

FROM OLD EUROPE TO ROMAN PROVINCES

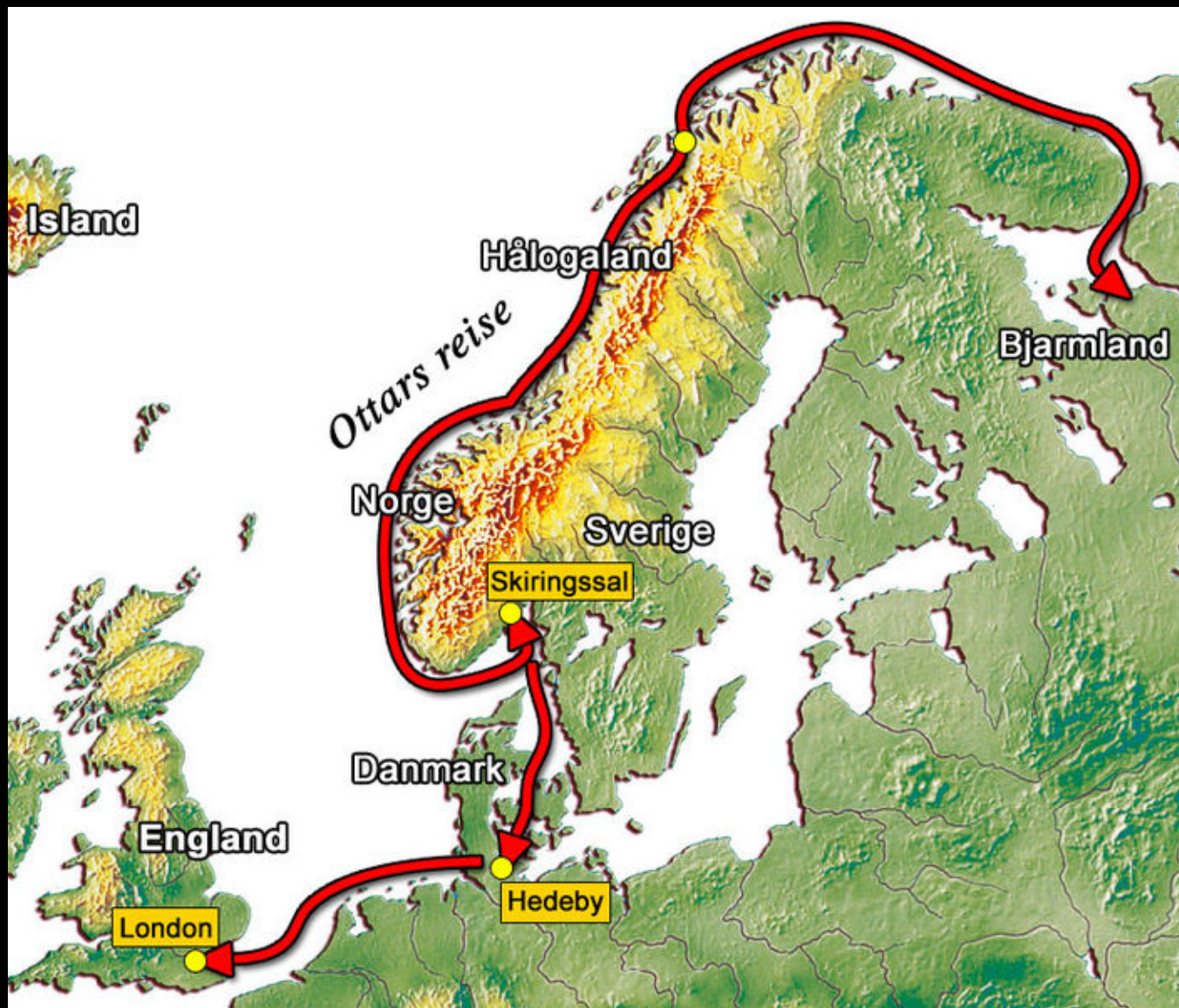


KENNETH W. HARL, TULANE UNIVERSITY
Scientific American Cruise, July 5-15, 2013

THE ITINERARY, JULY 5-15, 2013



VOYAGE OF OHTHERE (OTTAR), ca. 890



Skiringssal (OE Siringes heal), today Kaupang



NORWAY

Oslo Fjord

Vestfold

Upplands

Trondelag

Halogaland

Kjolen Mountains (Keel)

CHRONOLGY: FROM OLD EUROPE TO IMPERIAL ROME

13,000-10,000 B.C.	Nautifan Culture (Eastern Turkey)	Domestication of plants & animals
10,000-8,500 B.C.	Aceramic Neolithic 1 (Fertile Ctescent)	Settlements & Monumental architecture (Gobekli Tepe)
8,500-6,250 B.C.	Aceramic Neolithic 2	Villages (Catal Huyuk)
6,250-4,500 B.C.	Neolithic	Spread of Agriculture in Near East & Southeastern Euorpe
5,500-4,500 B.C.	Starcevo Culture ‘Old Europe’	Agriculture & Metallurgy Central Europe & Balkans Neolithic Villages
	Western Neolithic	Spain, France & British Isles
	Ertebolle Cuture	Scandinavia; pottery Kitchen Middens

CHRONOLGY: FROM OLD EUROPE TO IMPERIAL ROME

4100-1600 B.C.	Western Neolithic Cultures	Megalithic Monuments (3100-1600 B.C.)
4100-2800 B.C.	Funnel Beaker Culture	Central Europe & Scandinavia
4,000 B.C.	Pontic-Caspian Culture (steppe nomads)	Domestication of horse Proto-Indo-Europeans (PIE)
3500-2300 B.C.	Yamna Culture	Invention of Wheel
3300 B.C.	Bronze Age in Near East	
3100 B.C.	Uruk Period (Sumer) Unification of Egypt	Cities & Writing
2900-2350 B.C.	Corded Ware Culture	Migration of Proto-Germanic and Celtic Speakers west
2800-1800 B.	Bell Beaker Culture	Western Europe
2050-1200 B.C.	Northern Bronze Age	Scandinavia

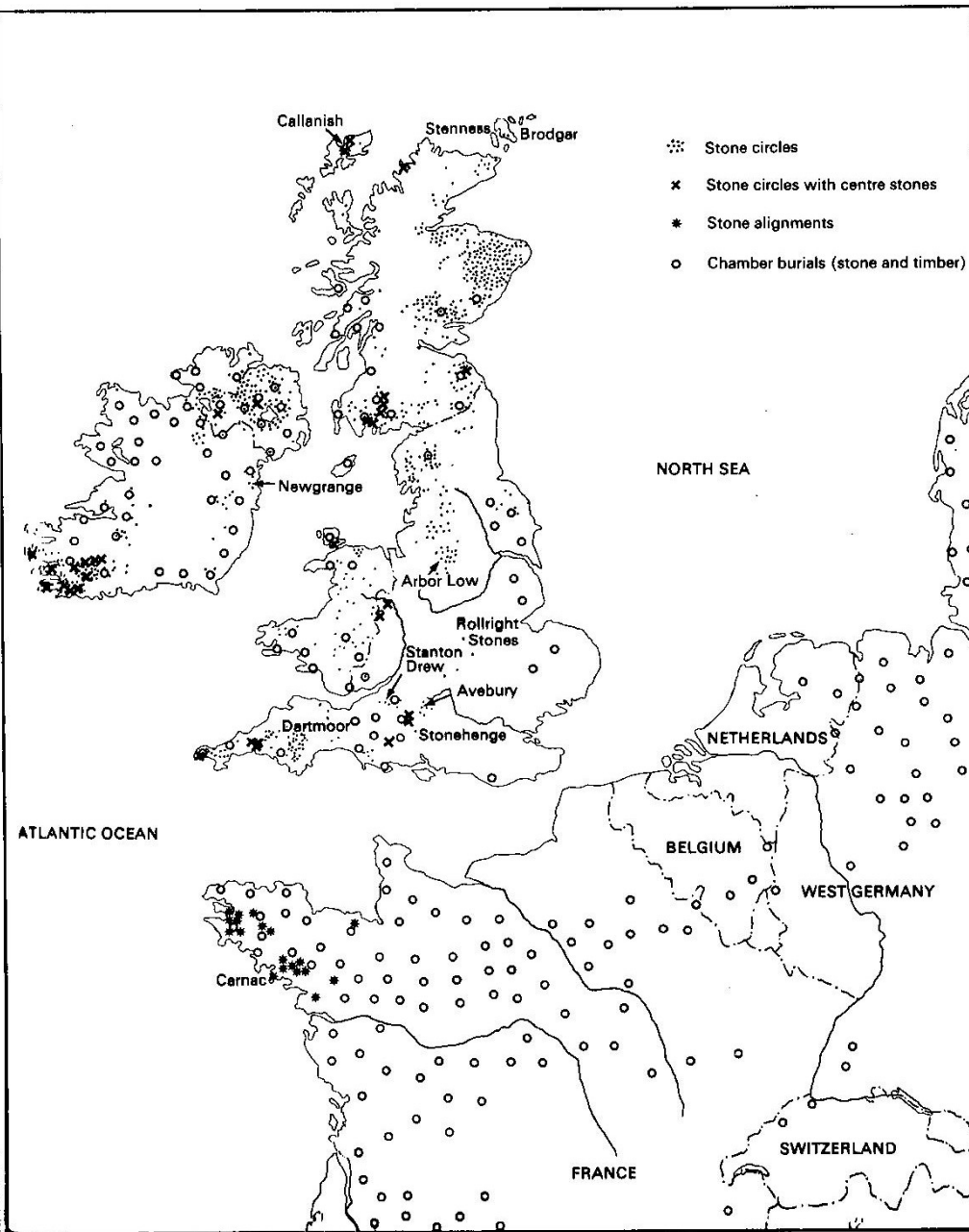
CHRONOLGY: FROM OLD EUROPE TO IMPERIAL ROME

1200-700 B.C.	Early Iron Age	Collapse of Urban Civilizations in Near East
800-450 B.C.	Hallstatt Culture	Celtic Migrations to Britain, Central Europe & Spain
450-50 B.C.	La Tene Civilization	Towns (<i>oppida</i>)
58-49 B.C.	Roman Conquest of Gaul Expansion of Germanic peoples into Central Europe	
16 B.C.-9 A.D.	Augustus fixes northern frontier (<i>limes</i>) of Roman Empire	
43-86	Roman Conquest of Britain	
305-476	Collapse of Western Roman Empire	
400-600	Age of Migrations Germanic peoples settle in Roman West	

OLD EUROPE: AGRICULTURE AND METALLURGY



MEGALITHIC MONUMENTS 3100-1600 B.C.



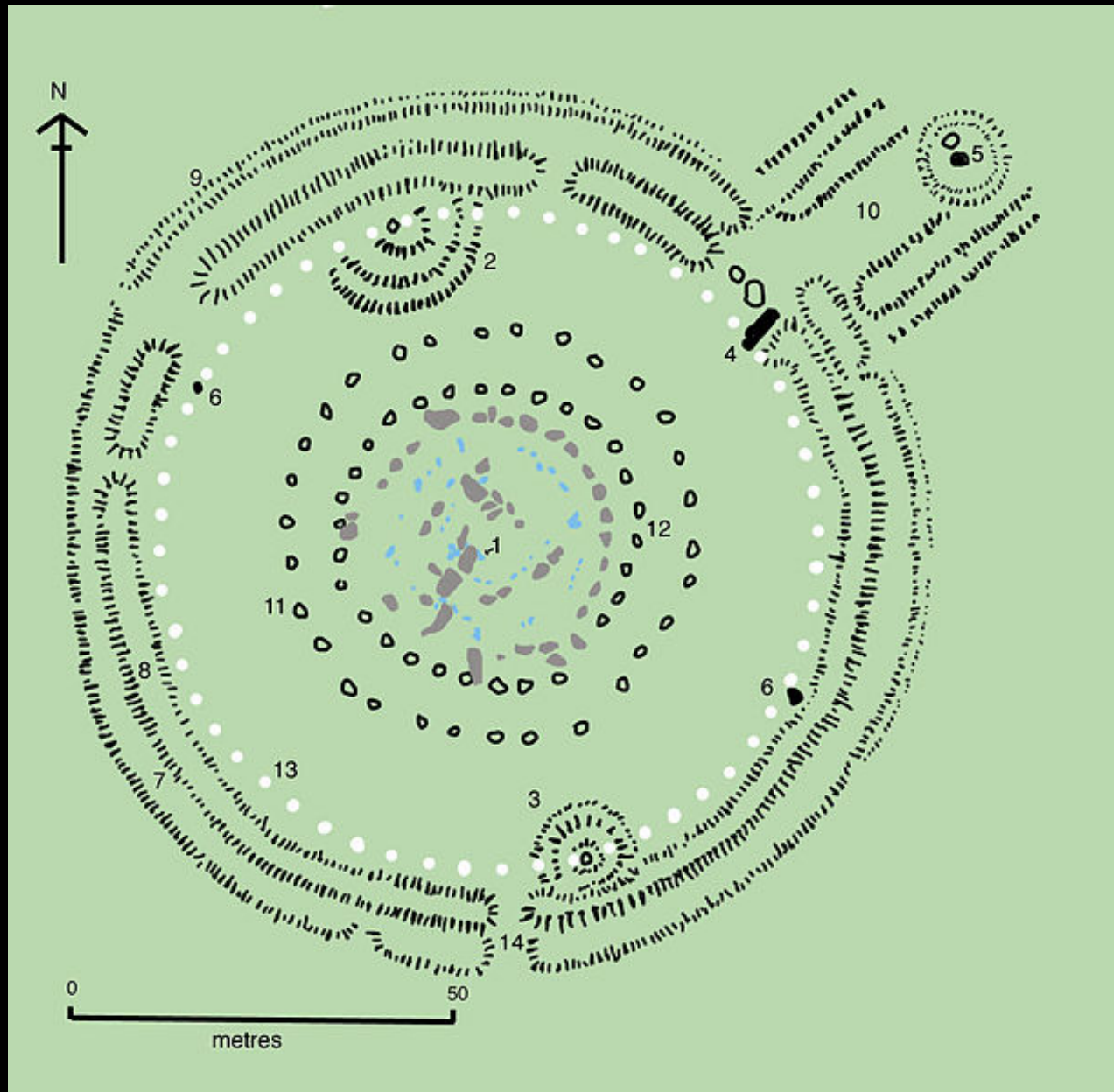
MEGALITHIC EUROPE: STONEHENGE



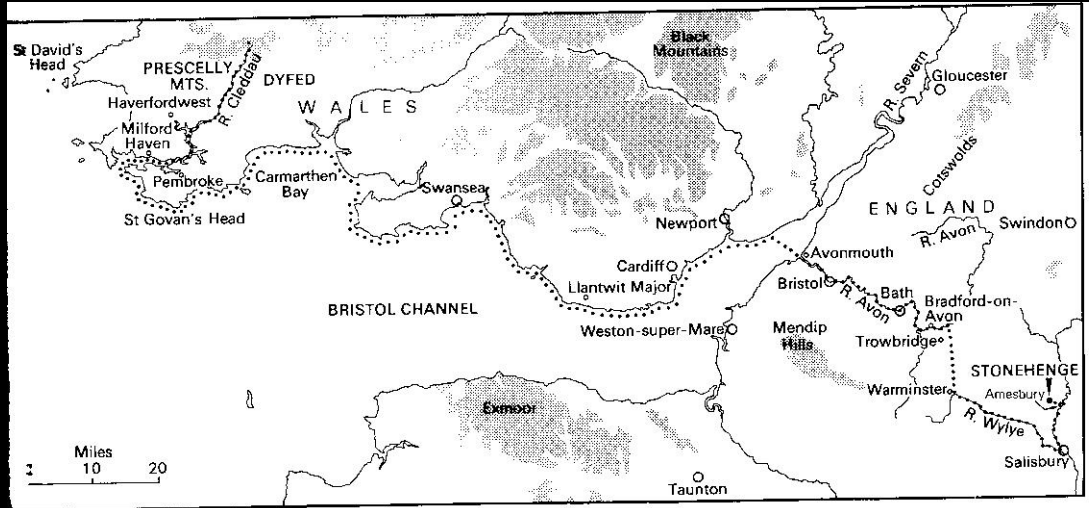
STONEHENGE: BUILDING PHASES, 3100-1600 B.C.

Phase 1, ca. 3100 B.C.	Ditch Embankment & Aubrey Circle Cremation burials
Phase 2, ca. 3000 B.C.	First Timbered Structure in enclosure
Phase 3a, ca. 2600 B.C.	Bluestone Circle; Northeast Entrance widened & aligned on Midsummer Sunrise and Midwinter Sunset Heelstone erected
Phase 3b, ca. 2600-2400 B.C.	Sarsen Stones erected; circle of 60 stones and 5 trilithons (15 stones)
Phase 3d, 2280-1930 B.C.	Rearrangement of Bluestone circle
Phase 3e, 1930-1600 B.C.	Removal of bluestones to form Bluestone horseshoe configuration
1600 B.C.	Abandonment of Sanctuary

STONEHEN GE: PLAN, PHASE III



STONEHENGE: SOURCE OF STONES



Blue Stones : Prescelly Mts., Wales

Sarsen Stones: Marlborough Downs

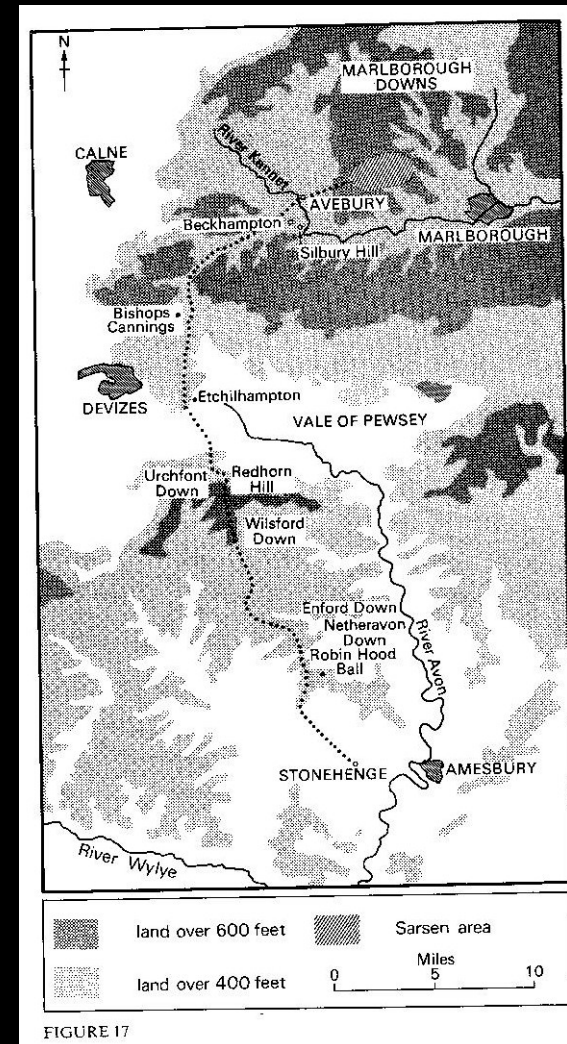
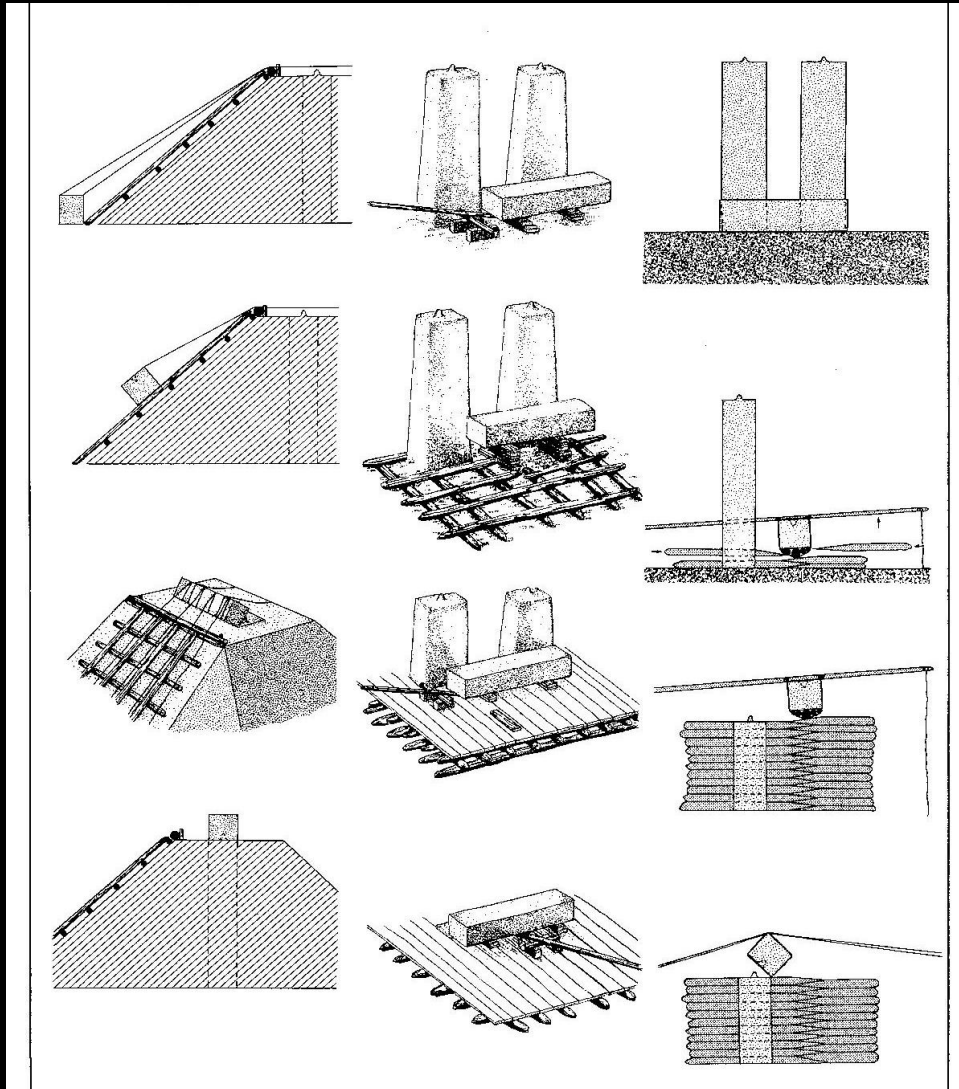
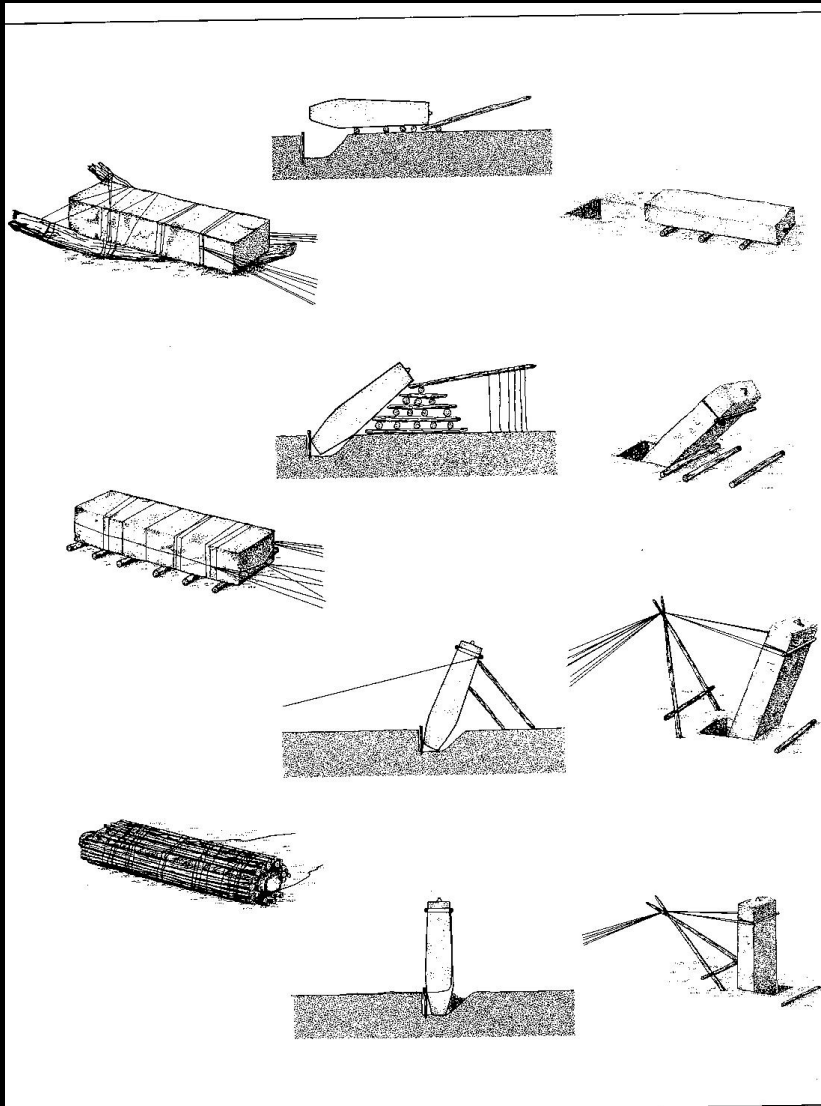
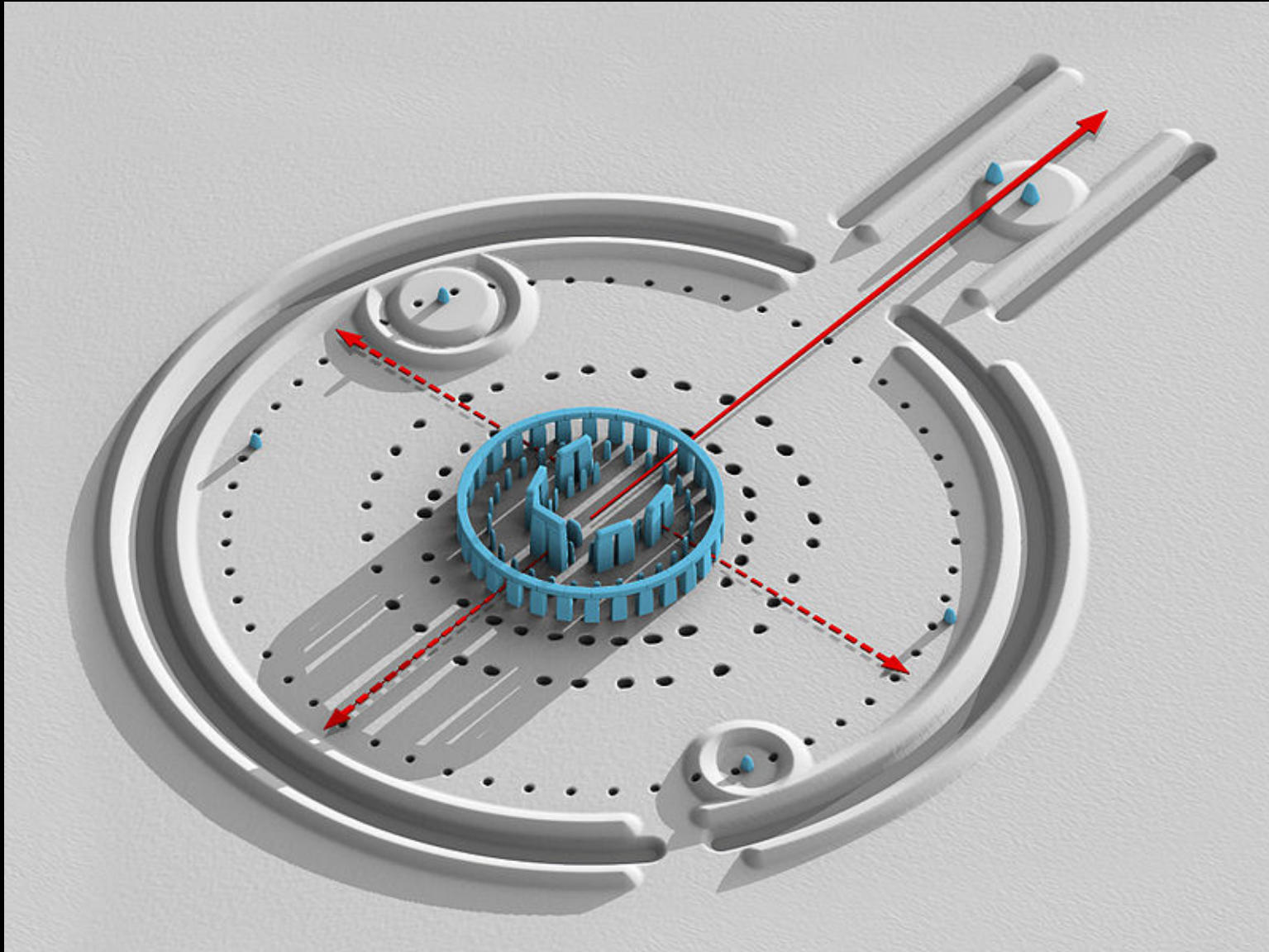


FIGURE 17

STONEHENGE: CONSTRUCTION



STONEHENGE: OBSERVATORY



EVOLUTION OF INDO-EUROPEAN LANGUAGES

Daughter Language Families of Indo-European , 4500 B.C.

4000 B.C. Anatolian (Hittite, Luvian, Palaic)

3700-3300 B.C. Tocharian

3000 -2500 B.C. Celtic and Italic Languages

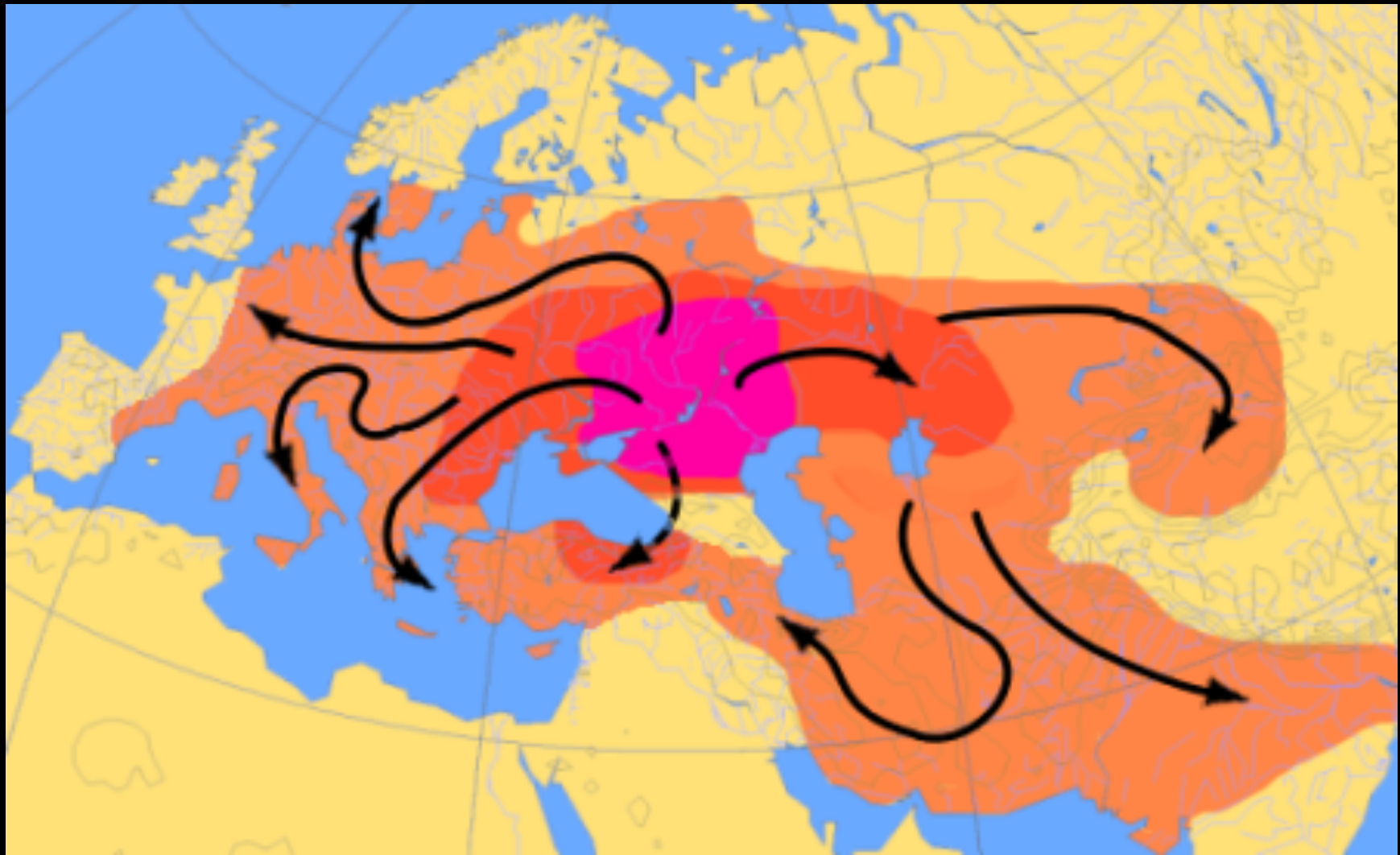
**2500-2000 B.C. Greek
Thraco-Illyrian Languages
Armenian
Germanic Languages
Balto-Slavic
Indo-Iranian**

Division into Centum and Satem Branches, 3000-2500 B.C.

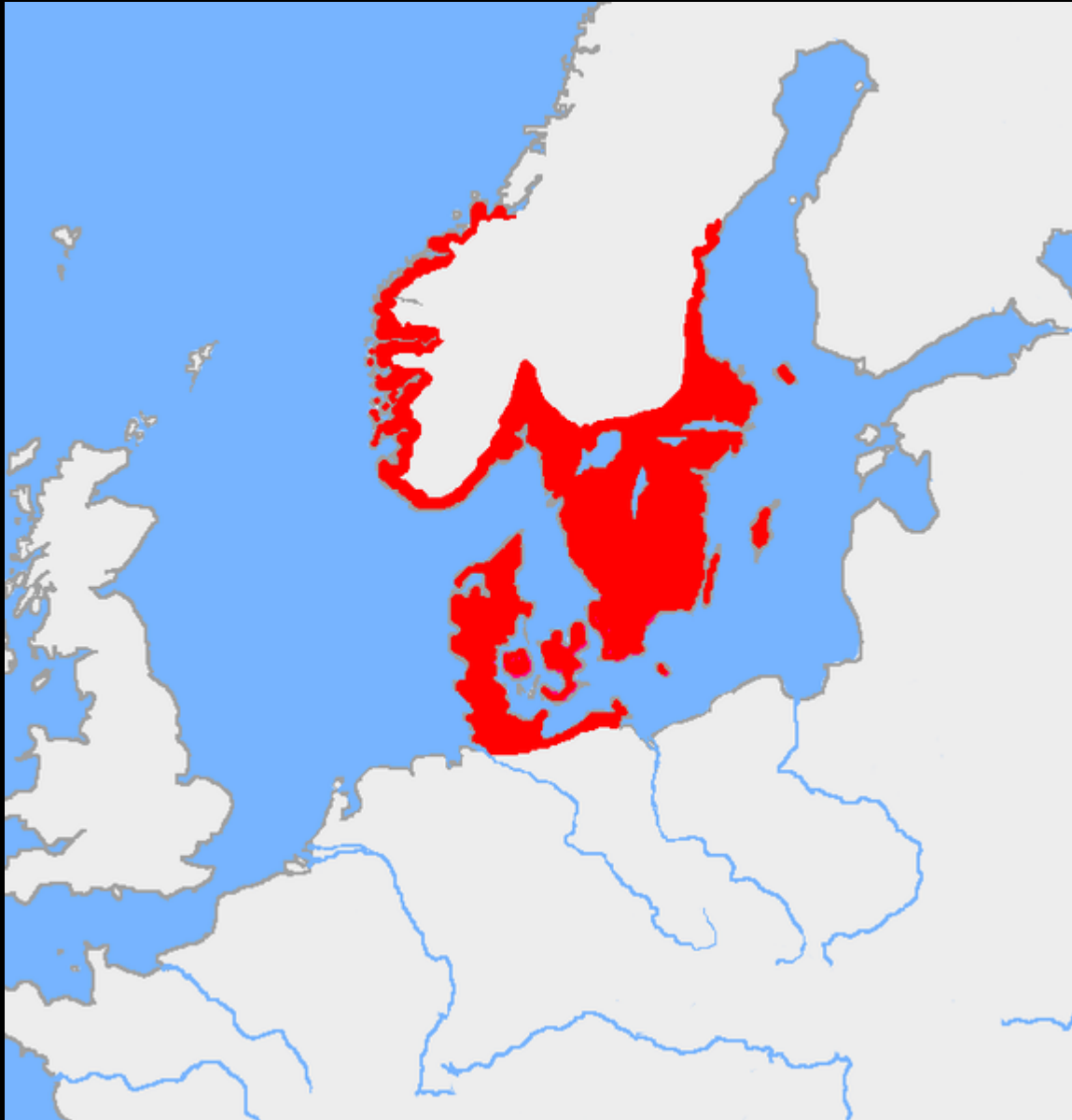
**Centum: Celtic, Italic, Greek, Thraco-Illyrian,
Armenian, and Germanic**

Satem Balto-Slavic, Indo-Iranian

MIGRATION OF INDO-EUROPEAN SPEAKERS



THE NORTHERN BRONZE AGE, 2050-1250 B.C.



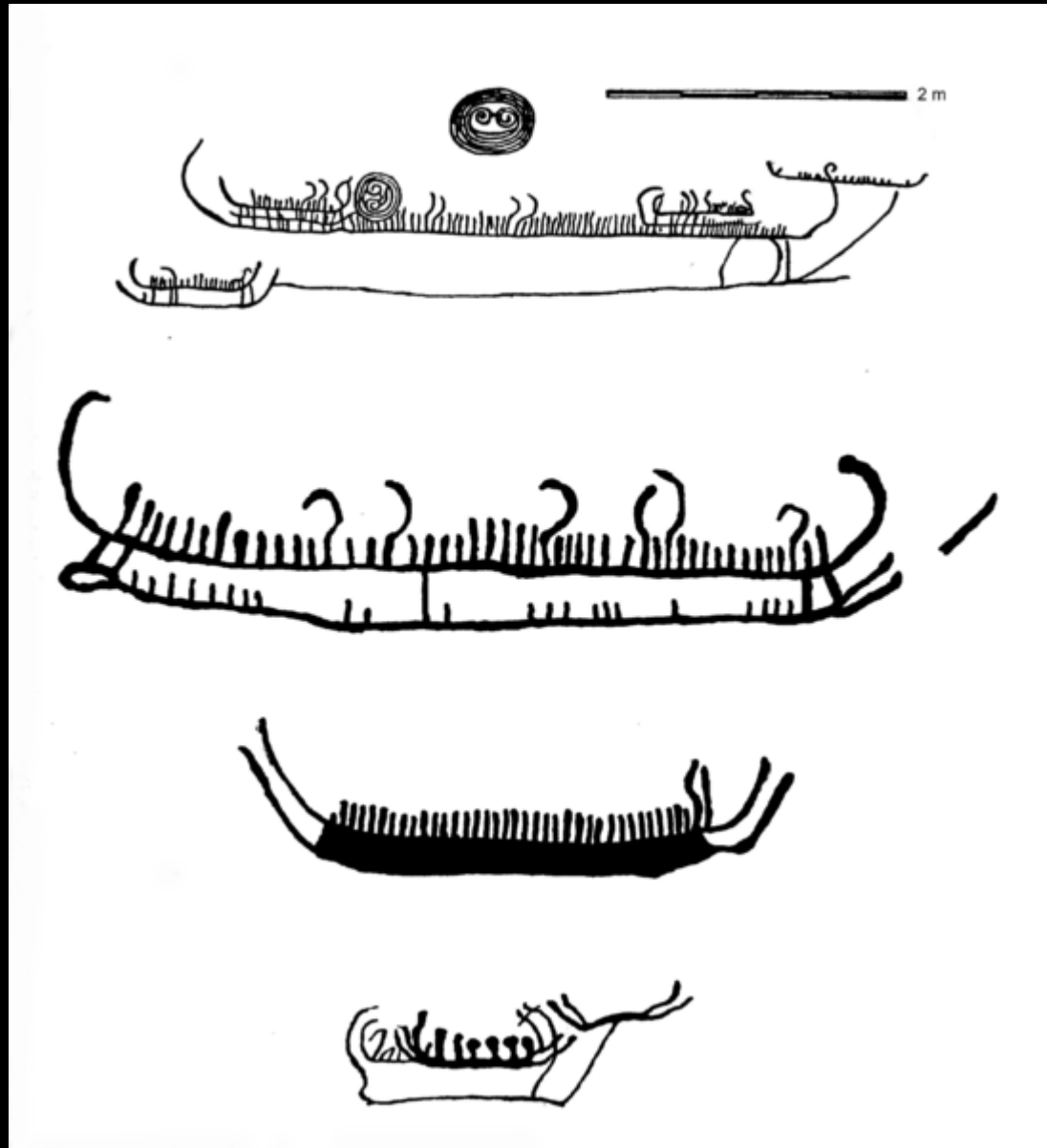
THE AMBER ROAD, ca. 2200-1200 B.C.



THE AMBER ROAD, ca. 2200-1200 B.C.



THE NORTHERN BRONZE AGE, 2050-1250 B.C.



Ship Rock Carving
Bardal, Norway

THE NORTHERN BRONZE AGE, 2050-1250 B.C.



Ship Rock Carving Haljesta, Norway

Northern Bronze Age: Megalithic Burials



Gravhog, Gardstagna, Megalithic Burial

Northern Bronze Age: Sun Chariot, Trundholm



Northern Bronze Age: Sun Chariot, Trundholm

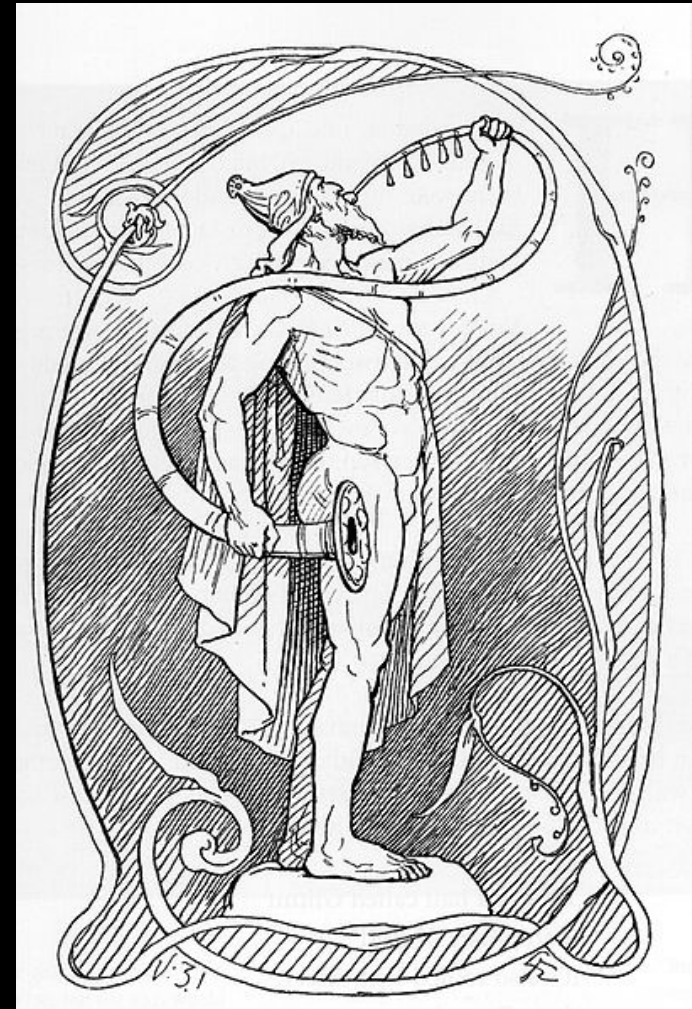


Snorri Sturluson (1179-11242), *Prose Edda*: *Árvakr* and *Alsviðr*

THE NORTHERN BRONZE AGE, 2050-1250 B.C.



Bronze Trumpets, Lurer, Denmark



Heimdall & Gjallarhorn

THE NORTHERN BRONZE AGE, 2050-1250 B.C.



Rock Carving, Tanumshede

Viso Helmet, Denmark, ca. 1500 B.C.



Dannevirke, New Zealand



Hagar the Horrible 2006

CELTIC EUROPE: HALLSTATT (800-450 B.C.) & LA TENE (450-50 B.C.)



SCANDINAVIA IN CELTIC IRON AGE, 500-50 B.C.



Gundestup Cauldron, Himmerland, Denmark

SCANDINAVIA IN CELTIC IRON AGE, 500-50 B.C.



Inner plate from the Gundestrup cauldron, showing a horned figure seated among animals.

Gundestup Cauldron, Himmerland, Denmark

SCANDINAVIA IN CELTIC IRON AGE, 500-50 B.C.



Gundestup Cauldron, Himmerland, Denmark

SCANDINAVIA IN CELTIC IRON AGE, 500-50 B.C.



Strettweg Ritual Cart
Styria (Hallstatt, 700 B.C.)



SCANDINAVIA IN CELTIC IRON AGE, 500-50 B.C.

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f u þ a r k h n i a s t b m l r

RUNES
Elder Futhark

Younger Futhark

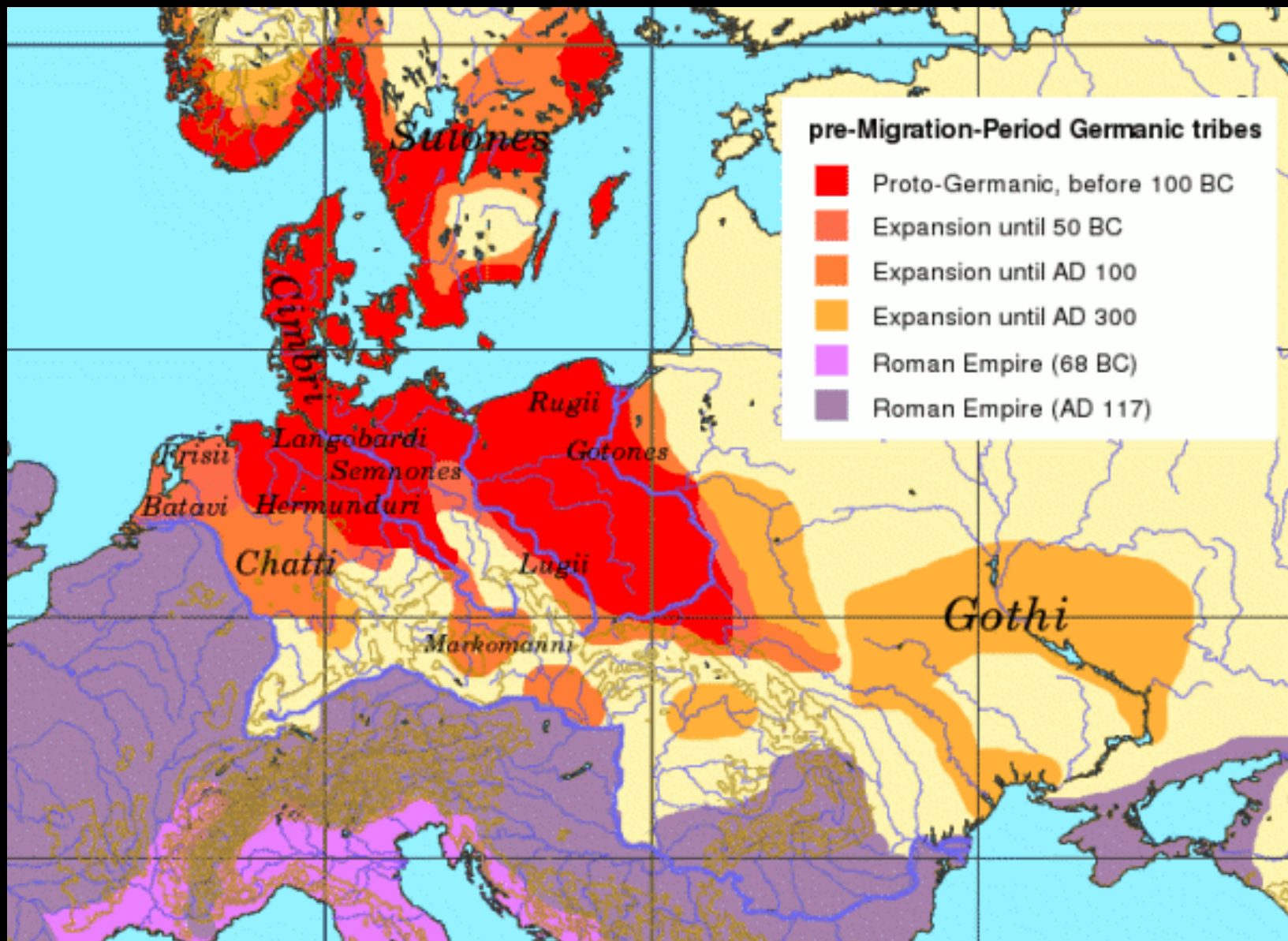


Gallehus Horns
Denmark, ca. 400 A.D.

SCANDINAVIA IN ROMAN AGE, 50 B.C.-400 A.D.



EXPANSION OF GERMANIC PEOPLES, 50 B.C.-400 A.D.



ROMAN EMPIRE: CREATION OF LIMES (FRONTIER)



Hadrian's Wall

ROMAN EMPIRE: CREATION OF *LIMES* (FRONTIER)



Hadrian's Wall, Housesteads



Rhine Limes, Rainau, Watchtower

ROMAN EMPIRE: CREATION OF LIMES (FRONTIER)



Hadrian's Wall, Reconstructon of Fort

ROMAN EMPIRE: CREATION OF LIMES (FRONTIER)

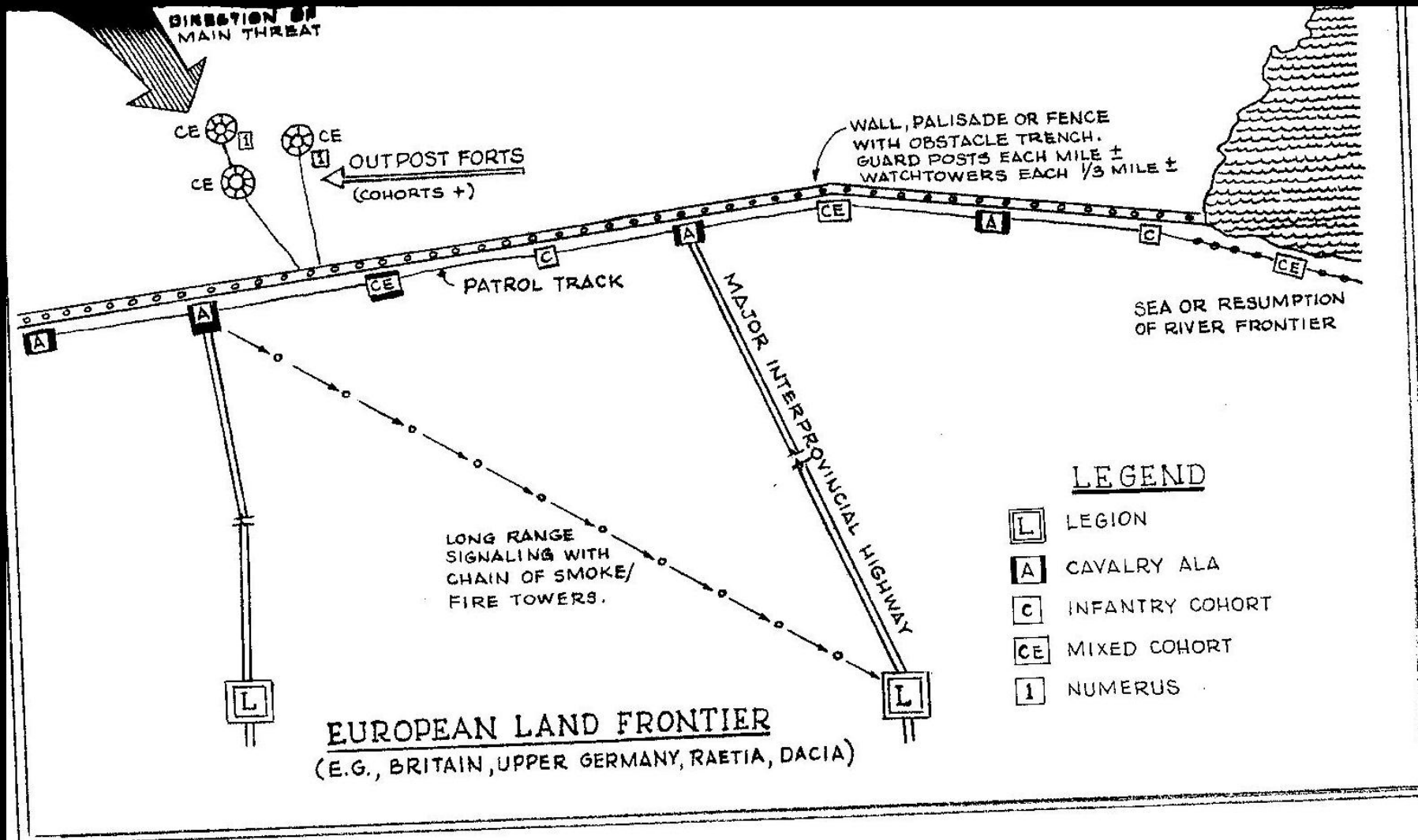
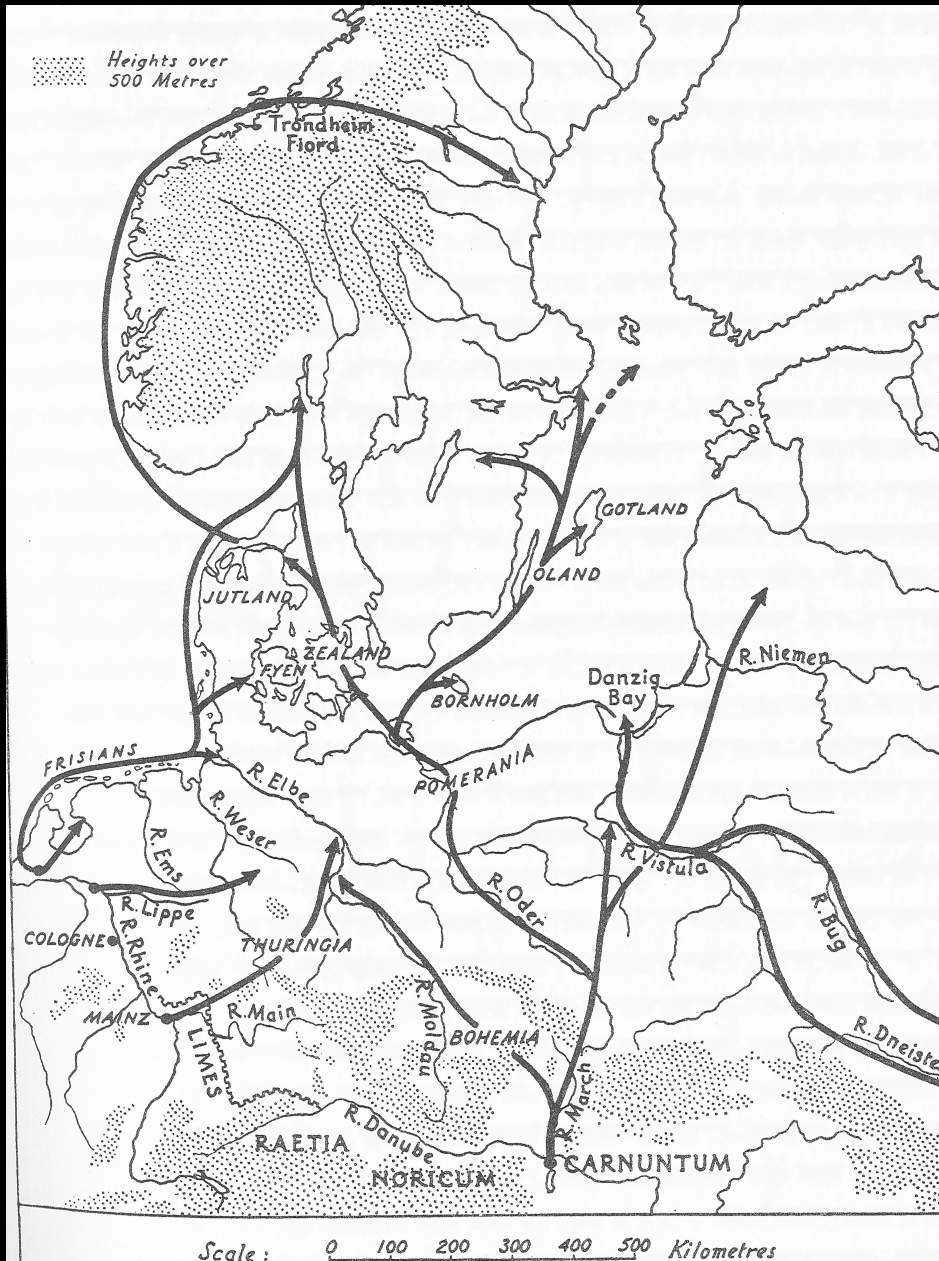


FIG. 2.2. MODELS OF FRONTIER ORGANIZATION II

SCANDINAVIA IN ROMAN AGE, 50 B.C.-400 A.D.



ROMAN TRADE ROUTES

RHINE

DANUBE

WESER

ELBE

VISTULA

SCANDINAVIA IN ROMAN AGE, 50 B.C.-400 A.D.



Imported Roman Glass

SCANDINAVIA IN ROMAN AGE, 50 B.C.-400 A.D



Roman Republic
Silver denarius
"bigatus"
Moneyer A. Terentius Varro,
206-200 B.C.



Roman Republic
Silver denarius
"serratus"
Moneyer C.Publicius
80 B.C.,

SCANDINAVIA IN ROMAN AGE, 50 B.C.-400 A.D

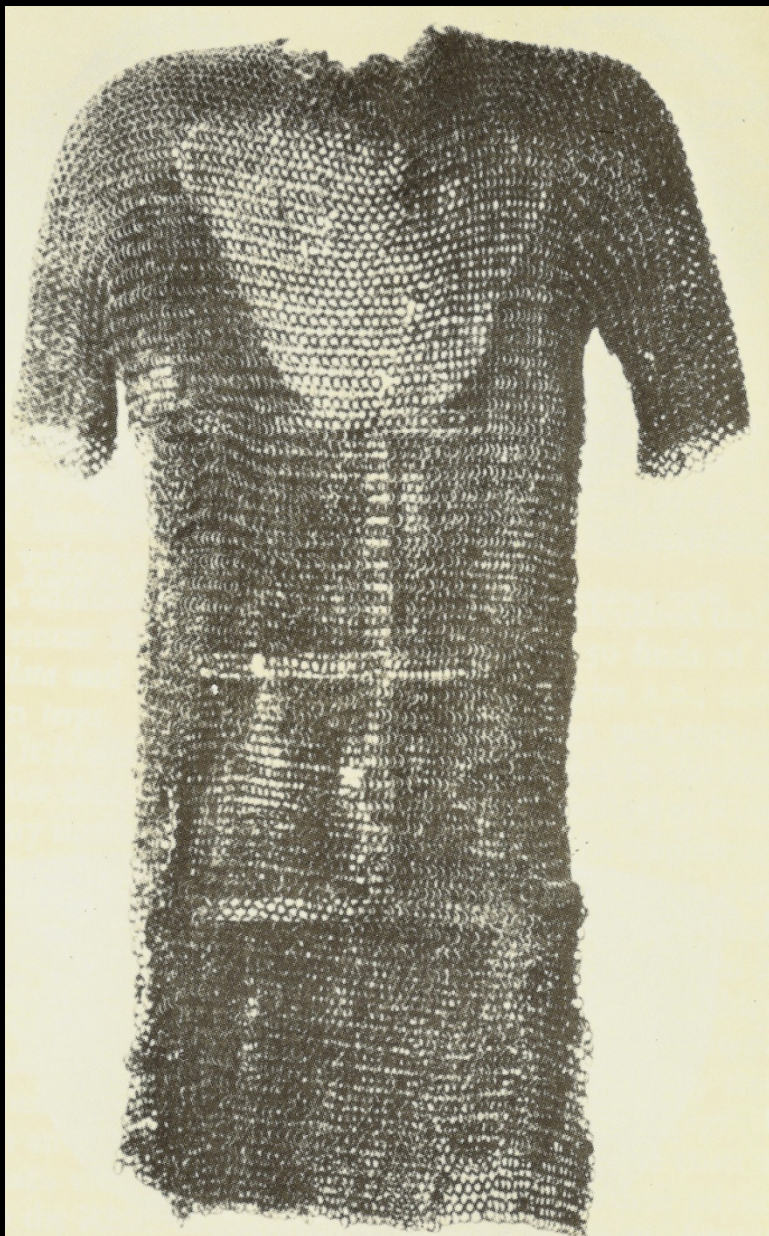


Augustus, silver denarius
Lugdunum (Lyons) mint
2 B.C.-12 A.D.



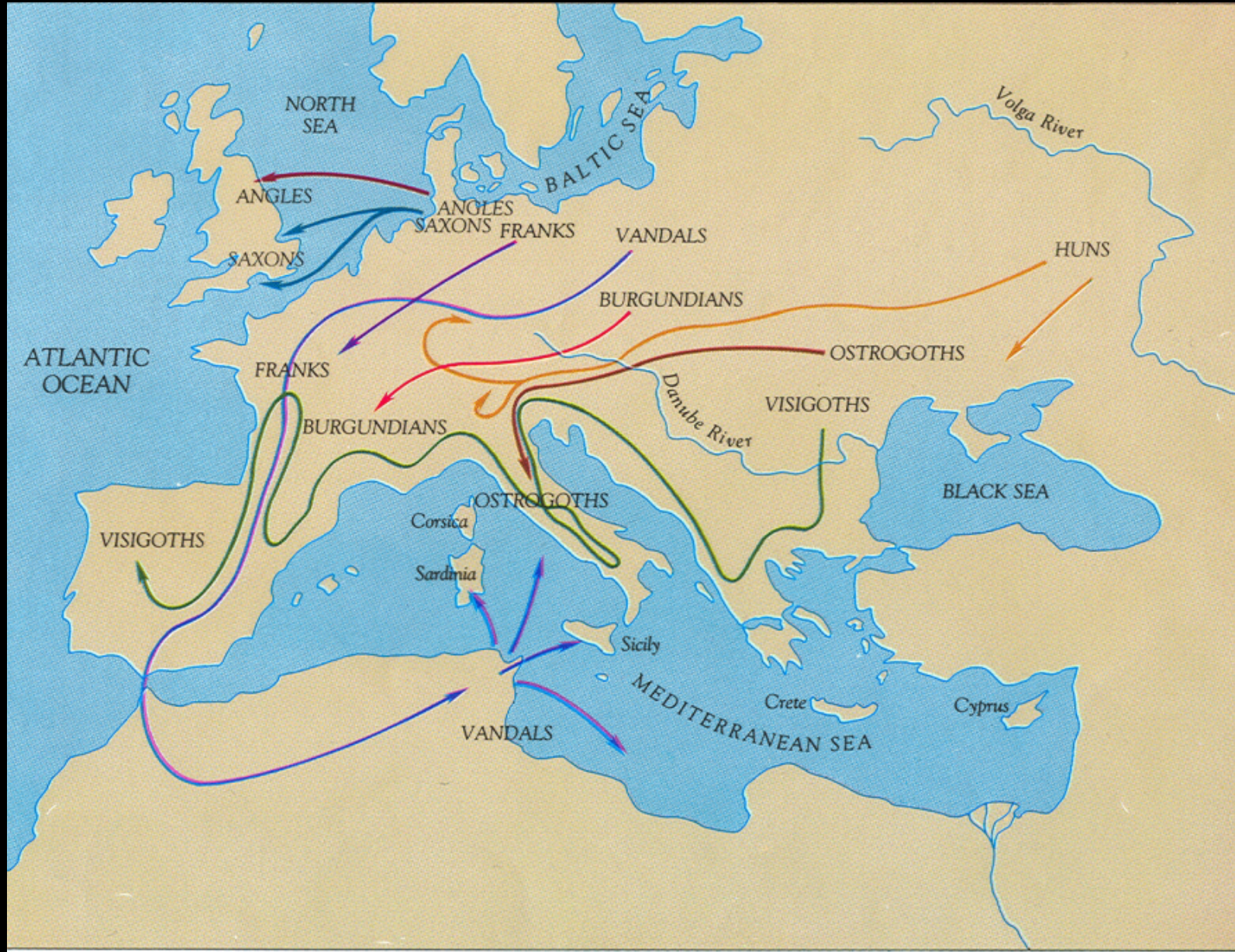
Germanic Imitative Silver
denarius, ca. 100-250 A.D

SCANDINAVIA IN ROMAN AGE, 50 B.C.-400 A.D.




**Chain Mail (Brynja)
Vimose Deposit,
Funen, Denmark,
ca. 150 -200 A.D.**

THE AGE OF MIGRATIONS, 400-600 A.D.



THE AGE OF MIGRATIONS, 400-600 A.D.



 *The Barbarian Kingdoms, ca. 526. By the sixth century, the Western Roman Empire had been replaced by smaller kingdoms ruled by barbarian kings granting only nominal recognition to the Emperor.*