**Who, Why, When, and Where From? The Peopling of the Canary Islands and the Challenges of Archaeometry**

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Supplementary Material

*Table S1. All ancient mtDNA haplotypes characterized and published to date for the Canary Islands along with background information. Acronyms correspond to the following islands: Gran Canaria (GC), Tenerife (TF), Fuerteventura (FV), Lanzarote (LZ), La Gomera (LG), El Hierro (EH), and La Palma (LP). LZ and FV samples were not distinguished in the source, hence both are written as one group. Different haplotypes were originally published by various sources and are indicated by superscript as follows: 1Maca-Meyer and colleagues (2004), Fregel and colleagues (22009, 32015, 42019), 5Rodríguez-Varela and colleagues (2017), 6Ordóñez and colleagues (2017), and 7Serrano and colleagues (2023).*

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| **Island** | **mtDNA Marker: *n*** | **Origin** | **Migration Events** | **Modern Distribution** | **Age (ca. bp)** |
| GC | 4H1: *1* | Southwest Europe | post LGM expansions | Western Europe - Basques. Libya – Tuareg. | 22600 |
| 4H1cf: *1* | Central North Africa | post LGM expansions | Central North Africa & Canary Islands | 3400 |
| 7H1e1a: *1* | Central North Africa | post LGM expansions | Central North Africa & Canary Islands | 3400 |
| 7H1e1a9: *1* | Central North Africa | European Neolithic migration to Africa | Central North Africa & Canary Islands | 3400 |
| 5H2a: *1* | Southern Europe | post LGM expansions | Central North Africa & Canary Islands | 10000 |
| 4, 7H4a1e: *6* | Central North Africa | European Neolithic migration to Africa | Central North Africa & Canary Islands | 3400 |
| 1, 4HV0: *1* | Near East | post LGM expansions | North and Central Europe - Spain & Sardinia | 17000 |
| 4J: *2* | Near East Neolithic | Neolithization - Near Eastern farmers into Mesolithic Europe. Or earlier? | Europe & Near East | 42000 |
| 4K: *2* | Near East | Neolithization - Near Eastern farmers into Mesolithic Europe | Europe & Near East | 36000 |
| 4L1/L2: *1* | West & Central Africa | Bantu expansion, trans-Saharan slave trade | Africa, North America, Europe | 10000 |
| 7L1b1a+189: *1* | Northwest Africa | (L1b1a) Romanization, Arab conquest, trans-Atlantic slave trade, and sporadic | North Africa, Mediterranean | 14000 |
| 4L3: *1* | sub-Sahara | Modern *Homo sapiens* out-of-Africa | sub-Saharan Africa | 60-50000 |
| 4, 5, 7L3b1a12: *7* | Canary Islands | North Africa | Canary Islands | 1800 |
| 4M1: *1* | Southwest Asia | Back-to-Africa Upper Palaeolithic | East Africa & some in North Africa | 24000 |
| 7T2b: *1* | Near East, Europe | European Neolithic migration to Africa | Europe | 10000 |
| 4T2c1: *15* | Near East, Europe | Neolithic migrations | North Africa, Europe | 2000 |
| 7T2c1d3: *5* | Central North Africa | Neolithic migrations | Tunisia, Canary Islands | 2000 |
| 4U5: *3* | Europe | Common ancestor in Near East spread through coastal Mediterranean | Europe, northern Scandinavia (Saami), Northwest Africa | 29600 |
| 4U6a: *6* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North & East Africa, Southwest Europe | 24000 |
| 7U6a1a1: *2* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North Africa & some East Africa | 13100 |
| 7U6a7a1: *1* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North Africa & some East Africa | 4700 |
| 4, 7U6b1a: *4* | Canary Islands | Capsian culture spread in Maghreb | Northwest Africa | 3600 |
| 4U6c: *5* | Near East | Northwest Africa | North Africa & Southwestern Europe | 10400 |
| 7U6c1: *1* | Mediterranean Europe | Northwest Africa | Mediterranean Maghreb, Iberian Peninsula, Italy | 13-10000 |
| 4, 7X3a: *4* | Near East | Trans-Mediterranean | Near East | 4000 |
| TF | 1, 4, 5, 7H1cf: *10* | Central North Africa | post LGM expansions | Central North Africa & Canary Islands | 3400 |
| 1, 4J: *4* | Near East Neolithic | Neolithization - Near Eastern farmers into Mesolithic Europe. Or earlier? | Europe & Near East | 42000 |
| 5J1c3: *1* | North Europe | Neolithization | North Africa, Europe | 7000 |
| 1, 4K: *1* | Near East | Neolithization - Near Eastern farmers into Mesolithic Europe | Europe & Near East | 36000 |
| 1, 4L3: *2* | sub-Sahara | Modern *Homo sapiens* out-of-Africa | sub-Saharan Africa | 60-50000 |
| 1, 4T2c1: *11* | Near East, Europe | Neolithic migrations | North Africa, Europe | 2000 |
| 5, 7T2c1d3: *5* | Central North Africa | Neolithic migrations | Tunisia, Canary Islands | 2000 |
| 1, 4U6a: *2* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North & East Africa, Southwest Europe | 24000 |
| 7U6a1a1: *1* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North Africa & some East Africa | 13100 |
| 1, 4, 5U6b1a: *8* | Canary Islands | Capsian culture spread in Maghreb | Northwest Africa | 3600 |
| EH | 4, 6, 7H1cf: *62* | Central North Africa | post LGM expansions | Central North Africa & Canary Islands | 3400 |
| 4U7: *1* | Near East, South Asia | post LGM expansions | Near East, the Caucasus, Central Asia, and India | 18-15000 |
| LP | 2, 4, 7H1cf: *9* | Central North Africa | post LGM expansions | Central North Africa & Canary Islands | 3400 |
| 2, 4J: *3* | Near East Neolithic | Neolithization - Near Eastern farmers into Mesolithic Europe. Or earlier? | Europe & Near East | 42000 |
| 7J2a2d1a: *1* | Central North Africa | (J2a2) Neolithic migrations from Arabian Peninsula | Central North Africa & Canary Islands | 1500 |
| 2, 4K: *1* | Near East | Neolithization - Near Eastern farmers into Mesolithic Europe | Europe & Near East | 36000 |
| 2, 4L1/L2: *1* | West & Central Africa | Bantu expansion, trans-Saharan slave trade | Africa, North America, Europe | 10000 |
| 2, 4T2c1: *3* | Near East, Europe | Neolithic migrations | North Africa, Europe | 2000 |
| 2, 4U6b1a: *2* | Canary Islands | Capsian culture spread in Maghreb | Northwest Africa | 3600 |
| 4W1e1: *1* | Neolithic Near East, Europe | Late Glacial expansion | Europe, Near East, Northwest India | 13000 |
| 2, 4, 7X3a: *2* | Near East | Trans-Mediterranean | Near East | 4000 |
| LG | 3, 4H1cf: *2* | Central North Africa | post LGM expansions | Central North Africa & Canary Islands | 3400 |
| 3, 4J: *5* | Near East Neolithic | Neolithization - Near Eastern farmers into Mesolithic Europe. Or earlier? | Europe & Near East | 42000 |
| 7J2a2d1a: *1* | Central North Africa | (J2a2) Neolithic migrations from Arabian Peninsula | Central North Africa & Canary Islands | 1500 |
| 3, 4K: *1* | Near East | Neolithization - Near Eastern farmers into Mesolithic Europe | Europe & Near East | 36000 |
| 3, 4L1/L2: *1* | West & Central Africa | Bantu expansion, trans-Saharan slave trade | Africa, North America, Europe | 10000 |
| 3, 4L3: *4* | sub-Sahara | Modern *Homo sapiens* out-of-Africa | sub-Saharan Africa | 60-50000 |
| 3, 4, 7U6b1a: *38* | Canary Islands | Capsian culture spread in Maghreb | Northwest Africa | 3600 |
| 3, 4X3a: *4* | Near East | Trans-Mediterranean | Near East | 4000 |
| FV | 7H1e1a9: *2* | Central North Africa | European Neolithic migration to Africa | Central North Africa & Canary Islands | 3400 |
| 4T2c1: *1* | Near East, Europe | Neolithic migrations | North Africa, Europe | 2000 |
| LZ | 7H4a1e: *1* | Central North Africa | European Neolithic migration to Africa | Central North Africa & Canary Islands | 3400 |
| 4T2c1: *1* | Near East, Europe | Neolithic migrations | North Africa, Europe | 2000 |
| 7U6a1a1: *1* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North Africa & some East Africa | 13100 |
| LZ/FV | 4U5: *1* | Europe | Common ancestor in Near East spread through coastal Mediterranean | Europe, northern Scandinavia (Saami), Northwest Africa | 29600 |
| 4U6a: *2* | Near East | Back-to-Africa upper Palaeolithic. Natufian-related | North & East Africa, Southwest Europe | 24000 |
| 4U6c: *1* | Near East | Northwest Africa | North Africa & Southwestern Europe | 10400 |

***Table S2****. All ancient yDNA haplotypes characterized and published to date for the Canary Islands along with background information. Haplotypes are indicated by superscript as follows: 1Rodríguez-Varela and colleagues (2017), 2Alberto-Barroso and colleagues (2021), and 3Serrano and colleagues (2023).*

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| **Island** | **yDNA Marker: *n*** | **Haplogroup** | **Origin** | **Migration Events** | **Modern Distribution** | **Age (ca. bp)** |
| GC | 3E-M183: *4* | E1b1b1b1; subclade M81 | Northwest Africa | Carthaginian & Roman migrations. Islamization | Northwest Africa Berber-speaking populations, Iberia | 3000-2000 |
| 3R-M269: *1* | R1b | 2 hypotheses:A) Near East into Europe B) Multiple geographic centres in Europe leading to subgroups | A) NeolithizationB) Complex history of population movement & sub-lineage growth in Europe | Western Europe, Basques | (R1b) 5500-4800B) R-M269 younger |
| 2, 3T-M184: *3* | T1a | Middle East | Neolithization, trans-Mediterranean, Phoenician | East Africa, Tunisia, Middle East | 26000 |
| 3T-M70: *3* | T1a | Middle East, North African | trans-Mediterranean, Neolithization, Jewish dispersal | South Europe - Portugal, Sicily, Corsica. North Africa - Egypt, Libya, Arab Tunisians | 21000 |
| 3E-M33 (E1a) or E-M132: *1* | E1-P147 | Sahel region of Central Africa | Pre-agricultural Nilo-Saharan speaking migrations | East African language groups: Nilo-Sahara, Niger-Congo, Afro-Asiatic | 48000 |
| TF | 1, 3E-M183: *8* | E1b1b1b1; subclade M81 | Northwest Africa | Carthaginian & Roman migrations. Islamization | Northwest Africa Berber-speaking populations, Iberia | 3000-2000 |
| 3E-M78: *1* | E1b1b1a | Neolithization, trans-Mediterranean | Europe, Near East, North Africa | Europe, Near East, North Africa | 20-17000 |
| LG | 2E-M183: *2* | E1b1b1b1; subclade M81 | Northwest Africa | Carthaginian & Roman migrations. Islamization | Northwest Africa Berber-speaking populations, Iberia | 3000-2000 |
| EH | 3E-M183: *1* | E1b1b1b1; subclade M81 | Northwest Africa | Carthaginian & Roman migrations. Islamization | Northwest Africa Berber-speaking populations, Iberia | 3000-2000 |
| 3R-M269: *1* | R1b | 2 hypotheses:A) Near East into Europe B) Multiple geographic centres in Europe leading to subgroups | A) NeolithizationB) Complex history of population movement & sub-lineage growth in Europe | Western Europe, Basques | (R1b) 5500-4800B) R-M269 younger |
| LP | 3E-M183: *1* | E1b1b1b1; subclade M81 | Northwest Africa | Carthaginian & Roman migrations. Islamization | Northwest Africa Berber-speaking populations, Iberia | 3000-2000 |
| LZ | 3E-M33 (E1a) or E-M132: *2* | E1-P147 | Sahel region of Central Africa | Pre-agricultural Nilo-Saharan speaking migrations | East African language groups: Nilo-Sahara, Niger-Congo, Afro-Asiatic | 48000 |

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