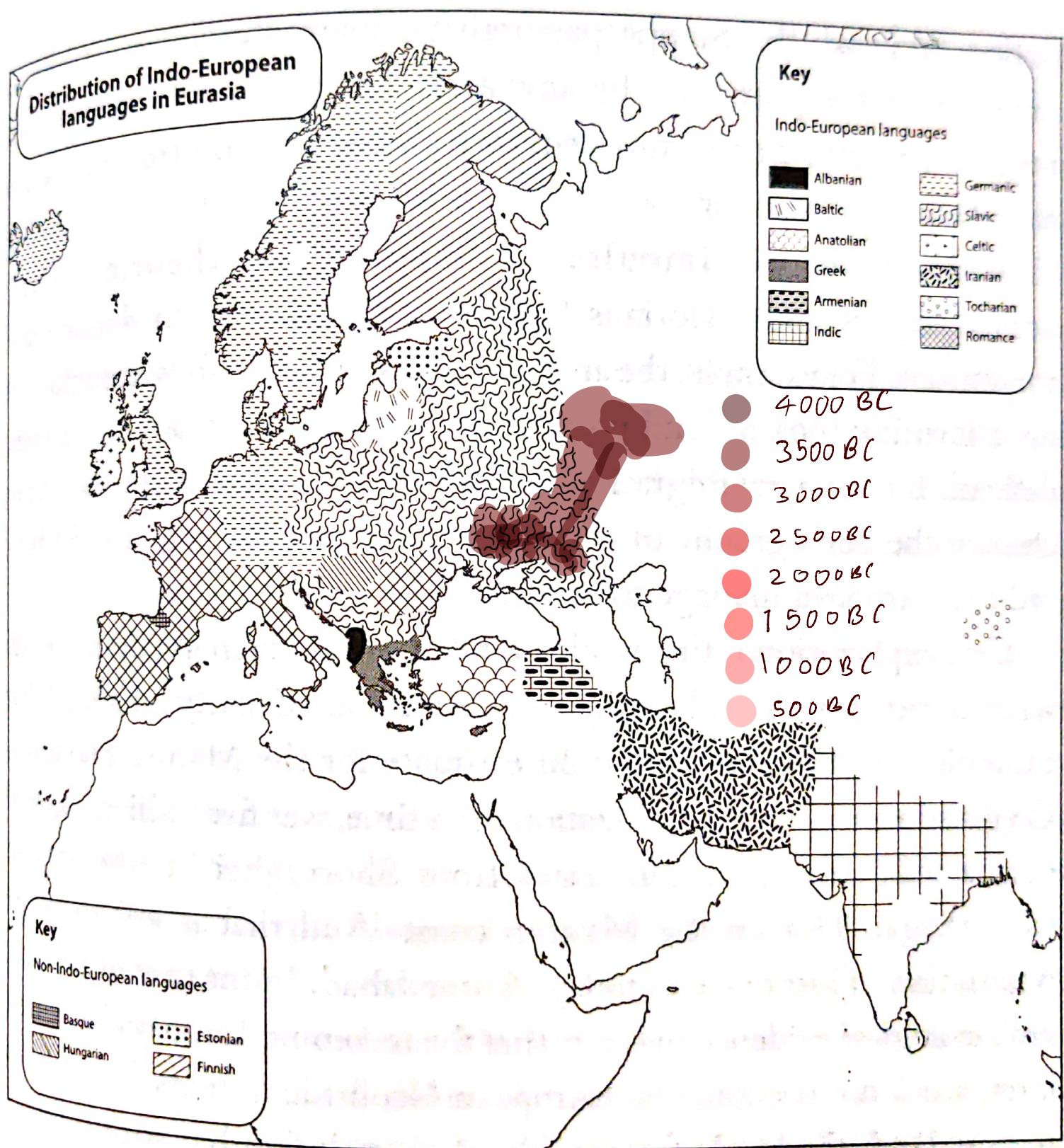
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55 The Last Migrants: The 'Aryans'

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Ancient and Modern Indo-European Languages from the 12 branches

- Sanskrit: **asmi, asi, asti.** — Indic — 1700BC(S) 1500BC(W)
- Avestan: **ahmī, ahī, astī.** — Iranian — (S) — (W)
- Homeric Greek: **eimi, essi, esti.** — Greek — (S) — (W)
- Latin: **sum, es, est.** — Romance — (S) — (S) 300AD(W)
- Gothic: **em, ert, est.** — germanic — (S) — (S) 1680BC - 1178BC
- Hittite: **ēšmi, ēšši, ēšzi.** — ANATOLIA — (S) — (S) 600AD - 900AD
- Old Irish: **am, at, is.** — celtic — (S) — (S) (W)
- Russian: **esmy, esi, esty.** — slavic — (S) — (S) 1500AD(W)
- Lithuanian: **esmi, esi, esti.** — baltic — (S) — (S) (W)
- Albanian: **jam, je, ishtë.** — Albanian — (S) — (S) (W)
- Armenian: **em, es, ê.** — Armenian — (S) — (S) (W)
- Tocharian: **-am, -at, -as.** — Tocharian — (S) — (W)

The inhabited world can be divided into twelve **major regions**.



Major Regions of the Inhabited World

Credit: Essential Humanities

COLOUR KEY TO THE WORLD HISTORY TIMELINE

Middle East
South Asia
East Asia
Europe (and colonial offshoots)
Sub-Saharan Africa
pre-colonial Americas
the Steppe

A comp

The Ancient World

ca. 3500 BC-500 AD

TIMELINE OF THE ANCIENT WORLD

3500-3000 BC	3000-2000 BC	2000-1000 BC	1000 BC-0	0-500
	Mesopotamian civilization ca. 3500-550 BC			inter-Persian Per2
	Egyptian civilization ca. 3000-550 BC		Per1	Ptolemaic Roman/Byz
	Indus civilization ca. 2500-1500 BC	Vedic age ca. 1500-500 BC		Indian kingdom age ca. 500 BC-1200 AD
		ancient China (Xia > Shang > Western Zhou > Han) ca. 2000 BC-500 AD		
		Aegean civilization ca. 2000-1200 BC	Greek age ca. 1200 BC-0	Roman Republic Roman Empire ca. 500 BC-0 ca. 0-500
		early Nubian civilization ca. 2000-1000 BC	Kush ca. 1000 BC-300 AD	Ak
			formative age of Mesoamerica ca. 1500 BC-100 AD	classic age ca. 100-900
			ancient Andean region (Chavin > Moche/Nazca) ca. 1000 BC-500 AD	
			ancient Steppe empires ca. 1000 BC-500 AD	

Per1	First Persian Empire	ca. 550-330 BC
inter-Persian	inter-Persian period	ca. 330 BC-200 AD
Per2	Second Persian Empire	ca. 200-650
Ptolemaic	Ptolemaic Egypt	ca. 330 BC-0
Roman/Byz	Roman > Byzantine Egypt	ca. 0-650
Ak	peak of Aksum	ca. 300-650

TIMELINE OF THE MEDIEVAL WORLD

500-1000		1000-1500	
Per2	age of united Caliphate ca. 650-900		fractured Islamic world ca. 900-present
Roman/Byz	Indian kingdom age ca. 500 BC-1200 AD		early Islamic period ca. 1200-1500
medieval China (Tang > Song > Yuan) ca. 500-1500			
formative Japan (age of Yamato rule) ca. 500-800		Heian age ca. 800-1200	shogunate ca. 1200-1870
medieval Europe ca. 500-1500			
peak of Aksum ca. 300-650	age of pre-colonial civilization (Christian, Islamic, and traditional kingdoms) ca. 650-1880		
classic age of Mesoamerica ca. 100-900		postclassic age of Mesoamerica ca. 900-1520	
medieval Andean region (Chimu > Tiwanaku/Wari > Inca) ca. 500-1530			
age of Turkic empires ca. 500-1200		Mongol	

Per2	Second Persian Empire	ca. 200-650
Roman/Byz	Roman > Byzantine Egypt	ca. 0-650
Mongol	Mongol Empire	ca. 1200-1300

NOTES

the primary power of medieval Eastern Europe was the **Byzantine Empire**

the primary powers of medieval Western Europe were **France**, **England**, and the **Holy Roman Empire**

The Modern World

ca. 1500-present

TIMELINE OF THE MODERN WORLD

1500-present			
fractured Islamic world ca. 900-present			
Mughal Empire ca. 1500-1800	British India ca. 1800-WWII		modern India ca. WWII-
early modern China (Ming > Qing) ca. 1500-WWI			RC PRC
shogunate ca. 1200-1870			imperial Japan ca. 1870-WWII modern Japan ca. WWII-
early modern Europe ca. 1500-1800	modern Europe ca. 1800-present		
age of pre-colonial civilization ca. 650-1880		colonial Africa ca. 1880-1980	MA
colonial United States ca. 1500-1776	formative US ca. 1776-1865	great power US ca. 1865-WWII	superpower US ca. WWII-

RC	Republic of China	ca. interwar period
PRC	People's Republic of China	ca. WWII-present
MA	modern Africa	ca. 1980-present

NOTES

the primary powers of Reformation Europe (ca. 1500-1650) were **Spain**, **France**, and **Austria**

the primary powers of Europe from the Enlightenment to WWI (ca. 1650-WWI) were **France**, **Britain**, **Austria**, **Prussia** (later Germany), and **Russia**

the primary powers of Europe since WWI (ca. WWI-present) have been **France**, **Britain**, **Germany**, and **Russia**

the two superpowers of the Cold War (ca. 1945-91) were the **United States** and **USSR**

since the Cold War, the **United States** has reigned as the world's only superpower;

the "unipolar moment" of the 1990s, ending with the fall of the Soviet Union.

Golden ages in the past.

1st Han dynasty 206 to 220 for 14 years

2nd Golden age of India 300 to 600 for 300 years.

3rd Tang dynasty 618 to 907 for 289 years

Ming dynasty 1368 to 1644 for 661 years

Islamic Golden age 622 to 1258 for 636 years