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Research Report

The Saharo-Canarian Circle:

The forgotten Prehistory of Euro African Atlantic façade and its lack of eastern demic diffusion evidences

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Abstract - Canarians, North Africans and Iberians show a close genetic relatedness. Greeks have a Sub-Saharan gene input according to HLA and other autosomic markers. Also, there is a genetic kinship between both Atlantic Euro Africans and North African/Arabic people. This is concordant with a drying humid Sahara Desert, which may have occurred about 6,000 years BC, and the subsequent northwards emigration of Saharan people may have also happened in Pharaonic times. This genetic input into Atlantic and Mediterranean Europe/Africa is also supported with Lineal Megalithic Scripts in Canary Islands (as well as in Iberia) together with simple Iberian semi-syllabary rock inscriptions both at Canary Islands and Ti-m Missaou (Algeria, Central southern Sahara). Lineal African/European scripts are found in certain languages scripts like Berber/Tuareg, Iberian, Runes, Etruscan, Bulgarian (Sitovo and Gradeshnitza, 6,000 years BP), Italian Old Scripts (Lepontic, Venetic, Raetic), Minoan Lineal A and Vinca scripts (Romania, Serbia, Greece, Bulgaria, about 4,000 years BP). The possibility that Megalithic Lineal Scripts have given rise to these languages lineal writing is feasible because admixture of languages rock scripts and Megalithic Lineal Scripts have been found. Thus, resistance of Canarian aborigines (Guanches) to Carthage, Rome and Arabs left a bulk of Canarian-Saharan information which is used to study both Saharan and Canarian Prehistory, and also Atlantic and Mediterranean beginning of European and other civilizations: this preserved prehistoric inheritance may be named the "Saharo-Canarian Circle" of prehistoric knowledge. Also, linguistics-epigraphy, physical anthropology, archaeology, and domesticated cattle shows a close North Africa-Iberia Mesolithic/Neolithic relationship and demonstrates that the *demic diffusion model does not exist in Iberia*. Also, Tassili Sahara paintings of domesticated cattle appear 1,000 years before those agricultural practices started at Middle East. Finally, it is also inferred that circum-Mediterranean contacts during thousand years between ice and desert constructed Mediterranean cultures from Canary Islands to Ancient Great Persia and this is the origin of Classical Mediterranean cultures that was later exclusively attributed to Rome and Greece.

***Keywords*:** Sahara, Usko-Mediterranean, Basque, Berber, Celts, Iberian, Etruscan, Canary Islands, Megalithic, Greeks, Romans, Africa, Europe, Canary Islands, Lineal Scripts, demic diffusion, Saharo-Canarian Circle, Guanches, Ahaggar, pyramid, Cart-Ruts

The Saharo-Canarian Circle: a source of Prehistory information

Sahara (and North Africa)

It has become dry after 10,000 years BC; it was green and full of rivers, lakes and people. It is proposed that people emigrated to Mediterranean and Atlantic areas and other places when desert established. Mediterranean and Eurafrican Atlantic cultures have been influenced by this displaced people culture. Tassili, Air, Tenere (Hachid 2000), Western Sahara and other nowadays places in Sahara Desert show: Megalithic Culture artifacts, rock paintings of domesticated animals one thousand years before Middle East agriculture started, horse chariot rock paintings which are useless in sand and dunes and a very old lineal scripts/alphabet which may be precursor of other Eurafrican/Mediterranean ancient lineal scripts. In fact, old Iberian rock scripts have been found in Algerian Sahara (Tim-Misaou, Ahaggar Mts Area, 200 km southwest from Tamanrasset; Arnaiz-Villena *et al.* 2021a). In addition, pyramids (constructed 2,000 years later) are also found in different shapes. North African Maghreb countries no doubt were part of Sahara culture. However, Roman, Muslim and other cultures have blurred and distorted their prehistory. Egypt relationship with Sahara Berbers exists but it is much debated (Brett & Fentress 1997).

Canary Islands

Part of Saharan climate displaced people are proposed to have reached Canary Islands where common rock Ibero-Guanche and older lineal scripts are found (Arnaiz-Villena *et al.* 2019a; 2020a; 2020b) Volcanic rock environment had to be taken by people for any socio-cultural archaeologic manifestation. However, megalithic constructions (Zonzamas rock carved calendar and Cart-ruts in Lanzarote) are found. Also, pyramids have been reported in all Islands. Thus, navigation among Islands existed (Arnaiz-Villena *et al.* 2019a; 2020a; 2020b; Mederos-Martín & Escribano-Cobo 2005). Other rock calendars have been described in Canary Islands and multiple prehistoric artifacts have been found, like “fat” goddesses similar to those found by Gimbutas in Europe

older than 3,500 years BC: at La Fortaleza (Gran Canaria), Tara (Telde, Gran Canaria) (Arco-Aguilar & Navarro-Mederos 1996; Arnaiz-Villena *et al.* 2020a).The fact that ancient Canarians or Guanches have resisted Phoenician, Roman, Arab and other invasions led to French-Spanish conquerors to find some of this Guanche ancient art/folk manifestations without much alteration including rock paintings and rock scripts of both Iberian and Lybic characters and also more ancient Megalithic Lineal Scripts(Vazquez-Hoys 2008; Muñoz-Gambero 2019). Toponyms and people names were also belonging to the Usko-Mediterranean family of languages, and some of them may be translated by using nowadays extant Ancient Basque language. Le Canarien written by Jean de Béthencourtsays that Guanches understood Bishop Alberto de las Casas at Fuerteventura: "*They gave him a very warm welcome and even more so because he understood the language of the country (Canary Islands)*" (Serra & Cioranescu 1960). This was also later in 1978 remembered by Federico Krutwig (Krutwig 1978). Spanish conquerors and others killed many Guanches or sold them as slaves at Sevilla and Valencia markets (Spain), many of this "merchandise" lists have been preserved which may be translated into Basque, like many Canarian toponyms (Arnaiz-Villena & Alonso-García 2001).

The worldwide widespread Mediterranean culture

It was not only constructed by Rome and Greece. "Mediterranean" people (broad cultural sense) comprised a World stretch from Atlantic British and Canary Islands, Western Europe, and Africa to North India, including Caucasus, Great Ancient Persia and Egypt. A very important cultural input was most probably given by displaced Saharans to starting or influencing all Mediterranean Area civilizations. Thus, the "Classical Mediterranean Culture" was originated by Saharans, Atlantic Western Europeans and Africans, Central and East Mediterraneans. It cannot be attributed only to Greece and Rome in the view of past and present scientific advances. In the case of Greece, it was unexpectedly found genetic relatedness with Sub-Saharans (Arnaiz-Villena *et al.* 2021a; 2021b; Hajjej *et al*. 2006; Dörk *et al.* 1998; Padoa *et al.* 1999) which is not that odd taking into account cultural, genetic, physical anthropology and genetic relationship of Sub-Saharans/North Africans with Iberia and other Europeans. This is with respect to a time when densely populated Mediterranean Area was confined between northern Ice and Sahara Desert.

On the lack of western Mediterranean and Atlantic Euro African Prehistory: Middle East demic diffusion does not exist in Iberia

Skeletal studies from Mesolithic and Neolithic Iberian samples have been extensively carried out by Meiklejohn *et al.* (1984), Lubell *et al.* (1994), Lalueza-Fox (1996), and Jackes *et al.* (1997a). Jackes *et al.* (1997a) analyzed the agricultural transition by using dental and skeletal variables obtained from partial data. They performed an exhaustive analysis of their own and other data on Mesolithic and Neolithic Iberian skeletal parameters. A scatter plot of craniometric variables from skeletons from Iberia (Spain: Majorca, Tarragona, Basque Country, Catalonia, Cantabria, Barcelona, Burgos, Castilla, Andalusia, Granada; Portugal: Eira, Pedrinha, Escoural, Melides, Cabezo da Aruda, Moita de Sehastiago) showed that there was no significant change in the studied variables between Neolithic and Mesolithic samples. Both, Lalueza-Fox (1996) and Jackes *et al.* (1997a, 1997b) agreed that stature is similar in Neolithic and Mesolithic Iberian skeletons. Dental caries rates do not show a discontinuity either, and the observed reduction rate in the Neolithic shows complex dietary changes that started during the Mesolithic and continued into the Neolithic (Lubell *et al.* 1994). Thus, the demic diffusion model put forward by Cavalli-Sforza *et al.* 1994, which implies an important (or complete) replacement of the population, is not sustainable for Iberia, where no revolutionary way of life changes or physical anthropometry and diet differences were found.

Prehistory of western Mediterranean and African-European Atlantic façade has often been neglected (Encyclopedia Brittanica 2021). In fact, Rome and Greece seem to have been the only actors in Mediterranean History and Anthropology with blurred links with Egypt, not firmly considered by all authors (Encyclopedia Brittanica 2021; Cunliffe 2017). However, some points remain unexplained with this simplistic assumption. Megalithic Euro-African monuments are dated at least 2,000 years before classical Giza (El Cairo, Egypt) pyramids are dated, particularly those of Southern Iberia (i. e.: 7,000 years BP) (Arnaiz-Villena *et al.* 2013); it does not mean that older dating may be found elsewhere. Megalithic construction technology is much debated, but a strong society ties and structure must have existed (Trump 2002). These types of constructions have been found around Mediterranean Sea and northern Africa, including

nowadays Sahara Desert (Arnaiz-Villena *et al.* 2019a; 2020a; 2020b). Obviously, these buildings found in Desert were most probably constructed in a greener Epoch, when Sahara was humid before 6,000 years BC (Arnaiz-Villena *et al.* 1999; 2020a; 2020b; 2021a). In addition, Cart-Ruts there exist: they are rock-carved channels and crests that cannot be made by cart wheels because of frequent non-parallel and unusual unexpected bends which are impossible to carts for circulating. These are particularly abundant in Malta (Trump 2002) and ascribed to Bronze Age and Megalithic times, but are found all around Mediterranean area, including Azores Islands and Lanzarote Island (Canary Islands) at Atlantic Ocean (Arnaiz-Villena *et al.* 2017; 2018; Bonnici 2007). A European Union grant spent a substantial fund to study Cart-Ruts and only descriptive results were obtained (Arnaiz-Villena *et al.* 2018; Bonnici 2007); our proposal is that they may be useful for measuring time and space in relationship with Sun and other stars, and dating is from Megalithic Malta times (Arnaiz-Villena *et al.* 2019b), but not all Cart-Ruts may belong to the same Epoch (Arnaiz-Villena *et al.* 2019b). These structures are overlooked by most archaeologists.

Genetics (see below), Physical Anthropology, and other cultural traits did not support that people or culture coming from Middle East replaced autochthonous western Mediterranean culture. First, Iberian Mesolithic/Neolithic transition skeletons do not support the postulated Middle East western demic replacement (Meiklejohn *et al.* 1984; Lubell *et al.* 1994; Jackes *et al.* 1997a; Cavalli-Sforza 1996). In addition, Cardial pottery with similar decoration was present at early Neolithic both in Western Mediterranean Europe and in the Maghreb (North Africa). Moreover, predominant El-Badari culture from Egypt (4,500 years BP) is very similar to that of southern Iberia Neolithic uses on pottery and animal domestication (Escacena-Carrasco 1996).

On the other hand, language was found to be similar in ancient Mediterranean: Basque language is similar to Iberian, Etruscan, Minoan Lineal A, Guanche, Berber, Eblaic and Hittite among others: these are the so called Usko-Mediterranean languages (**Fig. 1A**) (Arnaiz-Villena *et al.* 1999; 2000; 2001; 2002). It was also found that all Canary Islands contained rock scripts belonging to Iberian semi-syllabary that are funerary and religious inscriptions (**Fig. 1B**) (Arnaiz-Villena *et al.* 2020b; Arnaiz-Villena & Alonso-García 2001) which were also present in Sahara Desert (**Fig. 1C**) (Arnaiz-Villena *et al.* 2021a). It is also important to note that Megalithic/Neolithic constructions like pyramids, Cart-Ruts, and "Quesera" of Zonzamas as a lunisolar megalithic calendar found at Canary Islands (Arnaiz-Villena *et al.* 2018) drove us to

defining the Saharo-Canarian Circle of Prehistoric Culture (Arnaiz-Villena *et al.* 2021a; 2021b) (see above). In the same context, it is proposed that most Mediterranean/European lineal scripts come from this Saharo-Canarian Circle: Runes, Minoan Lineal A, Venetic, Lepontic or Raetic, together with Bulgarian Sitovo and Gradeshnitza writings (the last 2 ones are older than 3,000 years BC). Iberian semi-syllabary writing appearance in Iberia and southern France is conventionally attributed to the 1st millennium BC (Arnaiz-Villena *et al.* 2021b; Gómez- Moreno 1949; 1962; however, Strabo said that Iberians had writing for more than 6,000 years BC (Strabo, 1998). These subjective Iberian scripts dating may have been established just in order to place it after Phoenicians arrival to the West.

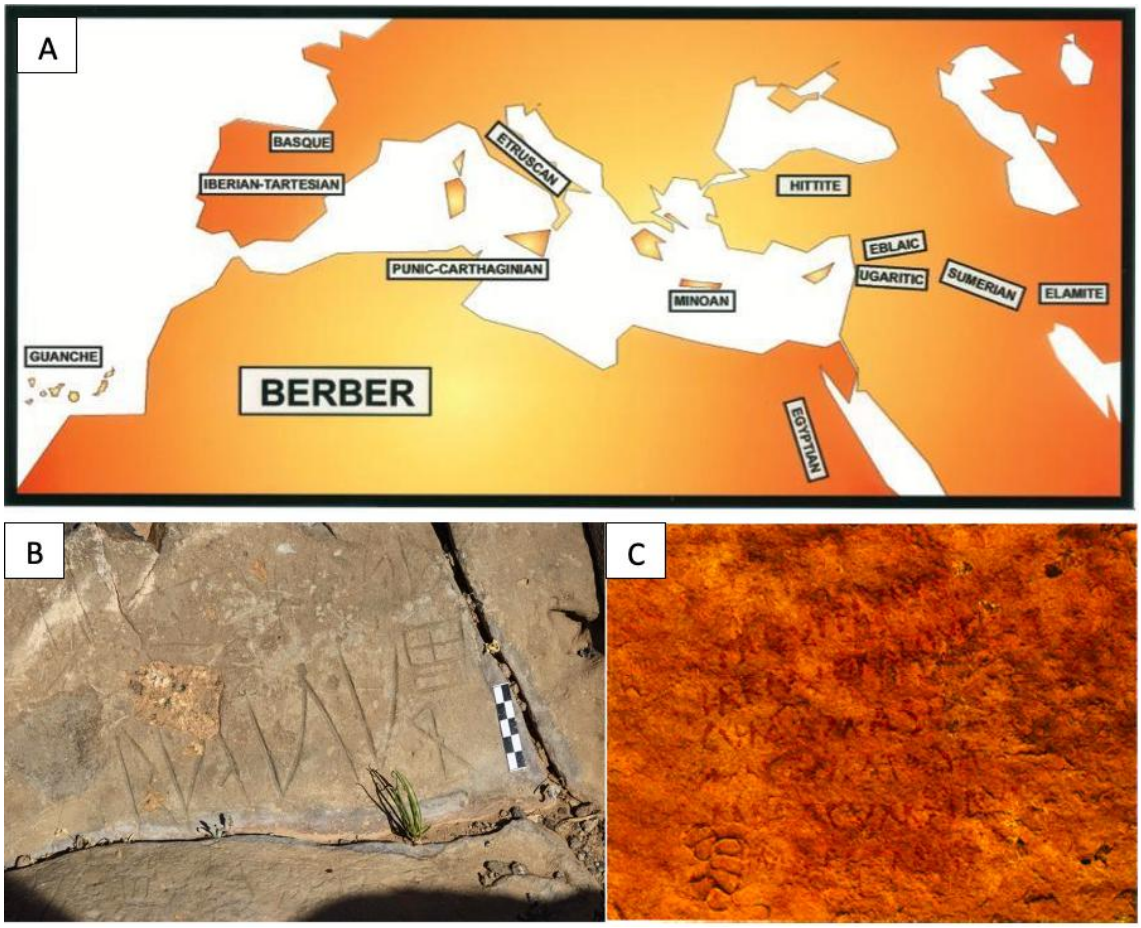

Fig. 1.
A) Usko-Mediterranean living (Basque and Berber) and dead languages; B) Iberian-Guanche rock scripts found in Mt. Tenezara, Lanzarote, Canary Is, Spain, previously classified as "Latin" or "Lybic" scripts; C) Iberian-Guanche incise and painted characters found in Ti-m Missaou Rock Shelter (Sahara, Algeria). (See Arnaiz-Villena *et al*. 2020a; 2021a; Gómez-Moreno 1949; 1962).

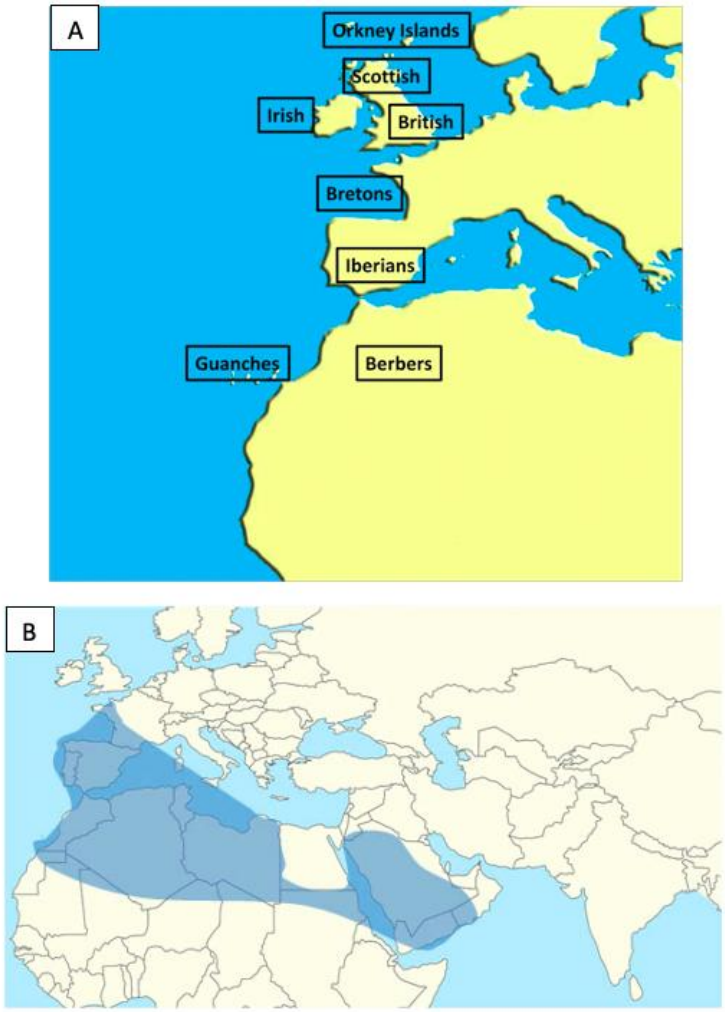

Fig. 2.
A) Map of West Europe and North West Africa with populations who may have been originated from ancient Celt-Iberian Euro African populations; B) North African and South-West European genetic bidirectional relatedness (See Hajjej *et al.* 2018; Arnaiz-Villena *et al.* 2017).

Finally, we wish to state that Genetics cannot be an absolute value to define a population: it must be taken together with other Anthropology and Archaeology data. Also, artifacts when only one crucial population is left out for the genetic analyses appear and confuse any interpretation and different genetic methods give different results that may be interpreted in many different ways. In summary, genetics is not an absolute identity tool for single out populations when using without any other traits.

However, gene flow between Europe and Africa across Gibraltar Strait area has been established since Prehistory firstly by us (**Fig. 2A**) (Arnaiz-Villena *et al.* 1999) and later by Sanchez-Mazas, Barbujani and Bertranpetit groups (Currat *et al.* 2010; Botigue *et al.* 2013; González-Fortes *et al.* 2019). Thus, discussing on Guanche origins (Canary Islands First Inhabitants) only on genetic bases is useless since Iberians and North Africans are difficult to distinguish when focusing only on Genetics (Arnaiz-Villena *et al.* 2019a). It is also important to point out the artificial distinction between Celts that spoke Celtic language in Iberian Peninsula but wrote in Iberian (**Fig. 2**). A confusion of ancient historians about origin of Danube River ("Ister" River) occurred: they wrote that Celts inhabited further up this river fountains which were believed to start at Pyrenees and not at Black Forest in Germany, as they really do: thus, Celts inhabited in Iberia and also where Celtic or Gaelic language is spoken i. e.: British Isles or French Brittain (Oppenheimer 2007; Arnaiz-Villena *et al.* 2017). Also, in the last years an extensive study gathering many published genetic data has been done and genetic relatedness is detected by autosomal well-defined HLA genes in people from Arabic Peninsula to French Brittain, including all in-between southern Mediterraneans and Iberians (**Fig. 2B**) (Hajjej *et al.* 2018).

Moreover, it is proved that the diffusion model of farmers bearing new technologies from Middle East to western Mediterranean does not exist (Cavalli-Sforza 1996). It is also necessary to stress that displacement of a densely populated area that emigrated from a green area because of a deserting Sahara and occurred after 10,000 – 6,000 years BC. This people carried out a culture that was common to many ancient Mediterranean cultures, like it is reflected in related languages and lineal writing systems (Arnaiz-Villena *et al.* 2001): Basque, Guanche, Iberian, Minoan Lineal A, Eblaic, Hittite, old Egyptian, and Caucasian. Also, genetics is common to Atlantic façade Euro- African populations and Northern Africa and Arabic Peninsula (Arnaiz-Villena *et al.* 2017; Hajjej *et al.* 2018). Finally, it is also inferred that circum-Mediterranean contacts during thousand years between ice and desert constructed Mediterranean cultures from Canary Islands to Ancient Great Persia (Arnaiz-Villena *et al.* 1999; 2021b) and this is the origin of Classical Mediterranean cultures that was later exclusively attributed to Rome and Greece (**Fig. 3**).

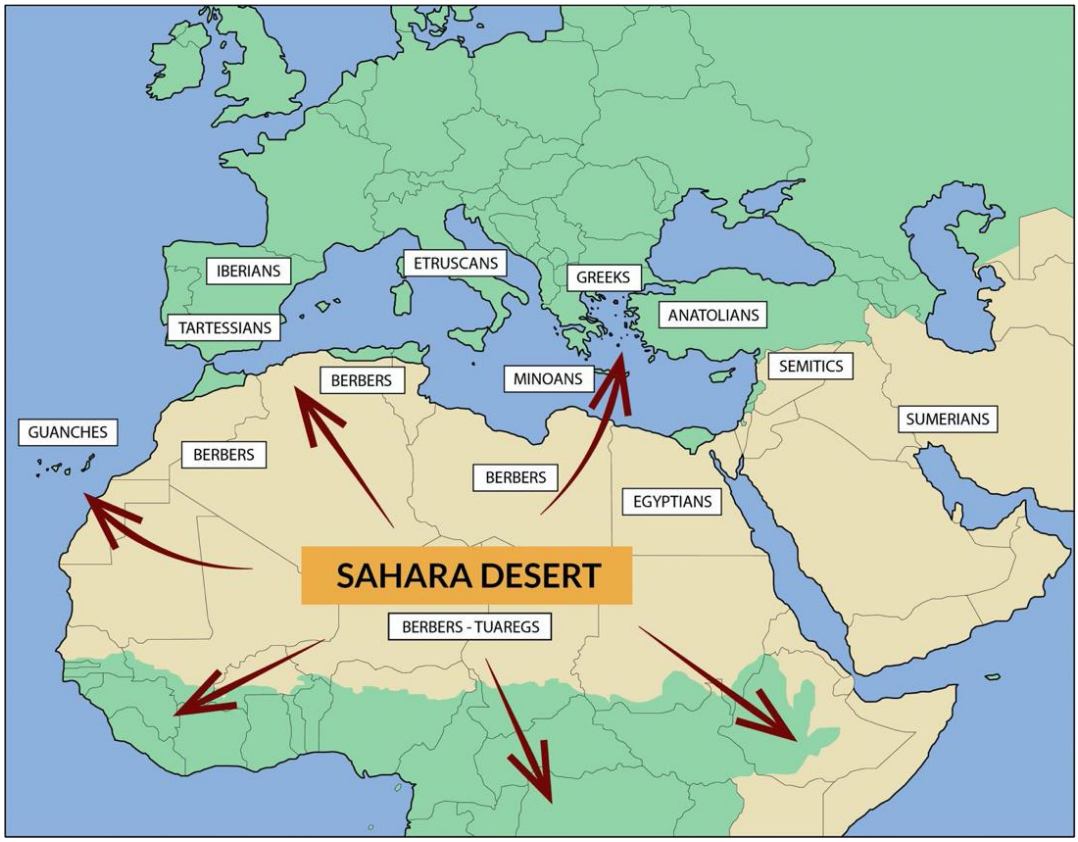

Fig. 3
Mediterranean area showing classic populations (squares). Arrows represent population movements before 3,000 years B. C.

Conclusions

1) A continuous flow of genes, culture and people has occurred between Africa and Iberia in both directions through Gibraltar Strait during Prehistory.

2) Mediterranean culture is constructed by interactions of both Africans and Europeans living together during thousands of years between North European Ice and Sahara Desert by many nowadays different people and countries. However, it has been wrongly attributed exclusively to Rome and Greece.

3) Prehistory of Western Europe , Western Africa Atlantic façade , British, Canary, and other Islands, and Sahara Desert has plainly been ignored.

4) Greek admixture with Africans is also genetically detected and may have occurred either in Sahara desertification times or later (Danao's Daughters in Aeschylus "Danaids" book) (Arnaiz-Villena *et al.* 2021b).

5) Celts may be a part of Iberians or overlapped with Iberians. Some classic authors used 'Celtiberians' to refer to Iberian Peninsula inhabitants probably confused by both of these ethnonyms (Arnaiz-Villena *et al.* 2017).

6) Agricultural/domestic cattle and human diffusion model from Middle East to West Europe and Iberia does not exist. It was most likely a product of strong interaction among Sahara, Iberia, and North Africa in both Mediterranean and Atlantic sides: domestic cattle are shown in Sahara paintings 1,000 years before it occurred in Middle East (Arnaiz-Villena *et al.* 2021a; 2021b).

7) Old Mediterranean languages are not Indoeuropean and are all related, Berber and Basque being the living ones and possibly some Caucasian ones like Armenian and Georgian: the Usko-Mediterranean languages (Arnaiz-Villena *et al.* 1999; 2000; 2001).

8) Origin of lineal writings is possible to have occurred in the Saharo-Canarian Prehistoric Circle of Culture: runes, Iberian semi-syllabary, Etruscan, Old Berber/Tuareg, Old Italian (Lepantic, Raetic, Venetic), Minoan Lineal A, Bulgarian Sitovo and Gradeshnitza (3,000- 4,000 years BC), Serbian Vinca language, and others (Arnaiz-Villena *et al.* 2021a; 2021b).

9) These lineal African/European writings may have been a natural evolution of the Lineal Megalithic Writings found in Iberia, Africa, and Canary Islands either on rocks or on megalithic monuments (Arnaiz-Villena *et al.* 2021a; 2021b).

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