

11	÷	DYS455=8

Α	1	DYS390≤22
в	1	DYS390>22

AA	D¥S390≤22	£	D¥S557≤15
AB	DYS390≤22	£	DYS557>15

BA	1	DYS390>22	٤	DYS511≤	9
BB	÷	DYS390>22	£	DYS511>	9

#### AABA: DYS390≤22 & DYS557≤15 & DYS456>14 & GATA-H4≥10 AABB: DYS390≤22 & DYS557≤15 & DYS456>14 & GATA-H4<10

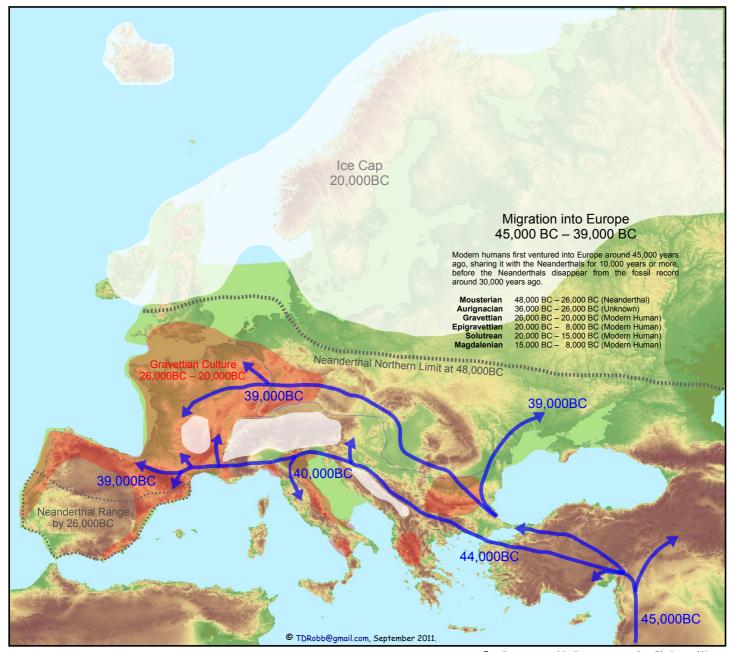
Beware: The above decisions, based on STR values, are only a guide to assigning 11 people to an 11 STR Clan. Back-mutations, and other independent mutations, can potentially cause any particular 11 person to be mis-assigned to the wrong clan. Maybe 5% or more are affected.

**Beware:** Note DY\$459a=7 is a completely different branch, that by chance convergence ends up erroneously in BAA or BAB. DY\$459a=7 peaks in Poland, and is associated with the Z63+ mutation.

Clan Origin Homeland Size SNP Denmark & England Norway & Sweden 4% 20% L22+ L22+ (most) 11-BBB 2.500 BC 11-BBA 3,400 BC 11-**BAB** 11-**BAA** 3,500 BC 3,200 BC Finland (East) Finland (West) 6% 9% L258+ L258+ 11-**ABB** 11-**ABA** 3,400 BC 3,400 BC 5% 13% Norway Denmark I1-AABB 1,900 BC Ireland & Scotland I1-AABA 3,700 BC Wales & England 6% 9% L338+ I1-AAA 4,400 BC Germany 28% 11 5,500 BC Northern Europe 100% M253+

Beware: The dates of origin given above are the TMRCA for the I1 Clans. They rely on various STR mutation rates and a 30 year generation time, plus other assumptions. Commonly used rates are used here, but changing those rates and assumptions will change the above dates of origin.

Beware: The range and distribution of all haplogroups in Europe have been complicated by the comparatively recent Migration of "Barbarians" (before about 500 AD) and the Migration of "Vikings" (around 800 AD to 1100 AD). The "Barbarians" were mainly Germanic tribes from east of the Rhine and north of the Danube, comprising of the Goths (Visigoths and Ostrogoths), Vandals, Lombards, Burgundians, Franks, and Suebi etc. Also the Angles, Saxons, and Jules, Julis the non-Germanic Huns from Central Asia.



Reference: "A new radiocarbon revolution and the dispersal of modern humans in Eurasia", by Mellars, Nature 2006; "Rapid ecological turnover and its impact on Neanderthal and other human populations" by Finlayson et al., TRENDS in Ecology and Evolution, 2007

For other maps, see http://www.goggo.com/terry/Haplogroupl1/

#### Palaeolithic Population Estimates for Europe

36,000 BC - 26,000 BC:	3,000 to	30,000 people, with 1/3rd in Franco-Cantabrian region; Neanderthal population is 1,000 to 10,000.
26,000 BC - 23,000 BC:	3,000 to	30,000 people, with 1/3rd in Franco-Cantabrian region; Neanderthals extinct by 26,000 BC.
23,000 BC - 17,500 BC:	3,000 to	30,000 people, with 1/3rd in Franco-Cantabrian region;
17,500 BC - 14,000 BC:	5,000 to	50,000 people, with 2/3rd in Franco-Cantabrian region;

14,000 BC - 12,000 BC: 20,000 to 200,000 people, with 2/3rd in Franco-Cantabrian region;

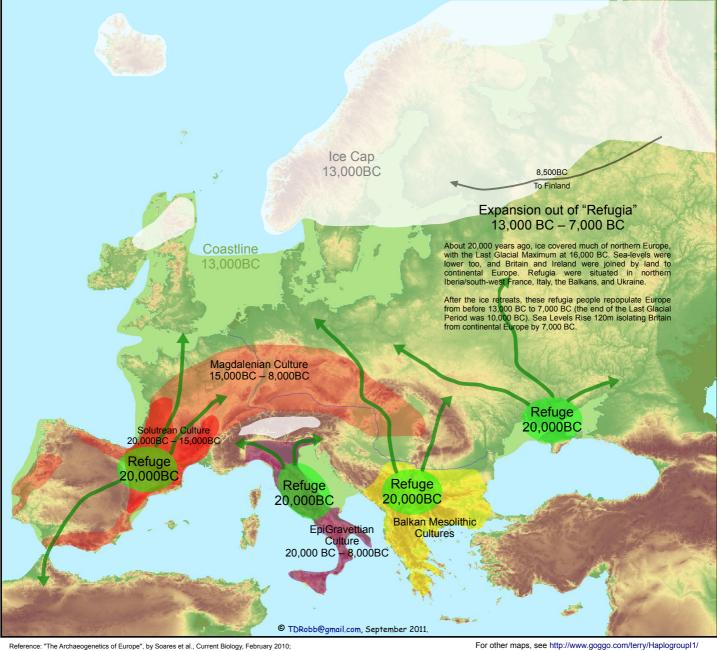
Reference: "Estimates of Upper Palaeolithic meta-population size in Europe from archaeological data" by Bocquet-Appel et al., Journal of Archaeological Science, 2005; "Targeted Retrieval and Analysis of Five Neandertal mtDNA Genomes", by Briggs et al., Science, 2009

Mousterian Culture:	Characterized by flake-based technology. Bifacial tools rare. Exclusively associated with Neanderthals in Europe.
Aurignacian Culture:	Characterized by blade-based tools; antler, ivory and bone projectile points; body ornamentation and cave art.
Gravettian Culture:	Characterized by small pointed bladelets; construction of large skin tents on mammoth bone frames; and the first spear throwers and eyed needles. Venus figurines.
Epigravettian Culture:	Characterized by the reduction of stone tools. Use of bone is rare. Evolved from the Gravettian.
Solutrean Culture:	Characterized by fine bifacial leaf points, light projectiles, barbed arrowheads; body ornamentation and cave art. Bow-and-arrow originates with this culture.
Magdalenian Culture:	Emerges from the Solutrean. (Alternatively emerges from the Badegoulian Culture, which arose in Eastern Europe at the LGM and then spread into the western refugia.)

Reference: "The Archaeogenetics of Europe" by Soares et al., Current Biology, 2010

extended across Europe and into the Near East. extended across Europe. Fragmented and retreated towards the Last Glacial Maximum (LGM).

- in Italy and perhaps also in Central/Eastern Europe. in Western Europe. in mid-latitudinal Western Europe. Linked with the post-LGM population expansion .



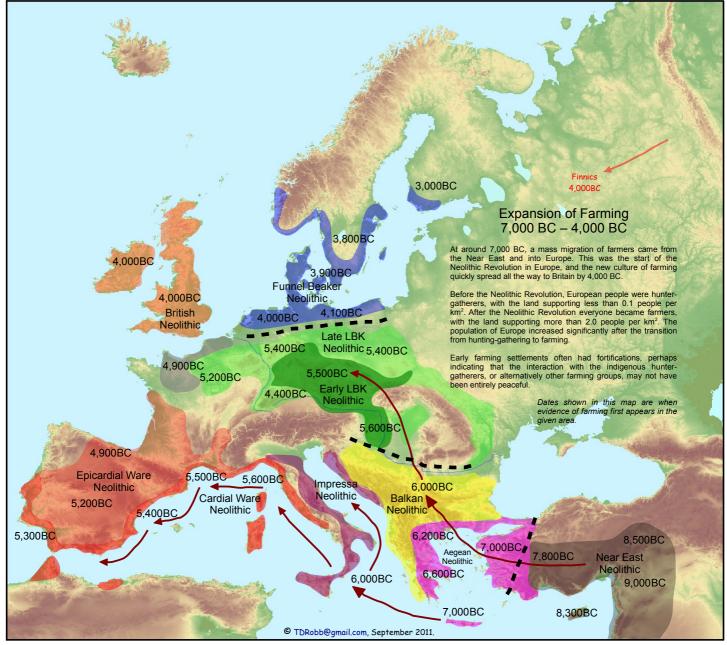
Reference: "The Archaeogenetics of Europe", by Soares et al., Current Biology, February 2010; "Genetics and the Population History of Europe", by Barbujani et al., PNAS, January 2001

## Last Glacial Population History of Western Europe

23,000 BC - 17,500 BC:	Refugium;	(Low population)
17,500 BC – 14,000 BC:	Initial demic expansion;	(Low population)
14,000 BC – 12,000 BC:	Main demic expansion into Northern Europe;	(Founder effect and expansion)
12,000 BC - 10,900 BC:	Population stasis in Northern Europe;	(Founder effect and expansion)
10,900 BC - 9,500 BC:	Population contraction in Northern Europe, but increase in Southern Europe;	(Younger Dryas)
9,500 BC - 3,000 BC:	Renewed population growth in Northern Europe but not Central Europe;	
5 500 50 5 000 50		
5,500 BC - 5,000 BC:	Rapid population rise at start of Linear Pottery Culture (LBK) Neolithic in Germa	any;
5,000 BC - 3,500 BC:	Population decline in Germany;	
3,500 BC - 2,500 BC:	Rapid population rise to new plateau in Germany;	
4,000 BC - 3,000 BC:	Rapid population rise at start of Funnel Beaker Culture (TRB) Neolithic in Denm	nark;

Reference: "The Late Glacial Ancestry of Europeans", by Gamble et al., Documenta Praehistorica, 2006

Azilian Culture	(9,500 BC – 7,500 BC) followed the Magdalenian Culture	in South-west France, and Spain.
Maglemosian Culture ⊺ardenoisian Culture Sauveterrain Culture	(7,500 BC – 5,500 BC) followed the Azilian Culture (7,500 BC – 5,500 BC) followed the Azilian Culture (8,000 BC – 7,000 BC) followed the Azilian Culture	in Germany, Scandinavia, and East Britain. in Northern France. in Southern France and Switzerland.
Kongemosian Culture Linear Pottery Culture	(5,500 BC – 4,600 BC) followed the Maglemosian Culture (5,500 BC – 4,500 BC) followed the Maglemosian Culture	in Southern Scandinavia. in Central & Southeast Europe. Linear Pottery Culture == LBK.
Ertebølle Culture	(4,600 BC – 3,200 BC) followed the Kongemosian Culture	in Northern Germany and Southern Scandinavia.
Funnel Beaker Culture	(3,200 BC - 2,800 BC) followed the Ertebølle Culture	in North Central Europe. Funnel Beaker Culture == TRB.
Corded Ware Culture Battle Axe Culture Single Grave Culture	(2,800 BC – 2,400 BC) followed the Funnel Beaker Culture (2,800 BC – 2,400 BC) followed the Funnel Beaker Culture (2,800 BC – 2,400 BC) followed the Funnel Beaker Culture	in most of Europe. in Norway and Sweden. in Denmark, Northern Germany, the Netherlands and Belgium.



Reference: "The Spread of Agriculture from Central Europe to the Atlantic", by Peter Rowley-Conwy, Current Anthropology, October 2011

For other maps, see http://www.goggo.com/terry/HaplogroupI1/

Azilian Culture	(9,500 BC – 7,500 BC) followed the Magdalenian Culture
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Funnel Beaker Culture	(3,200 BC – 2,800 BC) followed the Ertebølle Culture
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in South-west France, and Spain.

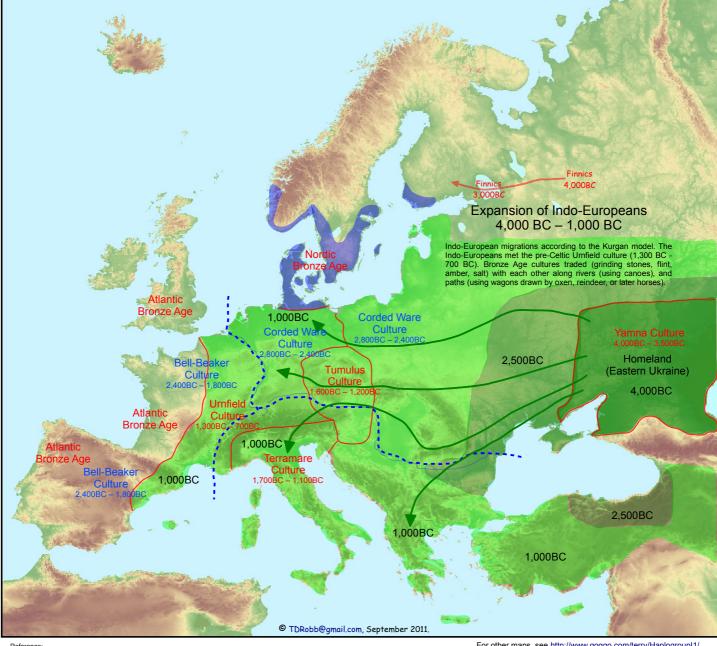
in Germany, Scandinavia, and East Britain. in Northern France. in Southern France and Switzerland.

in Southern Scandinavia. in Central & Southeast Europe. Linear Pottery Culture == LBK.

in Northern Germany and Southern Scandinavia.

in North Central Europe. Funnel Beaker Culture == TRB.

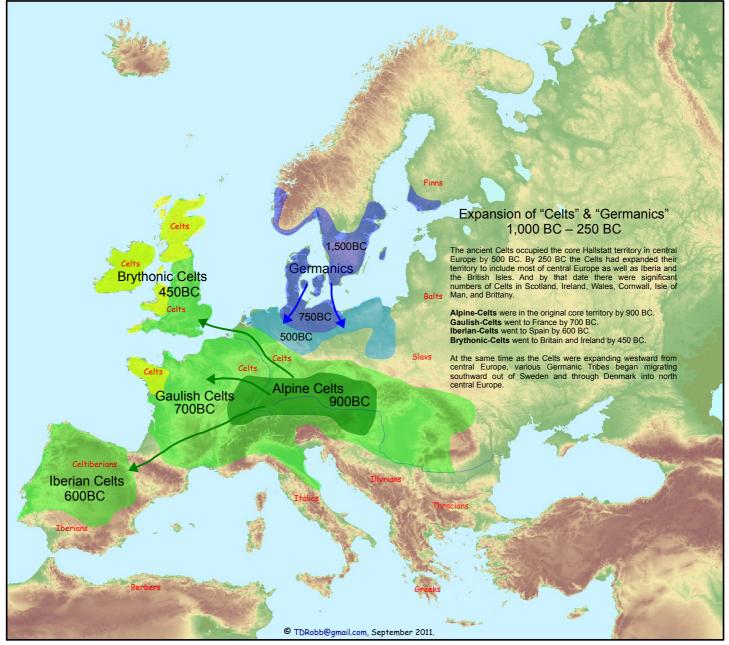
in most of Europe. in Norway and Sweden in Denmark, Northern Germany, the Netherlands and Belgium.



Reference

For other maps, see http://www.goggo.com/terry/HaplogroupI1/

Kongemosian Culture Linear Pottery Culture	(5,500 BC – 4,600 BC) followed the Maglemosian Culture (5,500 BC – 4,500 BC) followed the Maglemosian Culture	in Southern Scandinavia. in Central & Southeast Europe. Linear Pottery Culture == LBK.
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Funnel Beaker Culture	(3,200 BC – 2,800 BC) followed the Ertebølle Culture	in North Central Europe. Funnel Beaker Culture == TRB.
Corded Ware Culture Battle Axe Culture Single Grave Culture	(2,800 BC – 2,400 BC) followed the Funnel Beaker Culture (2,800 BC – 2,400 BC) followed the Funnel Beaker Culture (2,800 BC – 2,400 BC) followed the Funnel Beaker Culture	in most of Europe. in Norway and Sweden. in Denmark, Northern Germany, the Netherlands and Belgium.
Nordic Bronze Age Culture Pre-Roman Iron Age Culture		in Southern Scandinavia. in Scandinavia, Northern Germany, and the Netherlands north of the Rhine River.
Bell-Beaker Culture Unetice Culture Tumulus Culture Urnfield Culture Hallstatt Culture La Tène Culture	(2,400 BC - 1,800 BC) (2,300 BC - 1,600 BC) followed the Bell-Beaker Culture (1,600 BC - 1,200 BC) followed the Unetice Culture (1,300 BC - 750 BC) followed the Tumulus Culture (800 BC - 600 BC) followed the Umfield Culture (450 BC - 100 BC) followed the Hallstatt Culture	in Western Europe. in Southern and Central Germany, Czech Republic, and Western Poland. in Central Europe during the Middle Bronze Age. in Central Europe during the Late Bronze Age. in Central Europe during the Early Iron Age. in Eastern France, Switzerland, South-west Germany, Austria, Czech Republic, Poland, Slovakia, Slovenia, Hungary and Romania.



Reference: "Atlas of the Celtic World", by John Haywood, 2001

For other maps, see http://www.goggo.com/terry/HaplogroupI1/

Nordic Bronze Age Culture	(1,8
Pre-Roman Iron Age Culture	( 5

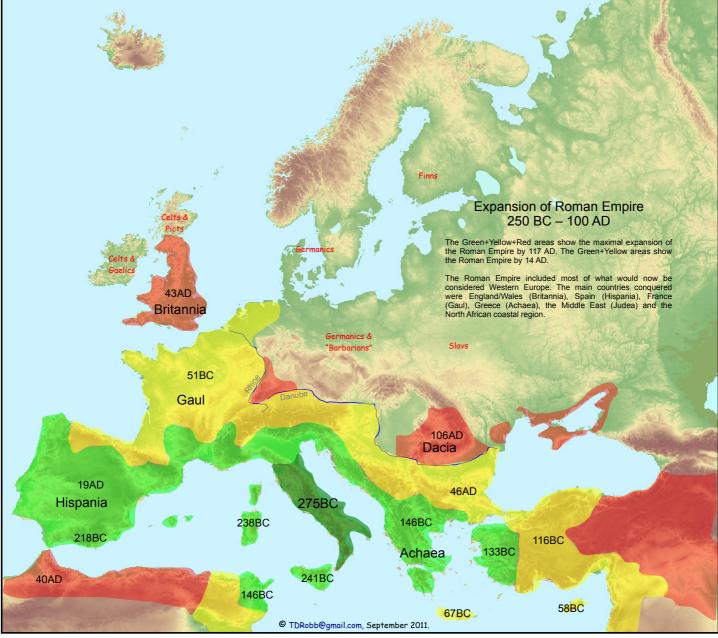
800 BC - 500 BC) 500 BC - 100 BC) followed the Nordic Bronze Age Culture

Bell-Beaker Culture	(2,400 BC – 1,800 BC)
Unetice Culture	(2,300 BC – 1,600 BC) followed the Bell-Beaker Culture
Tumulus Culture	(1,600 BC – 1,200 BC) followed the Unetice Culture
Urnfield Culture	(1,300 BC – 750 BC) followed the Tumulus Culture
Hallstatt Culture	( 800 BC – 600 BC) followed the Urnfield Culture
La Tène Culture	( 450 BC – 100 BC) followed the Hallstatt Culture

in Southern Scandinavia.

in Scandinavia, Northern Germany, and the Netherlands north of the Rhine River.

in Western Europe. in Southern and Central Germany, Czech Republic, and Western Poland. in Central Europe during the Middle Bronze Age. in Central Europe during the Late Bronze Age. in Central Europe during the Early Iron Age. in Eastern France, Switzerland, South-west Germany, Austria, Czech Republic, Poland, Slovakia, Slovenia, Hungary and Romania.



Reference:

For other maps, see http://www.goggo.com/terry/Haplogroupl1/



Reference: "The Penguin Atlas of World History: Volume 1", by Kinder et al., revised edition 2004

## Population Estimate

Tribe	500AD
Ostrogoths in Italy	~100,000 people
Visigoths in Spain	~100,000 people
Burgundians in South-east France	~ 20,000 people
Vandals crossing the Strait of Gibraltar	
Germanic settlers in Gaul	~ 4 percent of the total population

Reference: "An Historical Geography of Europe" by N J G Pounds, 1990

	Population		
Region	500AD,	1000AD,	1500AD
Britain & Ireland	1 million,	2 million,	5 million
France & Lowlands	5 million,	6 million,	18 million
Spain & Portugal	4 million,	7 million,	9 million
Germany & Scandinavia	3 million,	4 million,	14 million
Poland & Lithuania	2 million,	2 million,	4 million
Italy	4 million,	5 million,	11 million
Balkans & Hungary	5 million,	6 million,	13 million
Russia	3 million,	6 million,	10 million

Reference: "The Fontana Economic History of Europe, Vol. I: The Middle Ages - Population in Europe", by J C Russell, 1972

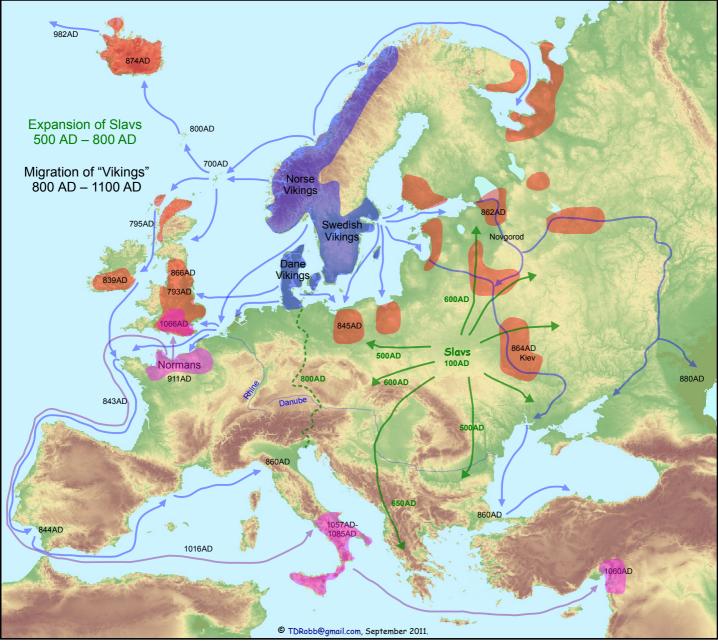
For other maps, see http://www.goggo.com/terry/HaplogroupI1/

Population	Tronde	in	Furono

opulation nonao n	
150 AD - 400 AD:	Population Decline.
400 AD - 1000 AD:	Stable at a Low Level.
1000 AD - 1250 AD:	Population Boom.
1250 AD - 1350 AD:	Stable at a High Level (except after Great Famine).
1350 AD – 1420 AD:	Steep Decline (due to Black Death – 1 in 3 died).
1420 AD – 1470 AD:	Stable at a Low Level.
1470 AD – onward:	Slow Expansion (gaining momentum in early 16 <sup>th</sup> Century).

# Population Estimates for Europe

opulation	Lotiniated for Earo
10,000 BC:	200,000 people.
7,000 BC:	400,000 people.
4,000 BC:	2 million people.
2,000 BC:	5 million people.
1,000 BC:	10 million people.
200 BC:	27 million people.
200 AD:	36 million people.
500 AD:	27 million people.
1,000 AD:	38 million people.
1,500 AD:	80 million people.
1,800 AD:	180 million people.
2,000 AD:	750 million people.



Reference: "The Penguin Atlas of World History: Volume 1", by Kinder et al., revised edition 2004

For other maps, see http://www.goggo.com/terry/Haplogroupl1/