

## Research Article

# Y-CHROMOSOME R1 WAS INTRODUCED TO EURASIA BY KUSHITES

\*Clyde Winters

Uthman dan Fodio Institute

Chicago, Illinois 60643

\*Author for Correspondence: [olmec982000@yahoo.com](mailto:olmec982000@yahoo.com)

## ABSTRACT

The Kushites lived in Africa and Eurasia. Kushites originated in Africa. Researchers have observed that many of the Caucasus hunter-gatherers (CHG) and early European farmers (EF) populations carried R1a and R1b clades, and cultivated millet, which was not cultivated in Central Asia and the Middle East until 1000s of years after it was cultivated at Nabta Playa in Africa, and in the Ukraine by CHG and EF populations. Interestingly, the CHG carried the R1b1, and R1b1a lineages. Some researchers claim that these clades are “distant relatives” of V88, and that V88 is the result of a back migration from Eurasia to Central Africa. The archaeological evidence, on the other hand, lacks any corroboration of a back migration from Eurasia. Instead, the archaeogenetic evidence indicates that Niger-Congo speaking Africans from North Africa and the Saharo-Sahel, called Kushites in the historical literature early settled Crete, Iberia and Anatolia, and that these Africans introduced R1b, the Bell Beaker and the agro-pastoral cultural traditions into Eurasia during the Neolithic.

**Keywords:** Agro-pastoral, haplogroup, Bell Beaker, Yamnaya, Kushites, Ancient DNA (aDNA)

## INTRODUCTION

Ancient DNA (aDNA) indicates that R1 clades were carried by European hunter-gathers (CHG) and European farmers (EF). Villabruna man lived 14kya in Italy and carried R1b1a. European hunter-gatherers carried R1b1 in Spain and Samara. Many European farmers also carried varied R1 clades. Although the lineages R1b1 and R1b1a were recognized as R-V88 clades (Cruciani et al, 2010), some researchers claim that Y-Chromosome R1 is of Eurasian origin, without any collateral evidence from archaeology to support this claim.

Controversy surrounds the presence of Y-Chromosome R1 in Africa, Cruciani *et al.*, (2010) has suggested that the presence of R1 is the result of a back migration from Eurasia to Africa.

Haber *et al.*, (2016) argues that a linkage-disequilibrium decay method indicated that there were two Eurasian migrations back to Africa. The researchers believe the first event occurred 4700-7200 years ago which resulted in a Eurasian backflow to Africa of the Y-Chromosome lineage R1b-V88 by Neolithic LBK (Linearbandkeramik) or Linear Pottery population. The researchers claim that the LBK farmers probably migrated from the Near East to Northern Chad during the African Humid periods.

Haber et al, speculated that using PCA and MSMC analysis that the second Eurasian migration occurred 3kya. During the second migration the researchers claim, Eurasians deposited R-V88 among the Toubou, Laal and Sara who have 20%-34% R1b-V88 ancestry.

Haber *et al.*, (2016) claim that Eurasian migrations back into Africa, explains the Neanderthal ancestry of ~0.5% in the Toubou and ~1.0% in the Amhara, while there was “no detectable genetic impact on other Chadian populations”.

This theory lacks congruence because 1) there is no archaeological evidence of an Eurasian population in Africa (Winters, 2011,2014); 2) there is evidence of a Eurasian admixture in East and West Africa among populations that do not carry R-V88 or speak Afro-Asiatic languages (Pickrell,2014). Moreover, many African tribes like the Fulani, and Hausa carry R1b, but they are not from the Middle East (Winters,2010c).

Haber *et al.*, (2016) claims that Eurasians passed on Neanderthal ancestry to the Toubou and Amhara during the second migration. The researchers statement relating to this matter is contradictory, because

## **Research Article**

Haber *et al.*, (2016) says that Eurasians took R-V88 to Africa, the idea that “Neanderthal ancestry to Africa “diluted” the Neanderthal ancestry in the Near East “, because the only way Neanderthal ancestry could have been “diluted” in the Near East by a physical presence of Africans in the region during the Neolithic (2016). Occam Razor suggest that if there was a physical presence of Africans in the Near East to “dilute” Neanderthal ancestry there, Africans probably took R1b to Eurasians instead of a backflow from Eurasia (Winters, 2011,2014b).

## **MATERIALS AND METHODS**

In this study we are examining the Genomic structure of the populations that introduced the hunter-gather culture to Europe and its agro-pastoral traditions. We based our analysis on public genomic datasets and published articles. No new biological samples were collected for this study.

Analyzing the aDNA literature we assembled genome-wide data on the ancient populations of Africa, Mesopotamia and Crete. This data was used to obtain a profile of the haplogroups carried by the Kushites, European Farmers (EF) , Anatolian Agro-Pastoralists (AAP) and the Caucasus Hunter Gatherers (CHG).

### **Results**

#### **Niger Congo-Dravidian Speakers**

The linguistic, anthropological and linguistic data make it clear that the Dravidian people came to India from Africa during the Neolithic and not the Holocene period. Controversy surrounds the origin of the Dravidian languages. Winters (1989,2002) outlines the alleged relationship of Dravidian languages to Elamite, Sumerian and Japanese. Although the relationship of Dravidian languages to these languages is disputed, there is abundant evidence that Dravidian languages are genetically related to the Niger-Congo group (Aravaanan 1979, 1980 ; Homburger 1948, 1957; sergent,1992; Upadhyaya and Upadhyaya, 1976, 1979; Winters 1985, 1988, 1989, 2002).

In the sub-continent of India, there were several main groups. The traditional view for the population origins in India suggest that the earliest inhabitants of India were the Negritos, and this was followed by the Proto-Australoid, the Mongoloid and the so-called Mediterranean type which represent the ancient Egyptians and Kushites (Winters 1985). The the Proto-Dravidians were probably one of the cattle herding groups that made up the C-Group culture of Nubia Kush (Aravaanan, 1976; Winters, 2007, 2008). B.B. Lal (1963) an Indian Egyptologist has shown conclusively that the Dravidians originated in the Saharan area 5000 years ago. He claims they came from Kush, in the Fertile African Crescent and were related to the C-Group people who founded the Kerma dynasty in the 3rd millennium B.C. (Lal 1963; Winters,1985,2002). The Dravidians used a common black-and-red pottery, which spread from Nubia, through modern Ethiopia, Arabia, Iran into India as a result of the Proto-Saharan dispersal (Winters, 2002, 2012).

B.B. Lal (1963) a leading Indian archaeologist in India has observed that the black and red ware (BRW) dating to the Kerma dynasty of Nubia, is related to the Dravidian megalithic pottery. Singh (1982) believes that this pottery radiated from Nubia to India. This pottery along with wavy-line pottery is associated with the Saharo-Sudanese pottery tradition of ancient Africa. Aravaanan (1980) has written extensively on the African and Dravidian relations. He has illustrated that the Africans and Dravidian share many physical similarities including the dolichocephalic indexes (Aravaanan 1980), platyrrhine nasal index (Aravaanan 1980), stature (31-32) and blood type (Aravaanan 1980). Aravaanan (1980) also presented much evidence for analogous African and Dravidian cultural features including the chipping of incisor teeth and the use of the lost wax process to make bronze works of arts (Aravaanan 1980).

There are also similarities between the Dravidian and African religions. For example, both groups held a common interest in the cult of the Serpent and believed in a Supreme God, who lived in a place of peace and tranquility. There are also affinities between the names of many gods including Amun/Amma and Murugan. Murugan the Dravidian god of the mountains parallels a common god in East Africa worshipped by 25 ethnic groups called Murungu, the god who resides in the mountains.

## Research Article

There is physical evidence which suggest an African origin for the Dravidians. The Dravidians live in South India. The Dravidian ethnic group includes the Tamil, Kurukh, Malayalam, Kananda (Kanarese), Tulu, Telugu and etc. Some researchers due to the genetic relationship between the Dravidians and Niger-Congo speaking groups they call the Indians the Sudroid.

Dravidian languages are predominately spoken in southern India and Sri Lanka. There are around 125 million Dravidian speakers. These languages are genetically related to African languages. The Dravidians are remnants of the ancient Black population who occupied most of ancient Asia and Europe.

## Linguistic Evidence

**1.1** Many scholars have recognized the linguistic unity of Black African (BA) and Dravidian (Dr.) languages. These affinities are found not only in the modern African languages but also that of ancient Egypt. These scholars have made it clear that lexical, morphological and phonetic unity exist between African languages in West and North Africa as well as the Bantu group.

**1.2** K.P. Arvaanan (1976) has noted that there are ten common elements shared by BA languages and the Dr. group. They are (1) simple set of five basic vowels with short-long consonants; (2) vowel harmony; (3) absence of initial clusters of consonants; (4) abundance of geminated consonants; (5) distinction of inclusive and exclusive pronouns in first person plural; (6) absence of degrees of comparison for adjectives and adverbs as distinct morphological categories; (7) consonant alternation on nominal increments noticed by different classes; (8) distinction of completed action among verbal paradigms as against specific tense distinction; (9) two separate sets of paradigms for declarative and negative forms of verbs; and (10) use of reduplication for emphasis.

**1.3** There has been a long development in the recognition of the linguistic unity of African and Dravidian languages. The first scholar to document this fact was the French linguist L. Homburger (1950, 1951, 1957, 1964). Prof. Homburger who is best known for her research into African languages was convinced that the Dravidian languages explained the morphology of the Senegalese group particularly the Serere, Fulani group. She was also convinced that the kinship existed between Kannanda and the Bantu languages, and Telugu and the Mande group. Dr. L. Homburger is credited with the discovery for the first time of phonetic, morphological and lexical parallels between Bantu and Dravidians

ENGLISH	DRAVIDIAN	SENEGALESE	MANDING
MOTHER	AMMA	AMA, MEEN	MA
FATHER	APPAN, ABBA	AMPA, BAABA	BA
PREGNANCY	BASARU	BIR	BARA
SKIN	URI	NGURU, GURI	GURU
BLOOD	NETTARU	DERET	DYERI
KING	MANNAN	MAANSA, OMAD	MANSA
GRAND	BIIRA	BUUR	BA
SALIVA	TUPPAL	TUUDDE	TU
CULTIVATE	BEY	MBEY	BE
BOAT	KULAM	GAAL	KULU
FEATHER	SOOGE	SIIGE	SI, SIGI
MOUNTAIN	KUNDRU	TUUD	KURU
ROCK	KALLU	XEER	KULU
STREAM	KOLLI	KAL	KOLI

**Figure 1: Common Niger-Congo-Dravidian Terms**

**1.6** By the 1970's numerous scholars had moved their investigation into links between Dr. and BA languages on into the Senegambia region. Such scholars as Cheikh T. N'Diaye (1972) a Senegalese

## Research Article

linguist, and U.P. Upadhyaya (1973) of India , have proved conclusively Dr. Homburger's theory of unity between the Dravidian and the Senegalese languages.

**1.7** C.T. N' Diaye, who studied Tamil in India, has identified nearly 500 cognates of Dravidian and the Senegalese languages. Upadhyaya (1973) after field work in Senegal discovered around 509 Dravidian and Senegambian words that show full or slight correspondence.

**1.8** As a result of the linguistic evidence the Congolese linguist Th. Obenga suggested that there was an Indo-African group of related languages. To prove this point we will discuss the numerous examples of phonetic, morphological and lexical parallels between the Dravidian group: Tamil (Ta.), Malayalam (Mal.), Kannanda/Kanarese (Ka.), Tulu (Tu.), Kui-Gondi, Telugu (Tel.) and Brahui; and Black African languages: Manding (Man.), Egyptian (E.), and Senegalese (Sn.)

Dravidian and Senegalese Cognates			
English	Senegalese	Dravidian	
body	W. yaram	uru	
head	D. fuko,xoox	kukk	
hair	W. kawar	kavaram 'shoot'	
eye	D. kil	kan, khan	
mouth	D. butum	baayi, vaay	
lip	W. tun,F. tondu	tuti	
heart	W. xol,S. xoor	karalu	
pup	W. kuti	kutti	
sheep	W. xar	'ram'	
cow	W. nag	naku	
hoe	W. konki		
bronze	W. xanjar	xancara	
blacksmith	W. kamara		
skin	dol	tool	
mother	W. yaay	aayi	
child	D. kunil	kunnu, kuuci	
ghee	o-new	ney	

**Figure 2: Dravidian and Senegalese Cognates**

**6.1** Dravidian and Senegalese. Cheikh T. N'Diaye (1972) and U.P. Upadhyaya (1976) have firmly established the linguistic unity of the Dravidian and Senegalese languages. They present grammatical, morphological, phonetic and lexical parallels to prove their point.

**6.2** In the Dravidian and Senegalese languages there is a tendency for the appearance of open syllables and the avoidance of non-identical consonant clusters. Accent is usually found on the initial syllable of a word in both these groups. Upadhyaya (1976) has recognized that there are many medial geminated consonants in Dravidian and Senegalese. Due to their preference for open syllables final consonants are rare in these languages.

**6.3** There are numerous parallel participle and abstract noun suffixes in Dravidian and Senegalese. For example, the past participle in Fulani (F) -o, and oowo the agent formative, corresponds to Dravidian -a, -aya, e.g., F. windudo 'written', windoowo 'writer'.

## Research Article

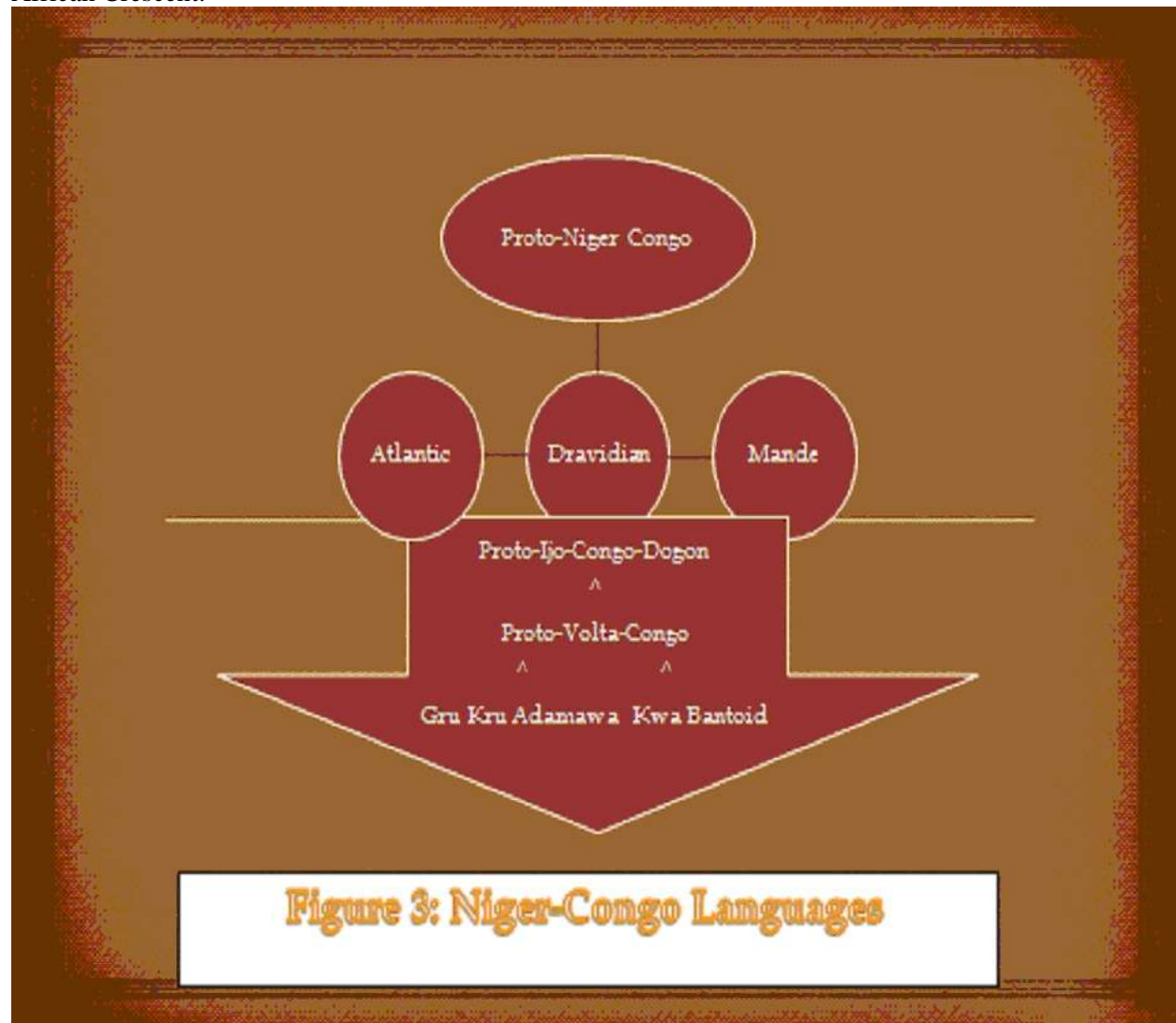
**6.4** The Wolof (W) -aay and Dyolo ay , abstract noun formative corresponds to Dravidian ay, W. baax 'good', baaxaay 'goodness'; Dr. apala 'friend', bapalay 'friendship'; Dr. hiri 'big', hirime 'greatness', and nal 'good', nanmay 'goodness'.

**6.5** There is also analogy in the Wolof abstract noun formative suffix -it, -itt, and Dravidian ita, ta, e.g., W. dog 'to cut', dogit 'sharpness'; Dr. hari 'to cut', hanita 'sharp-ness'.

**6.6** The Dravidian and Senegalese languages use reduplication of the bases to emphasize or modify the sense of the word, e.g., D. fan 'more', fanfan 'very much'; Dr. beega 'quick', beega 'very quick'.

**6.7** Dravidian and Senegalese cognates (See: Figure 2).

Above we provided linguistic examples from many different African Supersets (Families) including the Mande and Niger-Congo groups to prove the analogy between Dravidian and Black African languages (See: Figure 3) . The evidence is clear that the Dravidian and Black African languages should be classed in a family called Indo-African as suggested by Th. Obenga. This data further supports the archaeological evidence accumulated by Dr. B.B Lal (1963) which proved that the Dravidians originated in the Fertile African Crescent.





## **Research Article**

Using archaeological evidence we will reconstruct the set of migration processes that led to the raise of Neolithic cultures in Eurasia. The archaeological evidence indicates that Africans made several migrations into Eurasia. But, we have no archaeological evidence of a Eurasian culture carried back into Africa by any population (Winters, 2017b).

Jones *et al.*, (2015), make it clear that "Given their geographic origin, it seems likely that CHG [Caucasus hunter-gatherers] and EF [European Farmers] are the descendants of early colonists from Africa who stopped south of the Caucasus, in an area stretching south to the Levant and possibly east towards Central and South Asia". We also see an influx of hunter-gathers and EF in Western Eurasia from Africa, via Iberia (Winters, 2017b).

The African origin of these Levantines is supported by the history of Kushites. Trenton W. Holliday (2000), tested the hypothesis that if modern Africans had dispersed into the Levant from Africa, "tropically adapted hominids" would be represented in the archaeological history of the Levant, especially in relation to the Qafzeh-Skhul hominids. Holliday (2000) found that the Qafzeh-Skhul hominids (20,000-10,000), were assigned to the Sub-Saharan population, along with the Natufians samples (4000 BP). The Natufians and other Levantines carried haplogroup E, which originated in Africa (Lazaridis, 2015). Holliday (2000) also found African fauna in the area.

In recent years researchers have published work on the aDNA of Anatolia and Lower Egypt (Kilinc *et al.*, 2016; Martinez *et al.*, 2007; Schuenemann *et al.*, 2017), that allows us to present a fuller picture of Kushite genetic history. An examination of this history makes it clear that the Kushites, like other African population carried genes which have been misidentified as Eurasian.

### **Kushites**

The Kushites belonged to the C-Group culture of Nubia. The Kushites spoke Niger-Congo and Dravidian languages (Winters, 2012) (See: Supplementary File 1). The Niger-Congo (NC) Superfamily of languages is the largest family of languages spoken in Africa. Researchers have assumed that the NC speakers originated in West Africa in the Inland Niger Delta. The research indicates that the NC speakers originated in the Saharan Highlands 12kya and belonged to the Ounanian culture (Winters, 2012).

The Ounanian culture is associated with sites in central Egypt, Algeria, Mali, Mauretania and Niger (Winters, 2012). The Ounanian tradition is associated with the Niger-Congo phyla (Winters, 2012). This would explain the close relationship between the Niger-Congo and Nilo-Saharan languages.

The original homeland of the Niger-Congo speakers was probably situated in the Saharan Highlands during the Ounanian period. From here NC populations migrated into the Fezzan, Nile Valley and Sudan as their original homeland became more and more arid.

This was probably the ancient homeland of the Dravidians, Egyptians, Sumerians, Niger-Kordofanian-Mande, Anatolian Kushites and Elamite speakers. We call this part of Africa the Fertile African Crescent (Jelinek, 1985, Winters, 1995, 1991). We call these people the Proto-Saharans (Winters, 1985, 1991). The generic term for this group in the ancient literatures was: Kushite.

The Kushites lived in Africa and Asia (Winters, 2017b, Winters, 2018). Origination of these diverse Kushite tribes in the ancient Sahara, explains the analogy between the Bafsudraalam languages. These languages include [B]lack [af]rican [su]merian [draa]vidian e[lam]:Bafsudraalam.

The Kushites lived in Africa and Asia (Winters, 2017b). Origination of these diverse Kushite tribes in the ancient Sahara, explains the analogy between the Bafsudraalam languages. The IAM [Early Neolithic Moroccans] people (Fergel *et al.*, 2017), were nothing more than hunter-gatherer Kushites that had originally belonged to the Ounanian Culture (Winters, 2012, 2017b). The Ounanians, like their Kushite descendants were great archers and based their civilization on hunting using the bow, and limited cattle domestication (Winters, 2012, 2017b).

The Ounanian culture was first described by Breuil in 1930 at Ounan to the south of Taodeni in northern Mali. Ounanian Points are suggested to be the hallmark of the some Epipaleolithic industries in the central Sahara, the Sahel and northern Sudan, and dated to the early Holocene.

The original homeland of the Niger-Congo speakers was probably situated in the Saharan Highlands

Common Bafsudraalam Terms			
• Language	Chief	city,village	black/burnt
• Dravidian	cira,ca	uru	kam
• Elamite	salu		
• Sumerian	sar	ur	
• Manding	sa	furu	kam 'Charcoal'
• Nubian	sirgi	amr	uru-me
• Semitic	sarr		ham
• Ubaid	sar	ur	
• Egyptian 'blackland'	sr	mer	kemit
• Hausa	sarki	birni	
• Paleo-African	*Sar	*uru	*

during the Ounanian period. From here NC populations migrated into the Fezzan, Nile Valley and Sudan as their original homeland became more and more arid.

In the Eastern Sahara many individual types of tanged and shouldered arrowheads occur on early Holocene prehistoric sites along with Green Saharan/Wavy-line pottery (Drake *et al.*, 2010; Vernet *et al.*, 2007) . 'Saharo-Sudanese Neolithic' wavy-line, dotted wavy line and walking-comb pottery was used from Lake Turkana to Nabta Playa, in Tibestim , Mauritania, on into in the Hoggar, in Niger. This pottery evolved into the Beaker Bell ceramics.



**Wavy-line pottery**

### Research Article

The Ounanian culture was not isolated in Africa. It was spread into the Levant. As a result, we have in the archaeological literature the name Ounan-Harif point. This name was proposed for the tanged points at Nabta Playa and Bir Kiseiba .



**Tanged Point**

Harifian is a specialized regional cultural development of the Epipalaeolithic of the Negev Desert. Harifian has close connections with the late Mesolithic cultures of Fayyum and the Eastern Deserts of Egypt, whose tool assemblage resembles that of the Harifian. The tangled Ounanian points are also found at Fom Arguin . These points were used from Oued Draa, in southern Morocco, to the Banc d'Arguin and from the Atlantic shore to the lowlands of northwestern Sahara in Mauritania . We now have DNA from Ounanian sites in Morocco. All the burials in Ifri n'Amr o'Moussa site IAM1-IAM7 , are devoid of any artifacts, except for an original funeral ritual, which consists of placing a millstone on the skull (5) . These burials were dated from 4,850 to 5,250 BCE, they carried U6, M1, T2, X and K (Fregel et al, 2017). This suggests that Africans were already carrying this mtDNA. The spread of the Ounanians to Harif in the Levant explains the presence of these Kushite clades in the Levant and Anatolia.

The first Kushites came to the Levant with Narmer. Narmer was the first ruler to unify ancient Egypt. The reason we know Narmer was a Kushite is the fact that the bulla called this part of the Negev *ḥ3ts.t* ("Kush") or *ḥ3s.tj* ("Kushite"). and we find Narmer's name on jars and serekhs from excavations in Israel and Palestine , for example Tel Erani, Arad, 'En Besor, Halif Terrace/Nahal Tillah and more, we can assume that if he was recognized as ruler of the area he was also a Kushite (Levy et al,1997).

The Kushites were called *ḥ3št* in Africa and the Levant. Kushites had early settled in the Levant since Narmer times. The Kushites were called *ḥ3št* , Ta-Seti and Tehenu by the Egyptians (Winters,2012,2017). The Egyptian Pharaoh Sahure referred to the Tehenu leader as "Hati Tehenu" . The name Hati, correspond to the name Hatti for a Kushite tribe in Anatolia. The Hatti people often referred to themselves as Kashkas.

The Weni inscription from ancient Egypt acknowledges the fact that the Kushites lived not only in Nubia but, also in Lower Egypt, the Levant and Anatolia (Winters, 2017b). The Kushites living in Lower Egypt and across West Asia, were proud of their Kushite heritage and proudly declared their Kushite ancestry in



### **Research Article**

the inscriptions of the Hyksos rulers of Lower Egypt, and the writings of the Hattians and Hurrians of Anatolia.

The Kushite tribes in Anatolia had many names including Kassite, Hurrian and Hattian. An important group in Anatolia in addition to the Hatti, were the Hurrians (Winters, 2018). The Hurrians entered Mesopotamia from the northeastern hilly area. They introduced horse-drawn war chariots to Mesopotamia.

The Kushites remained supreme around the world until 1400-1200 BC. During this period the Hua (Chinese) and Indo-European (I-E) speakers began to conquer the Kushites whose cities and economies were destroyed as a result of natural catastrophes which took place on the planet between 1400-1200 BC. Later, after 500 AD, Turkish speaking people began to settle parts of Central Asia. This reason behind the presence of the K-s-h element in many place names in Asia e.g., Kashgar, HinduKush, and Kosh, is because these were regions settled by the Kushites. The HinduKush in Harappan times had lapis lazuli deposits.

Some of the Tehenu or Kushites settled Anatolia. The major Anatolian Kushite tribes were the Kaska and Hatti speakers who spoke the non-IE language called Khattili. The gods of the Hattic people were Kasku and Kusuh (< Kush) (See Supplementary File 3).

The Hattic people are related to the Hattiu, one of the Egyptian Delta Tehenu tribes. Many archaeologists believe that the Tehenu people were related to the C-Group people. The Hattic language is closely related to African and Dravidian languages (Winters, 2014, 2017b, 2018).

The Hurrians

An important group in Anatolia in addition to the Hatti, were the Hurrians. The Hurrians entered Mesopotamia from the northeastern hilly area (Potts, 1995; Winters, 2014). They introduced horse-drawn war chariots to Mesopotamia (Sagy, 1995).

Hurrians penetrate Mesopotamia and Syria-Palestine between 1700-1500 BC. The major Hurrian Kingdom was Mitanni, which was founded by Sudarna I (c.1550 B.C.), it was established at Washukanni on the Khabur River. The Hurrian capital was Urkesh, one of its earliest kings was called Tupkish.

Linguistic and historical evidence support the view that Dravidians influenced Mitanni and Lycia. (Winters 2014). Alain Anselin is sure that Dravidian speaking peoples once inhabited the Aegean. For example Anselin (1982) and Winters (2014) has discussed many Dravidian place names found in the Aegean Sea area.

Two major groups in ancient Anatolia were the Hurrians and Lycians. Although the Hurrians are considered to be Indo-European speakers, some Hurrians spoke a language related to the Dravidian languages (Winters, 2014).

The Hurrians lived in Mitanni. Mitanni was situated on the great bend of the Upper Euphrates river. Hurrian was spoken in eastern Anatolia and North Syria.

Until recently, most of what we knew about Hurrian came from the Tel al-Armarna letters. These letters were written to the Egyptian pharaoh. The al-Armarna letters are important because they were written in a language different from diplomatic Babylonian. Other information on Hurrian comes from the Mitanni names in Akkadian and Sumerian (Wegner, 1999; Winters, 2014).

The al-Armarna letters written in an unknown language to the Egyptians, were numbered 22 and 25. In 1909, Ferdinand Bork (1909), wrote a translation of the letters. Ilse Wegner (1999) used many examples from the Mitanni Letters in her discussion of Hurrian.

G.W. Brown (1930) proposed that the words in letters 22 and 25 were Dravidian especially Tamil. Brown (1930), has shown that the vowels and consonants of Hurrian and Dravidian are analogous. In support of this theory Brown (1930) noted the following similarities between Dravidian and Hurrian: 1) presence of a fullness of forms employed by both languages; 2) presence of active and passive verbal forms are not distinguished; 3) presence of verbal forms that are formed by particles; 4) presence of true relative pronouns is not found in these languages; 5) both languages employ negative verbal forms; 6) identical use of -m, as nominative; 7) similar pronouns; and 8) similar ending formations:

## Research Article

Dravidian	Hurrian
a	a
-kku	-ikka
imbu	impu

There are analogous Dravidian and Hurrian terms. They include kinship and cultural terms for example King, god, father and woman (Figure 4).

Comparison Hurrian and Dravidian Cultural Terms				
English	Hurrian	Dravidian		
mountain	paba	parampu		
lady, woman	aallay	ali		
King	Sarr, zarr	Ca, cira		
god	en	en		
give	tan	tara		
to rule	irn	ire		
father	attai	attan		
wife, woman	asti	atti		

**Figure 4: Hurrian and Dravidian Cultural/Kinship Terms**

Many researchers have noted the presence of many Indo-Aryan words in Hurrian. This has led some researchers to conclude that Indo –Europeans may have ruled the Hurrians. This results from the fact that the names of the Hurrian gods are similar to the Aryan gods:

Hurrian	Sanskrit
Mi-it-va	Mitra
Aru-na	Varuna
In-da-ra	Indra
Na-sa-at-tiya	Nasatya

There are other Hurrian and Sanskrit terms that appear to show a relationship to the Tamil language as illustrated in Figure 5:

Comparison Hurrian, Sanskrit and Tamil				
English	Hurrian	Sanskrit	Tamil	
One	aika	eka	okka	'together'
Three	tera	tri		
Five	panza	panca	añcu	
Seven	satta	sapta		
Nine	na	nava	onpatu	

**Figure 5: Comparison Hurrian , Sanskrit and Tamil**

Other Hurrian terms relate to Indo-Aryan as listed in Figure 6.

## Research Article

Comparison Hurrian, Indo-Aryan and Tamil Terms				
English	Hurrian	I-A	Tamil	
Brown	babru	babhru	pukar	
Grey	parita	palita	paraitu 'old'	
Reddish	pinkara	pingala	puuval	
English	Mitanni	Vedic	Tamil	
Warrior	marya	marya	makan, maravan	

**Figure 6: Hurrian Tamil and Indo-Aryan Terms**

Although researchers believe that the Hurrians-Mitanni were dominated by Indo-Aryans (I-A) this is not supported by the evidence. Bjarte Kaldhol found that only 5 out of 500 Hurrian names were I-A sounding (Gupta, 2004).

The linguistic evidence discussed above is consistent with the view that the only Indian elements in Anatolian culture were of Dravidian, rather than Indo-Aryan origin. This evidence from Mittanni adds further confirmation to the findings of N. Lahovary in Dravidian Origins and the West, that prove the earlier presence of Dravidian speakers in Anatolia. It also explains why we find Y-Chromosome R1a among the ancient Anatolians and European farmers.

The Hatti Using boats the Kushites moved down ancient waterways in Middle Africa and Arabia, many now dried up, to establish new towns in Asia and Europe after 3500 BC. The Kushites remained supreme around the world until 1400-1200 BC.

During this period the Hua (Chinese) and Indo-European (I-E) speakers began to conquer the Kushites whose cities and economies were destroyed as a result of natural catastrophes which took place on the planet between 1400-1200 BC. Later, after 500 AD, Turkish speaking people began to settle parts of Central Asia. This is the reason behind the presence of the K-s-h element in many place names in Asia e.g., Kashgar, HinduKush, and Kosh. The HinduKush in Harappan times had lapis lazuli deposits.

“A race divided, whom the sloping rays; the rising and the setting sun surveys...” Most researchers assume that the ancient assertion of Kushites ruling the Middle East from Phoenicia to Syria is pure myth, however seals and other inscriptions of the Hyksos King Apophis suggest there may be some truth to the stories told by famous figures such as Homer and Strabo (Winters, 2017).

Around 800 BC, the Greek poet Homer mentions the Aethiopians, or Kushites, in the *Iliad* and the *Odyssey*. Homer said that the Kushites were “the most just of men, the favorites of the Gods”.

To the Greeks and Romans there were two Kush empires, one in Africa and the other in Asia (Winters, 2017). Homer alluded to the two Kushite empires when he wrote in the *Odyssey* i.23: “a race divided, whom the sloping rays; the rising and the setting sun surveys”. In the *Iliad*. i.423, Homer wrote that Zeus went to Kush to banquet with the blameless Ethiopians.

In 64 BC, the Greek geographer and historian Strabo stated in Chapter 1 of *Geography* that there were two Kush empires - one in Asia and another in Africa. In addition to Kush in Nubia and Upper Egypt, some Greco-Roman authors considered their presence in southern Phoenicia up to Mount Amanus in Syria.

Kushites expanded into Inner Asia from two primary points of dispersal : Iran and Anatolia (Winters,2014) . In Anatolia the Kushites were called Hattians, Kassite, Elamites, Sumerians and Kaska. Up until the 2nd millennium BC, the north and east of Anatolia was inhabited by non-I-E speakers.

The Elamites lived in the Fars and the Bakhtiar valleys. This mountain area was named Elimaid in ancient times.

## Research Article

The Elamites called themselves: Khatan. The capital city of the Elamites Susa ,was called: Khuz by the Indo-European speakers, and Kussi by the Elamites. The Chinese called the Elamites Kashti. The Armenians called the eastern Parthia: Kushana.

Similar pottery was used in West Asia. The pottery from Susa in Iran and Eridu in Mesopotamia of the fifth millennium BC are identical. Between 3700 and 3100 BC, Elam was under the influence of Uruk, as indicated by the shared art found at these sites during this period.

By the end of the 4th millennium BC , we see the beginnings of distinctive Elamite culture in the western Fars, at the Kur Valley. Here at Tel-i-Malyan we see the first Proto-Elamite tablets written in the Proto-Saharan script. Other Proto-Elamite writings soon appear at Susa.

The authors of the Proto-Elamite tablets were of Proto-Saharan origin. Malyan and Susa soon became the kingdoms of Anshan and Susa. These Proto-Elamites soon spread to Tepe Sialk and Tepe Yahya which was reoccupied after being abandoned earlier due to ecological decay.

The Proto-Saharans in Elam shared the same culture as their cousins in Egypt, Sumer, Elam and the Indus Valley. Vessels from the IVBI workshop at Tepe Yahya (c.2100-1700 BC), have a uniform shape and design. Vessels sharing this style are distributed from Soviet Uzbekistan, to the Indus Valley. In addition, as mentioned earlier we find common arrowheads at sites in the Indus Valley ,Iran, Egypt, Minoan Crete and early Heladic Greece.

Many of the Kushites in Aantolia belonged to the Tehenu Nation. Some of the Tehenu or Kushites settled Anatolia. Some of the major Anatolian Kushite tribes were the Kaska and Hatti speakers who spoke non-IE languages called Khattili. The gods of the Hattic people were Kasku and Kusuh (< Kush).

The Tehenu was composed of various ethnic groups. One of the Tehenu tribes was identified by the Egyptian Pharaoh as the Hatui or Haltiu (El Mosallamy,1986 ).

Some people claim that **ḥ3st** means ‘foreign lands’. Semantically, for example “Wawat Rulers of foreign lands”, is incorrect, because Wawat was the name of a nation, not a king. As a result, **ḥ3st**, was used to identify the nationality of the Wawat, Kau and other Kushite = **ḥ3st**. Thusly, the inscription of Weni reads: “His majesty made war on the Asiatic Sand-dwellers and his majesty made an army of many ten thousands; in the entire South, southward to Elephantine, and northward to Aphroditopolis [Busiris]; in the Northland on both sides entire in the [stronghold], and in the midst of the [strongholds], among the Irthet khas [Kusites], the Mazoi khas [Kushites], the Yam khas [Kushites], among the Wawat Khas [Kushites], among the Kau khas [Kushites], and in the land of Temeh.”



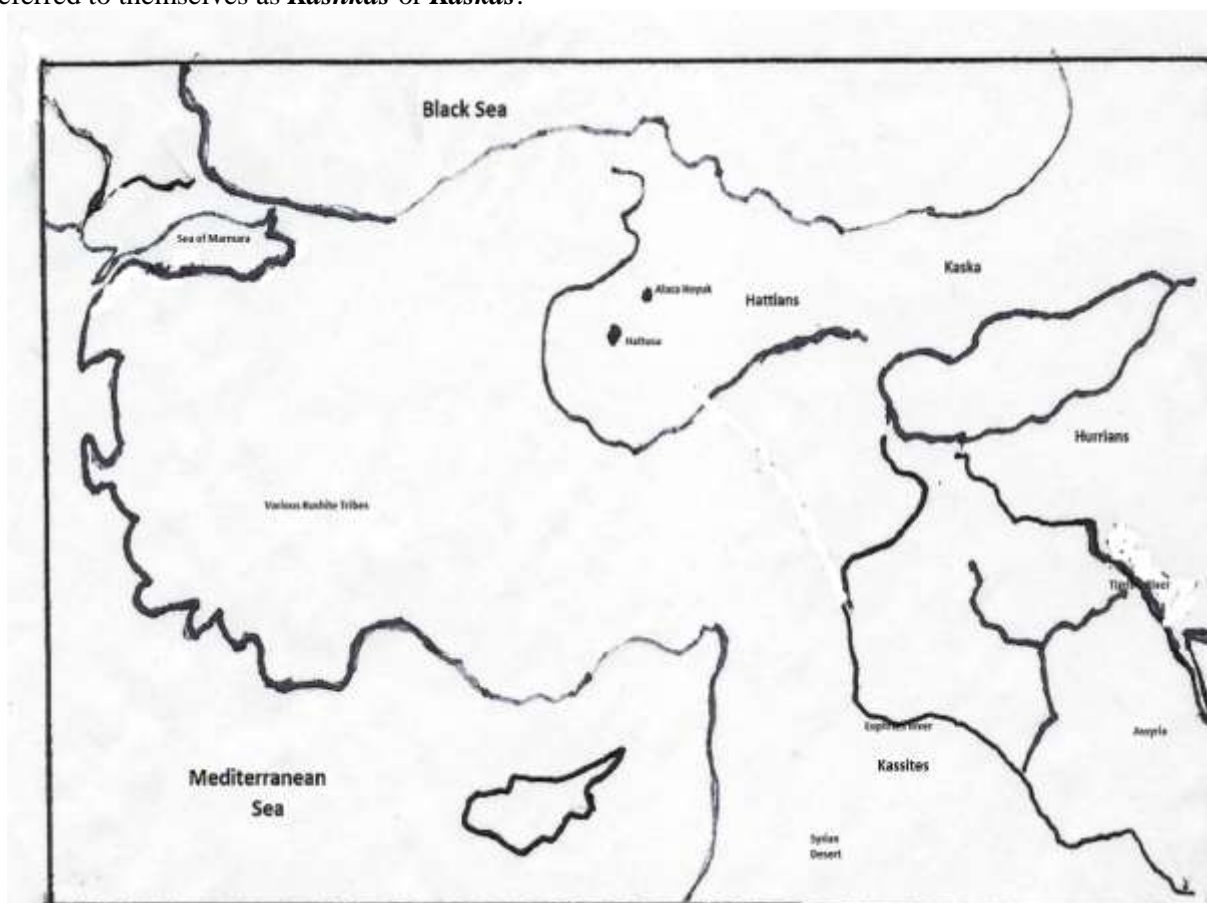
Figure 7: The Egyptian Signs for Kush

In the Weni inscription we can clearly see that the **ḥ3st** or Kushites were living in Upper and Lower Egypt. It is made clear that **khas** [Kushites] were also “in the land of Temeh”. The Egyptians made it clear that LOWER EGYPT was called : TAMEH , and UPPER EGYPT : TA SHEMA . Because the **khas**

## Research Article

[Kushites], were living in Lower Egypt, when the Kings of *khas* [Kushites] took control of Egypt during the Hyksos period they were returning to the lands of their ancestors *Hega khas* [Kushites] =Kings of the Kushites.

The Weni inscriptions includes Wawat, Yam and Temeh as *h3st* or Kushite Nation. In the Weni inscription we can clearly see that Kushites were living in Upper and Lower Egypt. It is made clear that *khas* [Kushites] were also “in the land of Temeh”. The Egyptians made it clear that LOWER EGYPT was called : *TAMEH* , and UPPER EGYPT : *TA SHEMA* . Because the *khas* [Kushites], were living in Lower Egypt, when the Kings of *khas* [Kushites] took control of Egypt during the Hyksos period they were returning to the lands of their ancestors *Hega khas* [Kushites] =Kings of the Kushites. The *khas* [Kushites ] belonged to the C-Group people and lived in Upper and Lower Egypt between 3700-1300 BC and were called *Tmhw* (Temehus). The Temehus were organized into two groups: the *Thnw* (Tehenu) in the North and the *Nhsj* (Nehesy) in the South. During the Fifth Dynasty of Egypt (2563-2423), namely during the reign of Sahure there is mention of the Tehenu people. Sahure referred to the Tehenu leader “*Hati Tehenu*” (El Mosallamy,1986; Winters, 2017). These *Hatiu*, may correspond to the Hatti speaking people of Anatolia. The Hatti people often referred to themselves as *Kashkas* or *Kaskas*.



Map of Ancient Anatolian Kushite Tribes

Another major Kushite group that ruled from Mesopotamia to northern India was the Kassites. The Kassites, occupied the central Zagros. The Kassites were also called Kashshu. This name agrees with Kaska, the name of the Hattians. P.N. Chopra, in ‘The History of South India’, noted that the Kassite language bears unmistakable affinity to the Dravidian group of languages.



## Research Article

Anatolia was divided into two lands “the land of Kanis” and the “land of Hatti”. The Hatti were related to the Kaska people who lived in the Pontic mountains (See Map).

Hattians lived in Anatolia. They worshipped Kasku and Kusu. They were especially prominent in the Pontic mountains. Their sister nation in the Halys Basin were the Kaska tribes. The Kaska and Hattians share the same names for gods, along with personal and place-names. The Kaska had a strong empire which was never defeated by the Hittites (Singer, 2007).

Singer (1981) has suggested that the Kaska, are remnants of the indigenous Hattian population which was forced northward by the Hittites. But at least as late as 1800 BC, Anatolia was basically settled by Hattians.

Anatolia was occupied by many Kushite groups, including the Kashkas and or Hatti (Singer, 2007). The Hatti, like the Dravidian speaking people were probably related to Niger-Congo speakers since they were a Kushite tribe.

The Hatti controlled the city state of Kussara. Kussara was situated in southern Anatolia.

The earliest known ruler of Kussara was Pitkhanas. It was his son Anitta (c. 1790-1750 BC) who expanded the Kussara Empire through much of Anatolia.

Many researchers get the Hittites (*Nesa*) mixed up with the original settlers of Anatolia called Hatti according to Steiner (1981). He wrote “[T]his discrepancy is either totally neglected and more or less skillfully veiled, or it is explained by the assumption that the Hittites when conquering the country of Hatti adjusted themselves to the Hattians adopting their personal names and worshipping their gods, out of reverence for a higher culture”.

It is clear that the Anatolians spoke many languages including: Palaic, Hatti, Luwian and Hurrian, but the people mainly wrote in Neshumnili. The first nation to use this system as the language of the royal chancery were Hatti.

Comparison of African and Hattic Words				
English	Hattic	Egyptian	Malinke (Mande language)	
powerful	ur	wr'great, big'	fara	
protect	\$uh	swh	solo-	
head	tup	tp	tu 'strike the head'	
up, upper	tufa	tp	dya, tu 'raising ground'	
to stretch put	pd	pe	bamba	
o prosper	falfat	--	find'ya	
pour	duq	--	du 'to dispense'	
child	pin	pinu	den	
Mother	na-a	--	na	
lord	sa	--	sa	
place	-ka	-ka		

**Figure 8: Comparison African and Hattic Terms**

*Neshili*, was probably spoken by the Hatti, not the IE Hittite. Yet, this language is classified as an IE language. Researchers maintain that the Hatti spoke '*Hattili*' or *Khattili* “language of the Hatti”, and the IE Hittites spoke "*Neshumnili*"// *Neshili* (Diakonoff and Kohl, 1990). Researchers maintain that only 10% of the terms in Neshumnili is IE. This supports the view that Neshumnili may have been a lingua

## Research Article

franca.

Itamar Singer (1981) makes it clear that the Hittites adopted the language of the Hatti . Steiner (1981) wrote that, " In the complex linguistic situation of Central Anatolia, in the 2nd Millennium B.C. with at least three, but probably more different languages being spoken within the same area there must have been the need for a language of communication or lingua franca (i.e., *Neshumnili*), whenever commercial transactions or political enterprises were undertaken on a larger scale" (Singer, 1981).

The Hattic people, were members of the **Hatiu** tribe, one of the Delta Tehenu tribes. The Tehenu people were related to the C-Group people. The Hattic language is closely related to African and Dravidian languages (See: Figure 8).

The languages have similar syntax Hattic *le fil* 'his house'; Mande *a falu* 'his father's house'. This suggest that the first Anatolians were Kushites, a view supported by the Hattic name for themselves: Kashka *h3st* or Kushite Nation.

The Hatti language which provided the Hittites with many of the terms Indo-Aryan nationalists use to claim and Aryan origin for the Indus civilization is closely related to African languages including Egyptians (Figure 9).

Comparison Hattic and African Languages				
Language	Big, mighty, powerful protect, help upper			
Hattic	ur	Šuh	tufa	
Egyptian	wr	swh	tp	
Malinke	fara	solo	dya, tu 'raising'	
	Head	stretch (out)	prosper	to pour
Hattic	tu	put	falfalat	duq
Egyptian	tup	pd		
Malinke	tu 'strike head'	pe, bemb	fin'ya	du

**Figure 9: Shared African and Hattic Terms**

The Malinke-Bambara and Hatti language share other cognates and grammatical features. For example, in both languages the pronoun can be prefixed to nouns, e.g., Hatti *le* 'his', *le fil* 'his house'; Malinke-Bambara *a* 'his', *a falu* 'his father's house'. Other Hatti and Malinke- Bambara cognates include: Hattic *b'la ka -ka Kaati*, Malinke *n'ye teke -ka ka, kuntigi* 'headman' Good hypothesis generation suggest that given the fact that the Malinke-Bambara and Hatti languages share cognate terms, Sumerian terms may also relate to Hatti terms since they were also Kushites. Below we compare a few Hatti, Sumerian and Malinke-Bambara terms (Figure 10).

Hatti, Sumerian and Malinke Bambara terms				
Language	Mother	father	lord, ruler	build, to set up
Hattic	na-a		ša	tex
Malinke	na	baba	sa	te
Sumerian	na 'she'	aba		tu 'to create'
	To pour	child, son	up, to raise	strength, powerful land
Hatti	dug	pin, pinu	tufa	ur -ka
Malinke	du den	dya,	tu	fara -ka
Sumerian	dub	peš	dul	usu ki

**Figure 10: Hatti, Sumerian and Malinke Bambara terms**

## Research Article

Hattic is also related to the Caucasian Languages. The Caucasian speakers were probably Kushites. N. Lahovary (1963, p.39) is sure that the Caucasian speakers are descendants of the Egyptian colony at the Colchis. This would explain the close relationship between Dravidian-Lycian and Caucasian, and Caucasian and African languages including Egyptians as discussed by Lahovary in his book.

### Kushite Phylogeography

We now have ancient DNA (aDNA) from Africa. This aDNA allows us to determine the DNA carried by Africans during the Iberomaurusian period and later. This aDNA is from Iberomaurusian skeletons exhumed from the archaeological site of Afalou (15,000–11,000 YBP) in Algeria, and the archaeological site of Taforalt (23,000–10,800 YBP) in Morocco (Kefi et al, 2016).

The researchers found five different mtDNA haplogroups: H, U, J, J1c3f and T2 (Kefi et al, 2016). Van de Loosdrecht et al, (2018), found that Taforalt population carried haplogroups M1b and U6. This makes it clear that as early as 10.8kybp-23kybp Africans were carrying mtDNA haplogroups: H, U, J, J1c3f, M1b, T2 and U6. The Y-chromosome among the Taforalt population was haplogroup E1b1ba1 (M-78) (Loosdrecht et al, 2018).

The Kushites expanded from Nubia, into Crete and West Asia. As a result, we find that the Cretans and Anatolians shared the same DNA. The Cretans were called *Keftiu*. The *Keftiu*, are descendants of the Garamantes, a Mande speaking tribe.

The mtDNA haplogroups L1, L2, L3, M1, N, H, U5 and U6 are associated the Kushite speakers. Phylogenetically all the Eurasian mtDNA branches descend from haplogroup L3.

The highest concentration of U5, is found among the Berbers/Taureg in North Africa. It is also carried by Mande and Fulani speakers. The Djola Mande speakers, also carry mtDNA M1, H and N (Rosa et al, 2009). The U5 haplogroup is characterized by hypotypes 16189, 16192, 16270 and 16320.

The Pan-African haplotypes are 16189, 16192, 16223, 16278, 16294, 16309, and 16390. This sequence is found in the L2a1 which is highly frequent among the Mande speaking group and the Wolof.

The Minoan mtDNA was H (43.2%), T (18.9%), K (16.2%) and I (8.1%). Haplogroups U, W, J2, X and J, were each identified in a single individual.

Because the Cretans were Mande speakers we expect contemporary Mande to carry these genes. The Mande speakers, in the genetics literature are represented under varying names including Djola and Mandekan. The Djola and Mandekan carry 2% Eurasian admixture. Some of the Mande speakers live in Mali, and carry the N and H haplogroups.

The genomic data for the ancient Cretans and Anatolians is important because in addition to Kushites living in Crete and Anatolia, Kushites also lived in Lower Egypt at Abusir, Egypt (Schuenemann et al, 2017).

In Schuenemann et al., (2017) there were 100 mummies in the study. A total of 27 mummies were dated between 992-749 BC. The dates for these mummies precede the entrance of Romans, Greeks, Turks and Arabs in Egypt.

As a result, the Abusir mummies dating between 992-749 BC, reflect the Kushites who lived in Lower Egypt. The frequencies of the major Kushite clades were U (18.5%), T (22.2%), J (18.5%), X (0.07%), H (0.07%) and M1a (0.07). The presence of these haplogroups at Abusir, shows that the U, T and J clades had a high frequency among ancient Egyptians and Kushites. This is not surprising because the Iberomaurusians carried identical genes.

The aDNA of the Abusir mummies, as African Kushite DNA, is supported by recent aDNA from Ifri n'Amr o'Moussa. The Ifri n'Amr o'Moussa site is an Early Neolithic Moroccan site. The DNA, haplotypes from this site is dated between 4,850 to 5,250 BCE. The aDNA recovered was U6, M1, T2, X and K (Fregel et al, 2017). The correspondence between the Iberomaurusian, Early Neolithic Moroccan DNA, and Abusir DNA, is due to the spread of the Ounians [Kushites] to Harif in the Levant. The Ounan-Harif points, Weni text and identification of Hattic and Kaska tribes in Anatolia, explains the presence of these Kushite clades in the Levant and Anatolia (Winters, 2018).

## Research Article

There is mtDNA data uniting Africans and Dravidians. Some researchers attempt to portray the Dravidians as Caucasoid people and try to link these people to western Eurasian populations. Other researchers in India attempt to postulate an Indian origin for Dravidians because they mainly belong to the M haplogroup (HG) (Kivisild *et al.*, 1999; Thangaraj *et al.*, 2006).

Clearly, the dates for L3(M,N) in western Eurasian are incongruent to TMRCA of the populations carrying the L3(M,N) lineages into eastern Eurasia which probably date to 60-65kya. This incongruence in relation to the dates for this haplogroup in eastern Eurasia, and its complete absence in much of western Eurasia today suggest that the population carrying these genes into Eurasia may not have entered Eurasia during the recognized Africa exit event.

In addition to ancient mtDNA M1 in Africa, we also find haplogroups M\*, M23, M3 positions 482 and 16126; M30 positions 195A and 15431; and M33 position 2361 (Winters, 2006). It is interesting to note that the presence of these genes, which are normally found in India are also found in Africa, is interesting given the presence of M1 in India and the existence of these genes among populations stretching from Africa into Yemen on into India along a path associated with the spread of the Tihama culture (Winters, 2008).

In addition to haplogroups M1, M\* and N in Sub-Saharan Africa we also find among the Senegambians hapotype AF24 (DQ112852), which is delineated by a DdeI site at 10394 and AluI site of np 10397. The AF-24 haplotype is a branch of the African subhaplogroup L3. This is the same delineation of haplogroup M\*. It is clear from the molecular evidence that the M1, M and N haplogroups are found not only in Northeast Africa, but across Africa from East to West (Winters, 2007).

Neanderthals dominated the Levant when the imagined back migration of M1 occurred 50kya, we must reject the contention of Gonzalez *et al.*, (2007), Olivieri *et al.*, (2007) and Sores *et al.*, (2012) that M1 originated in Asia because 1) the possible Senegalese origin of the M1c subclade; 2) the absence of the AF-24 haplotype of haplogroup L0d in Asia; and 3) the African origin of the Dravidian speakers of India (Winters, 2007, 2008) who carry the most diverse M haplogroups.

Moreover, the existence of the L3a(M) motif in the Senegambia characterized by the DdeI site np 10394 and AluI site np 10397 in haplotype AF24 (DQ112852) make a 'back migration of M1 to Africa highly unlikely, because of the ancientness of this haplotype and presence of the haplogroup among the Iberomaurusian (Loosdrecht *et al.*, 2018). The first amh to reach Senegal belonged to the Sangoan culture which spread from East Africa to West Africa probably between 100-80kya.

Most researchers make it appear that the M1 haplogroup is only found in Ethiopia. These researchers maintain that the M1 HG is restricted to the Afro-Asiatic linguistic phylum. This is false M HGs are found in other parts of Africa where people speak non-Afro-Asiatic languages.

The M lineages are not found only in East Africa. Rosa *et al.*, (2009) found a low frequency of the M1 HG among West Africans who speak the Niger Congo languages, such as the Balanta-Djola. Gonzalez *et al.*, (2006) found N, M and M1 HGs among Niger-Congo speakers living in Cameroon, Senegambia and Guinea Bissau.

Thangaraj *et al.*, (2009) recognize a Paleolithic origin for the M haplogroups in India. The majority of Dravidian speaking people belong to the M haplogroup. Most geneticists agree that the M macrohaplogroups are derived from L3. Kivisild *et al.*, (1999) made it clear that all Indian mtDNA lineages "coalesce finally to the African L3a".

Metspalu *et al.*, (2004) argues that the earliest offshoots for L3, were HGs M and N developed in Arabia. Metspalu *et al.*, (2004) believes the MRCA for the M HG entered Asia 60-65 kya.

Metspalu *et al.*, (2004) maintains that "all the basal trunks of M, N and R have diversified in situ" (p.24). He makes it clear that in his opinion the M HGs are different from the subhaplogroup M of East Asia. The most frequent HG in India is M2.

Sixty percent of the Indian mtDNA lineages are M HGs. Kivisild *et al.*, maintains that there are five M HGs in India: M1, M2, M3, M4, and M5. Thanaraj *et al.*, (2009) has revised the classification of HGs M3, M18 and M31 and defined the novel HG M41.

## Research Article

The diversity of M HGs in India has led many researchers to suggest that the M clades have an in-situ origin. These researchers speculate that although L3 originated in Africa, the M1 HG in Ethiopia and Egypt, may be the result of a back migration to Africa from India. This theory can no longer be supported given the presence of M1 among the Iberomaurusians (Loosdrecht et al., (2018).

These researchers base this theory for a back migration to Africa from India, on 1) HG M1 is not found in India; and 2) the M HGs are only found in East Africa. Both of these theories have little support when we look at the mtDNA data for Africa and India.

Barnabas *et al.*, (2005) noted that N, M and F lineages found in India could have originated in Africa. He speculated that these people migrated to India from Africa during the Upper Paleolithic.

It is also not true that HG M1 is absent in India. Kivisild *et al.*, (1999) found five M HGs in India: M1, M2, M3, M4 and M5. It is interesting to note that the M4 HG has the same 16311 coding region as the African M1 HG.

Kivisild *et al.*, (1999) provides the first detailed discussion of the M subclusters in India and suggested an autochthonous development of these lineages in India. The researchers suggest that there were multiple M lineages when this haplogroup migrated to Asia (Guilaine, 1976). These researchers claimed that the expansion date for the five M subclusters expanded into India between 17,000-32,000 bp.

Kivisild *et al.*, (1999) noted that 26 of the subjects in his study belonged to the M1 haplogroup. It is clear from this study that sub-cluster M1 was found mainly in the Indian states of Kerala and Karnataka (Guilaine, 1976). An interesting finding in the study was that most of the Indians with the M1 HG were members of upper caste. Africans and Dravidians share haplogroups M1, M3, M30 and M33 (Winters, 2006).

The expansion of Kushites in Asia explains why Africans carry so-called Eurasian genes (Winters, 2017b). This proves that the back migration theory for L3(M,N) and Y-Chromosomes R, and G, originated in Africa thousands of years before anatomically modern humans exited Africa.

The phylogeography of Y-Chromosome haplotypes shared among the Kushite Niger-Congo speakers include A, B, E1b1a, E1b1b, E2, E3a and R1. The predominate Y-Chromosome among the Niger-Congo is M2, M35, and M33.

Haplogroup E has three branches carried by Kushite populations E1, E2 and E3. The E1 and E2 clines are found exclusively in Africa. Haplogroup E3 is also found in Eurasia. Haplogroup E3 subclades are E3b, E-M78, E-M81 and E-M34.

The majority of Kushites belong to E1b1a, E1b1b, E2 and R1. Around 90% belong to Y-Chromosome group E (215, M35\*).

Y-Chromosome haplogroup A is represented among Niger-Congo speakers. In West Africa, under 5% of the NC speakers belong to group A. Most Niger-Congo speakers who belong to group A are found in East Africa and belong to A3b2-M13: Kenya (13.8) and Tanzanian (7.0%).

The Bantu expansion is usually associated with the spread of Y-Chromosome E3a-M2. In Kenya the frequency for E3a-M2 is 52%; and 42% in Tanzania. In Burkina Faso high frequencies of E-M2\* and E-M191\* are also represented. It is interesting to note that among the Mande speaking Bisa and Mandekan there are high frequencies of E-M2\*. This is in sharp contrast to the Marka and South Samo who have high frequencies of E-M33.

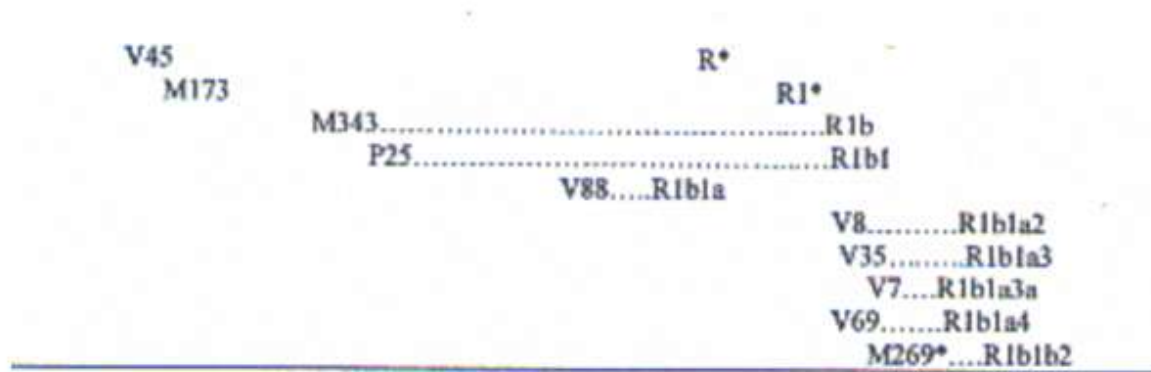
Y-chromosome R1 is found throughout Africa. The pristine form of R1\*-M173 is only found in Africa (Cruciani et al, 2010, 2010b; Coia et al, 2005; Winters, 2010, 2011). The age of Y-Chromosome R is 27ky (Kivisild, 2017). There is a great diversity of the macrohaplogroup R in Africa as illustrated in Table 1.

The name for African R Y-Chromosome haplogroups in Africa are constantly being changed. In Figure 11, we see that in 2010, a predominant R Y-Chromosome clade in Africa is haplogroup R1b (Carvalho et al, 2011; Cruciani *et al.*, 2010, 2010b; Winters, 2016, 2017a) and R1b1 (Berniell-Lee et al, 2009). Cruciani *et al.*, (2010) discovered new R1b mutations including V7, V8, V45, V69, and V88.



## Research Article

Geography appears to play an insignificant role in the distribution of haplogroup R in Africa. Cruciani *et al.*, (2010) has renamed the R\*-M173 (R P-25) in most of Africa V88. The TMRCA of V88 was 18 kya (Kivisild, 2017).



**Figure11: African Y-Chromosomes 2010**

Y-chromosome V88 (R1b1a) has its highest frequency among Chadic speakers, while the carriers of V88 among Niger-Congo speakers (predominately Bantu people) range between 2-66% . Haplogroup V88 includes the mutations M18, V35 and V7. Cruciani *et al.*, (2010) revealed that R-V88 is also carried by Eurasians including the distinctive mutations M18, V35 and V7.

Haplogroup R1b1-P25 was originally thought to be found only in Western Eurasia. Haplogroup R1b1\* is found in Africa at various frequencies. Today R1b1 is called R-L278.

The first offshoot of R1b-M343 was V88. The Y-Chromosome V88 is a signature African haplogroup. Toomas Kivisild (2017) noted: "Interestingly, the earliest offshoot of extant haplogroup R1b-M343 variation, the V88 sub-clade, which is currently most common in Fulani speaking populations in Africa (Cruciani *et al.*, 2010; Winters, 2010b, 2011), has distant relatives in Early Neolithic samples from across wide geographic area from Iberia, Germany to Samara ." The relative of V88 in ancient Europe was R1b1.

In 2010, R-V88 was originally named R1b1a . Today R-V88 is named R1b1a2, and R1b1a is renamed R-L754.

The ancient Europeans and Africans share R-L278 and R-L754. The earliest carrier of R-L278 in Europe was the hunter-gatherer Villabruna man in Italy. Villabruna man lived 14kya. We also had hunter-gatherers carrying RL278 (R1b1) in Spain and Samara. This would place Africans carrying R-L278 in Europe long before the origination of the Bell Beaker and Yamnaya cultures.

The Kushite haplogroups in Crete and West Asia varied. The Y-Chromosome among the Cretans and Anatolians were J,G, R1a1, R1b, T, K and H.

Martinez *et al.*, (2007), observed that in the case of the R1 haplogroup, while frequencies of 19.2% and 21.7% are found in the Heraklion Prefecture and Lasithi Prefecture populations, respectively, more than half (56.1%) of the Lasithi Plateau individuals are R1-M306-derived.

In the case of Cretan E3b3-M123 (M34) chromosomes, they most likely signal East African or Middle-Eastern gene flow rather than European, due to the scarcity of this lineage in the latter area. Similarly, the presence of E3b-M35\* individuals in the Heraklion Prefecture population could probably be attributed to an East-African or North-African contribution.

The finding that other Minoans carried haplotype T and K also indicates that the Minoans were Blacks, not whites. There are a number of shared African and Indian Y-chromosome haplotypes. These

## Research Article

haplotypes include Y-HG T-M70 and H1. Haplogroup T-M70 is found among several Dravidian speaking tribal groups in South India, including the Yerukul (or Kurru) , Gonds and Kols. Y-haplogroup T-M70 is found in the eastern and southern regions of India (Trivedi et al, 2008). It has a relatively high frequency in Uttar Pradesh and Madhya Pradesh (Sharma et al, 2009). Sharma *et al.*, (2009) in a study of 674 Dalits found that 89.39 % belonged to Y-HG K\*, in relation to Dravidian speakers it was revealed that Y-HG T-M70 was 11.1%. Trevedi *et al.*, (2008) report that Y-HG T-M70 is predominately found among Upper Caste Dravidians at a frequency of 31.9. The highest frequency of T-M70 in the World is found among the Fulani (18%) of West Africa. Martinez *et al.*, (2007) also found T-M70 and hg K in Crete .

Ramana *et al.*, (2001) claims that the discovery of H1 and H2 haplotypes among the Siddis is a “signature” of their African ancestry. As a result, the Y-HG H1 subclade frequency among Dravidian speakers can also be considered as an indicator of an African-Cretan-Dravidian connection.

The H1 haplotype is found among many Dravidians (Winters,2010d). Sengupta *et al.*, (2006) noted that the subclades H1 and H2 were found among 26% of the Dravidian speakers in their study, especially in Tamil Nadu. Trivedi *et al.*, (2008) found the Y-hg H1 frequency of 22.2 among Dravidian speakers in their study. Sharma *et al.*, (2008) reports a frequency rate of 25.2%.

We looked at previously published Y-Chromosome haplotype gene variants in Indian populations. The H1 haplotype is found among many Dravidians. Sengupta *et al.*, (2006) noted that the subclades H1 and H2 was found among 26% of the Dravidian speakers in their study, especially in Tamil Nadu . Ramana *et al.*, (2001) claims that the discovery of H1 and H2 haplotypes among the Siddis is a "signature" of their African ancestry (Winters, 2010e). The frequency of the H1 subclade among Dravidian speakers is also an indicator of an African-Dravidian connection (Winters, 2007, Winters, 2008, Winters, 2010d, Winters,2010e).

Watkins *et al.*, (2008) noted that the common Indian Y-haplogroups were predominantly R1a1 (27%) and R2 (11%); the major lineage in the Tamil castes, include H (21%, predominantly H1), L (13%, predominantly L1), J (11%, predominantly J2), and F\* (10%).

In addition to haplotypes H1, in South India we also find the Sickle Cell gene (Winters, 2010e) and African 9-bp deletion (Winters, 2010d). Watkins *et al.*, (2008) found the 9bp motif among four Indian tribal populations: Irula, Yanadi, Siddi and Maria Gond (Winters, 2010e).

**Figure 12: Ancient DNA Frequencies European Cultures**

Culture	mtDNA		Y- Chromosome	
	H	U5	R1a	R1b
Yamna	21%	13%	0%	91.50%
Corded				
Ware	21%	13%	71%	11.50%
German				
Bell Beaker	25%	14%	0%	100%

The phylogenetic structure of the Dawoodi Bohra Muslims of Tamil Nadu, India includes African mtDNA and Y-chromosome genes. The Dawodi Bohra carry the mtDNA M1 and Loa2a. The African Y-chromosomes found among the Dawoodi Bohra was 20% haplotype H and 2% E1b1b1a.

This evidence makes it clear that many of the so-called Eurasian clades were in Lower Egypt, before the Greco-Romans, Turks and etc., ruled Egypt. And as a result, Y-Chromosomes R.J, and G; and mtDNA

## **Research Article**

U,M,T, J and N clades were Kushite lineages. This evidence makes it clear that the Kushites took R1a and R1b to Europe. Using samples from the aDNA literature allows us to determine the frequencies of mtDNA and Y-Chromosome clades carried by the ancient Europeans ( Haak *et al.*, 2015; Haber *et al.*,2016; Kivisild, 2017; Mathieson *et al.* 2015, 2017 ;Olalde *et al.*,2017) (See Figure 12).

### **Cattle Domestication**

Agro-Pastoral Kushites cultivated crops and herded cattle. Elements of the Agro-Pastoral members of the Bell Beaker and Corded Ware complexes appear first in the African Sahara. Here we see rock engravings of cattle herders and hunters using similar bow and arrows. The Yamnaya archers' wrist-guard and bows may have had their origin in the Sahara where we see similar wrist-guards (Quellec, 2011 ).

The Niger-Congo speakers or Kushites formerly lived in the highland regions of the Fezzan and Hoggar until after 4000 BC. Originally hunter-gatherers the Kushites developed an agro-pastoral economy which included the cultivation of millet, and domestication of cattle (and sheep).

As early as 15,000 years ago cattle were domesticated in Kenya. In the Sahara-Nile complex, people domesticated many animals including the pack ass, and a small screw horned goat which was common from Algeria to Nubia.

The zebu or humped cattle are found in many parts of Africa. We find rock art depicting humped cattle dating back to 7000 BP. The oldest faunal remains of the *Bos Indicus* come from Kenya, and date to the first millennium B.C.

The recent evidence that *Bos Indicus* , humped cattle, may have originated in East Africa suggest that this type of cattle may have first been situated in Africa, and then taken to Asia by the Proto-Saharans. This view is supported by the fact that the advent of the *Bos Indicus*, cattle in Egypt corresponds to the migration of the C-Group people into the Nile Valley.

The C-Group people came from the Fertile African Crescent. Pastoralism was the first form of food production developed by post Paleolithic groups in the Sahara.

In the western Saharan sites such as Erg In-Sakane region, and the Taoudenni basin of northern Mali, attest to cattle husbandry between 6000 and 5000 B.P. Cattle pastoral people began to settle Dar Tichitt and Karkarchinkat between 5000 and 3500 B.P.

At Nabta Playa the people herded cattle and cultivated crops. The Kushites cultivated pennisetum millet at Nabta Playa (c. 7950 BC ) and probably herded cattle (Miller, *et al.* 2010; Mitchell,2013).

During the Ounanian period, due to abundant fertility in the Sahara , many people herded cattle. Nabta Playa was located on the shoreline of a lake 11,000 years ago.

A center of cattle worship was the Kiseiba -Nabta region in Middle Africa. At Nabta archaeologists have found the oldest megalithic site dating to 6000-6500 BC, which served as both a temple and calendar. This site was found by J. McKim Malville of the University of Colorado at Boulder and Fred Wendorf of Southern Methodist University.

### **Millet collection/cultivation**

The Kushites introduced the agro-pastoral tradition to Europe and Anatolia. The Kushites took with them their cattle and Pennisetum millet.

Many of the Niger-Congo and Dravidian speaking Kushites carried R1b and R1a clades. The millet cultivated by the European farmers had to come from Africa, because millet was not cultivated in Central Asia until after it had been established in Anatolia and Europe.

The major grain exploited by Kushites were rice ,the yam and Pennisetum millet . The principal domesticate in the southern Sahara was bulrush millet.

Archaeologists have found charred millet remains at Nabta Playa (c.7950 BC). Millet impressions have been found on Mande ceramics from both Karkarchinkat in the Tilemsi Valley of Mali, and Dar Tichitt in Mauritania dating between 4000 and 3000 BP (McIntosh and McIntosh,1983; Winters,1986).

The earliest date for millet cultivation is not Dadiwan China (c.5000BC), it is Nabta Playa (c.7950 BC).It would appear that millet came to Europe with the CHG, and EF populations. Researchers have been troubled by the fact that although millet collecting began at Sokoltsy, Ukraine (c.7440 BC) (Hunt *et al.*,

### **Research Article**

2008) with the CHG, there is no evidence of millet cultivation in Central Asia until the end of 3rd millennium BC (Hunt et al, 2008).

The presence of millet at Sokoltsy, indicates that millet cultivation in Europe, did not come from China or Central Asia. The early date of millet cultivation in Ukraine indicates that the cultivators of millet in Europe came from Africa.

The cultivation of millet at Nabta Playa, four hundred years before its cultivation at Sokoltsy indicates that Africans carrying R1 had left Nabta Playa and began cultivating millet in Eastern Europe. This would explain the presence of R1b1 in Italy and Samara among the CHG (Haak et al, 2015; Kivisild, 2017).

Cultivation of Pennisetum millet moved from East to West across Europe (Miller et al, 2010). The earliest millet is found impressed on pottery at the Sokoltsy 2 Ukraine site, dating to around 6300 BC (Hunt et al, 2008). This indicates that European hunter-gatherers were collecting millet after the Kushites were collecting millets in Africa at Nabta.

There is an absence of millet cultivation in Central Asia prior to the discovery of millet in the mid-2nd millennium BC, at Begash, Kazakhstan (2300-2100BC). Millet has been found at Tahirbaj Tepe, this indicates the first evidence of the cultivation of millet in Anatolia and Europe. Motuzaite-Matuzeviciute et al., (2013) has argued that cultivation of broomcorn millet did not become widespread in the Caucasus, Iran and Syria until during the Bronze Age. Millets were cultivated at Shortugai, Afghanistan, and Ojakly, Gonur in the Murghab delta. The Anatolian sites include Gordion, Haftavan and Kilise (Miller et al, 2010).

Kushites also took millet to India (Winters, 2008). There has been considerable debate concerning the transport of African millets to India (Winters, 1980, 2008). Weber (1998) believes that African millets may have come to India by way of Arabia. Wigboldus (1996) on the other hand argues that African millets may have arrived from Africa via the Indian Ocean in Harappan times (Winters, 1980, 2008).

Both of these theories involve the transport of African millets from a country bordering on the Indian Ocean. Yet, Weber (1998) and Wigboldus (1996) were surprised to discover that African millets and bicolor sorghum, did not reach many East African countries until millennia after they had been exploited as a major subsistence crop at Harappan and Gujarat sites (Winters, 1980).

This failure to correlate the archaeological evidence of African millets in countries bordering on the Indian Ocean, and the antiquity of African millets in Africa, Anatolia and India suggest that African millets such as Pennisetum and Sorghum must have come to India from another part of Africa. That place from whence they came had to have been Middle Africa, given the antiquity of millet collection at Nabta Playa.

The Neolithic British farmers were genetically similar to Neolithic Iberians farmers dating between 3900–1200 BCE (Lahovary, 1963; MacWhite, 1947; Olade et al., 2017). The British farmers were replaced by farmers of the Beaker culture (Lahovary, 1963). Eighty-four percent of the Beaker Bell Steppe migrants carried R1b (Olade et al, 2017).

One of the principal groups to use millet in Africa are the Northern Mande speaking people (Winters, 1986). The Northern Mande speakers are divided into the Soninke and Malinke-Bambara groups. The founders of the Dhar Tichitt site where millet was cultivated in the 2nd millennium B.C., were northern Mande speakers.

To test this theory we compared Dravidian and Black African agricultural terms, especially Northern Mande (See: Figure 4). The linguistic evidence suggests that the Proto-Dravidians belonged to an ancient sedentary culture which existed in Saharan Africa. We will call the ancestor of this group Paleo-Dravidians.

The Dravidian terms for millet are listed in the Dravidian Etymological Dictionary at 2359, 4300 and 2671. A cursory review of the linguistic examples provided below from the Dravidian, Mande and Wolof

## Research Article

languages show a close relationship between these languages. These terms are outlined below in Figure 13.

Dravidian and African Terms for Millet					
Kol	sonna	---	---	----	
Wolof (AF.)	sunā	---	----	---	
Malinke (AF)	sunā	bara, бага	de-n, doro	koro	
Tamil	connal	varaga	tinai	kural	
Malayalam	colam	varaku	tina	---	
Kannanda	---	baraga, baragu	tene	korale, korle	
	*sona	*baraga	*tenä	*kora	

**Figure 13: Dravidian and African Terms for Millet**

It is clear that the Dravidian and African terms for millet are very similar (Winters, 2008b). The Proto-Dravidian terms \*baraga and \*tena have little if any affinity to the African terms for millet (Winters, 1999, 1999b, 2000).

The Kol term for millet 'sonna', is very similar to the terms for millet used by the Wolof 'sunā' (a West Atlantic Language), and Mande 'sunā' (a Mande language). The agreement of these terms in sound structure suggest that these terms may be related.

The sound change of the initial /s/ in the African languages, to the /c/ in Tamil and Malayalam is consistent with the cognate Tamil and Malayalam terms compared by Aranavan (1979, 1980;) and Winters (2008b). Moreover, the difference in the Kol term 'soona', which does retain the complete African form indicates that the development in Tamil and Malayalam of c < s, was a natural evolutionary development in some South Dravidian languages. Moreover, you will also find a similar pattern for other Malinke and Dravidian cognates, e.g., buy: Malinke 'sa, Tamil cel; and road: Malinke 'sila', Tamil 'caalai'.

The sound change of the initial /s/ in the African languages, to the /c/ in Tamil and Malayalam is consistent with the cognate Tamil and Malayalam terms compared by Aranavan (1979, 1980;) and Winters (1981, 1994). Moreover, the difference in the Kol term 'soona', which does retain the complete African form indicates that the development in Tamil and Malayalam of c < s, was a natural evolutionary development in some South Dravidian languages. Moreover, you will also find a similar pattern for other Malinke and Dravidian cognates, e.g., buy: Malinke 'sa, Tamil cel; and road: Malinke 'sila', Tamil 'caalai'.

## Ceramic Traditions

The Kushites used three types of pottery 1) Wavy Line, 2) Dotted Wavy Line and 3) Red-and-Black pottery (BRW). Pottery types 1 and 2 are analogous to European Bell Beaker and Corded ware.

The BRW industry diffused from Nubia, across West Asia into Rajasthan, and thence to East Central and South India. Singh (1992) made it clear that he believes that the BRW radiated from Nubia through Mesopotamia and Iran southward into India.



## Research Article

BRW is found at the lowest levels of Harappa and Lothal dating to 2400BC. T.B. Nayar (1977) proved that the BRW of Harappa has affinities to predynastic Egyptian and West Asian pottery dating to the same time period.

After 1700 BC, with the end of the Harappan civilization BRW spread southward into the Chalcolithic culture of Malwa and Central India down to Northern Deccan and eastward into the Gangetic Basin.

As the Sahara and Sahel became more arid the Kushites began to migrate into Eurasia and Europe. Using boats the Kushites moved down ancient waterways many now dried up, to established new towns in Asia and Europe after 3500 BC.

### Discussion

According to Sergent (1992), the Dravidian populations are not autochthonous to India, they are of African origin. The archaeological evidence also supports an African origin for the Dravidian speaking people (Lal, 1963; Winters, 2007,2008).

Researchers have conclusively proven that the Dravidians are related to the Niger-Congo speaking group and they originally lived in Nubia (Lal,1963). The Dravidians and C-Group people of Nubia used 1) a common BRW (Lal,1963); 2) a common burial complex incorporating megaliths and circular rock enclosures (Lal,1963); and 3) a common type of rock cut sepulcher (Lal,1963) and writing system (Winters, 2007,2008).

The linguistic and anthropological data make it clear that the Dravidian speaking people were part of the C-Group people who formed the backbone of the Niger-Congo speakers. It indicates that the Dravidians took their red-and-black pottery with them from Africa to India, and the cultivation of millet. The evidence makes it clear that the genetic evidence indicating a Holocene migration to India for the Dravidian speaking people is wrong. The Dravidian people given the evidence for the first cultivation of millet and red-and-black pottery is firmly dated and put these cultural elements in the Neolithic. The evidence makes it clear that genetic evidence cannot be used to effectively document historic population movements.

The Dravidian and Mande speakers began to migrate out of Africa by 3000BC. They were part of the C-Group (Lal, 1963, Winters, 2014). They first settled in Iran and from here expanded into Central Asia, Europe and the Indus Valley (Winters,2018).

The Niger-Congo speakers or Kushites formerly lived in the highland regions of the Fezzan and Hoggar until after 4000 BC. The ancestors of the Kushites were the Ounanians who spread the Ounan-Harfian toolkit, pottery and arrows from throughout North Africa, into Iberia and the Levant. Originally hunter-gatherers the Proto-Niger- Congo people developed an agro-pastoral economy which included the cultivation of millet, and domestication of cattle (and sheep). It was these Kushites who introduced mtDNA U6, M1, T2, X and K; and Y-Chromosome R1b into Eurasian from their African homeland in the Sahel-Sahara.

The Hattic speaking people were members of the Kushite tribe called Tehenu. They were probably called *Hati* ( pl. *Hatiu*), by the Egyptians. The Hattic name for themselves: Kashka, *h3st* or Kushite Nation. The Hattic people probably carried Rb1.

The language of the Hittites was more than likely a *lingua franca*, with Hattic, at its base. In Western Anatolia many languages were spoken including Hattic, Palaic, Luwian and Hurrian, the nationalities there used *Nesa* as a *lingua franca*. For example, the king of Arzawa, asked the Egyptians in the *Amarna Letters*, to write them back in *Nesumnili* rather than Egyptian (Singer, 1981).

Steiner (1981) notes that “In the complex linguistic situation of Central Anatolia in the 2nd Millennium B.C., with at least three, but probably more different languages being spoken within the same area there must have been the need for a language of communication or *lingua franca* whenever commercial transaction or political enterprises were undertaken on a larger scale” (Singer, 1981). This led Steiner (1981) to conclude that “moreover the structure of Hittite easily allowed one to integrate not only proper names, but also nouns of other languages into the morphological system. Indeed, it is a well known fact the vocabulary of Hittite is strongly interspersed with lexemes from other languages,

### **Research Article**

which is a phenomenon typical of a “lingua franca”. This supports the view that the Anatolians were not predominately Indo-European speakers. The relationship between the Dravidian languages and the Kushite languages spoken in Anatolia explains the presence of the Y-Chromosome R1a clade in this area in ancient times.

Hattians lived in Anatolia. They worshipped Kasku and Kusuh. They were especially prominent in the Pontic mountains. Their sister nation in the Halys Basin were the Kaska tribes. The Kaska and Hattians share the same names for gods, along with personal and place-names. The Kaska had a strong empire which was never defeated by the Hittites.

The Kushites spread cultivation of Pennisetum millet and cattle herding into Anatolia, South Asia and Europe. As cattle herding Kushites frequently moved from place to place millet was an ideal domesticate. Millet was an especially favorite crop for the mobile Kushites because the grains are 1) a high yield per plant; 2) millet is drought tolerant and can be grown in various terrains; 3) millet has a short growing season so pastoralists could grow and harvest their crops in time to move their camp(s); and 4) the panicum millet has shallow roots so Kushite farmers could cultivate the crop with a hoe (Miller *et al.*, 2010).

Ounianians crossed the Straits of Gibraltar and settled Iberia. Here they met Iberian hunter-gatherers. Between 3200-2900 BC, African culture and people began to migrate into Iberia and introduced megaliths and the Bell Beaker culture (Lahovary, 1963). Spanish researchers accepted the reality that the Iberia Peninsula owed the major parts of Neolithic Iberia to African immigrants (Lahovary, 1963; MacWhite, 1947; Winters, 2017b).

MacWhite (1947) and Olalde *et al.*, (2017) claims there was a close relationship between Iberia and Britain. These researchers admit that Portugal and Brittany were settled by Megalithic Africans who founded respectively the Mugem and Teviec sepultures (MacWhite, 1947).

Iñigo Olalde *et al.*, (2017) discuss the spread of Bell Beaker culture across Europe 2.7 kya. These researchers found limited genetic affinity between individuals from Iberia and central Europeans. Iñigo Olalde *et al.*, (2017) concludes that migration probably played an insignificant mechanism in the spread of R1 within the two areas.

The African Sahara and Morocco was a major source for the Bell Beaker and Corded Ware cultural complex. The Proto-Beaker pottery dates back to 4500 BC in the Sahara .

Daugas *et al.*, (1989) provides a number of radio carbon dates for the Bell Beaker complex in North Africa. We find Beaker Bell ware dating to 3700 BC in Morocco. By 2700 BC we see the expansion of Beaker complex into Iberia (Daugas, 1989). The Iberian Bell Beaker complex is associated with the “Maritime tradition” (Mathieson *et al.* 2015, 2017; Turek, 2012).

There are numerous Bell Beaker sites in the Sahara and Morocco. A center of the Moroccan Beaker complex ceramics and arrowheads come from Hassi Ouenzga and in the cave of Ifri Ouberrid . Artifacts found at these sites are similar to Iberian Beaker complex forms ( Mikdad, 1998). The interesting fact about the discovery of these artifacts is that they were widespread across the Middle Atlas mountains at sites such as El-Kiffen, Skhirat – de Rouazi, Kehf, That el Gher and Ifri Ouberrid (Guilaine, 1976; Mikdad, 1998; Nekkal and Mikdad, 2014). This finding matches Turek (2012); which explains the spread of typically beaker style stamped decoration Bell Beaker culture pottery from Morocco into Iberia, and thence the rest of Europe.

Toomas Kivisild and Mathieson *et al.*, (2017) , provides a detailed discussion of R1 in prehistoric Europe. One of the most interesting finding was the presence of V88 in ancient Europe (Kivisild, 2017; Mathieson, 2015; Olalde *et al.*, 2017). It is also interesting to note that the European Agro-Pastoral populations associated with Bell Beaker and Yamnaya carry the genomes associated with Africans recorded in 2010 as illustrated in Figure 1 and Table 1.

## Research Article

Table 1: Shared African and Eurasian R1b Clades									
Nations and Populations		R1b M345	R1b1 L-278	R1b1a R-L754	R1b1a1a2	R1b1a2	R1b1b2	R1b1b2a1	Source
Akele			0.02						Berniell-Lee et al, 2009
Baka			0.03						Berniell-Lee et al, 2009
Bakola			0.045						Berniell-Lee et al, 2009
Benga			0.041						Berniell-Lee et al, 2009
Boni		4.8							Hirbo, 2011
Burji		4.3							Hirbo, 2011
Cabinda		9.5							Hirbo, 2011
Dama			0.21						Berniell-Lee et al, 2009
Fang			0.2						Berniell-Lee et al, 2009
Fali						20			Haber et al, 2016
Fulbe						11.1			Haber et al, 2016
Fante		6							Hirbo, 2011
Equatorial Guinea							0.096		Gonzalez et al, 2013
Gabon				0.086					Gonzalez et al, 2013
Guinea-Bissau							2.2		Carvalho et al, 2011
Hausa		40.63							Hirbo, 2011
Herero		16				8			Hirbo, 2011 ; Haber et al, 2016
Kola			0.056						Berniell-Lee et al, 2009
Kanuri		36.7				14.3			Hirbo, 2011 ; Haber et al, 2016
Laal				23					
Mada						82.4			Haber et al, 2016
Mafa						87.5			Haber et al, 2016
Mandara		37.5							Hirbo, 2011
Moundang						66.78			Haber et al, 2016
N'Djamama				15					
Ndumu		0.11							Berniell-Lee et al, 2009
Ngambi						9.1			Haber et al, 2016
Nzebi			0.035						Berniell-Lee et al, 2009
Obamba			0.11						Berniell-Lee et al, 2009
Orungu			0.045						Berniell-Lee et al, 2009
Ouideme						95.5			Haber et al, 2016
Punu			0.12						Berniell-Lee et al, 2009
Rangi		3.1							Hirbo et al, 2011
Shake			0.023						Berniell-Lee et al, 2009
Sara				20					
Tali						9.1			Haber et al, 2016
Teke			0.104						Berniell-Lee et al, 2009
Yoruba						4.8			
Khoisan							2.2		Wood et al, 2005
Khoisan							6		Hirbo et al, 2011
Khomani San								10	Henn et al, 2011
<b>Europe</b>									
<b>Individual</b>	<b>Country</b>	<b>Haplogroup</b>							
14916	Serbia	R1b1a							Mathieson et al, 2017
14081	Romania	R1b1a							Mathieson et al, 2017
15235	Serbia	R1b1a							Mathieson et al, 2017
15237	Serbia	R1b1a							Mathieson et al, 2017
15240	Serbia	R1b1a							Mathieson et al, 2017
S5772.E1.L1	Serbia	R1b1a							Mathieson et al, 2017
15232	Serbia	R1b1a							Mathieson et al, 2017
15232	Serbia	R1b1a							Mathieson et al, 2017
14432	Latvia	R1b1a1a							Mathieson et al, 2017
14434	Latvia	R1b1a1a							Mathieson et al, 2017
14439	Latvia	R1b1a1a							Mathieson et al, 2017
14626	Latvia	R1b1a1a							Mathieson et al, 2017
14628	Latvia	R1b1a1a							Mathieson et al, 2017
14630	Latvia	R1b1a1a							Mathieson et al, 2017
14436	Latvia	R1b1a1a							Mathieson et al, 2017
14627	Latvia	R1b1a1a							Mathieson et al, 2017
10122	Samara	R1b1a							Mathieson et al, 2017
I1734	Ukraine	R1b1a							Mathieson et al, 2017
I3718	Ukraine	R1b1a							Mathieson et al, 2017
I4114	Ukraine	R1b1a							Mathieson et al, 2017
S5890.E1.L1	Ukraine	R1b1a							Mathieson et al, 2017
S5892.E1.L1	Ukraine	R1b1a							Mathieson et al, 2017
S5893.E1.L1	Ukraine	R1b1							Mathieson et al, 2017
Vilabruna	Italy	R1b1a							

## Research Article

This makes it clear that the V88 sub-clades R-L278 and R-L754. , had relatives in Early Neolithic samples from across a wide geographic area from Iberia, Germany to Samara (Kivisild, 2017; Olalde et al,2017; Winters,2017b). This would place carriers of relatives of V88 among the Yamnaya and Bell Beaker people. Given the wide distribution of M269 in Africa, the carriers of this haplogroup in Neolithic Europe were probably also Africans since the Bell Beaker people/culture originated in Morocco as noted by Turek (2012).

## CONCLUSION

In conclusion, Millet cultivation , and herding cattle was spread across Europe by Kushite Niger-Congo and Dravidian speakers this explains the spread of R1a and R1b by the agro-pastoral populations associated with the late Yamnaya periods. Sub-Saharan Africans had a long history in the Levant and Europe prior to the raise of the Caucasus hunter gathers (CHG) and European farmers (EF) populations( Holliday,2000; Jones et al, 2015) . In Table 1, we provide a comparison of Eurasians and African genomes ( Coia et al, 2005;Cruciani et al, 2010; Haak *et al.*, 2015; Haber et al,2016; Henn *et al.*, 2011; Kivisild, 2017; Mathieson et 2015, 2017 ;Olalde et al,2017; Winters, 2016; Wood et al, 2005 ). The Niger-Congo speaking Africans and Dravidian speakers carried R1b and R1a first into Anatolia (Winters, 2010,2017b), and thence Europe. We can see from Table 1, that Africans carry R1b1 which is associated with the CHG, and R1b1a (Winters, 2017b) is related to the EF. Up until 2010, the R1b1a clade, was recognized as V88 ( Cruciani et al,2010).

***As a result, the "Eurasian" admixture, found among the West Africans in East, Central, West and South Africa is in reality African genomes passed onto the Eurasians when the Kushites migrated into Eurasia 4kya from Africa (Winters, 2010,2010b, 2017b).*** Other "Eurasian" genomes of African origin were deposited in Eurasia first by African hunter-gatherers in Iberia carrying Y-Chromosome R1 clades eastward into Eastern Europe and the Steppes (Winters,2017b), as indicated by the aDNA found in Vilabruna man (R1b1a) and Samara (R1b1) that are relatives of V88 (Kivisild,2017; Winters, 2017b).

Kivisild (2017) maintains that the CHG R1 clades: R1b1 and R1b1a are distant relatives to V88. In Table 1, we compare African and Eurasian R1 lineages ( Coia *et al.*, 2005; Cruciani *et al.*, 2010; Haak *et al.*, 2015; Haber et al,2016; Henn *et al.*, 2011; Kivisild, 2017; Mathieson et 2015, 2017 ;Olalde et al,2017; Winters, 2016; Wood *et al.*, 2005 ). As illustrated in Table 1, the global nature of R-L278 and R-L754 across Africa, east to west and north to south among populations that fail to carry the R1 clades, but lack Neanderthal ancestry does not support the conclusions of Haber *et al.*, (2016) that there was ever a backflow from Eurasia into Chad of Eurasian ancestry, once, let alone, twice in the past 10ky.

The findings of Haber *et al.*, (2016) are unfounded and cannot be confirmed because, there is no archaeological evidence that Eurasians made their way back to West and Central Africa. Lacking archaeological evidence of Eurasians in West and Central Africa, the so-called Eurasian admixture among the varied African populations carrying the R1 lineage reflects the fact that the Eurasian Y-Chromosome R1, is really of West and Central African origin, not Eurasian.

The archaeological evidence does make it clear there were two migrations into Western Eurasia by Africans. The first migration to Eurasia from Africa, was by foragers carrying R1b1 and R1b1a, who first settled Iberia and Italy and migrated eastward with millet.

The second migration of Africans came from the East. These Africans were Kushites who first settled in Anatolia and spread eastward into India, with millet, and into the Steppe region, and from there westward into Iberia, and eventually Britain. The Kushites from Africa that settled Eurasia, were Niger-Congo and Nilo-Saharan speakers who not only carried R1b1 and R1b1a, but also R1-M269. The R1-M269 clade has the highest frequency among the early European Agro-pastoralists.

This archaeological evidence further indicates that the Bell Beaker and Corded ware cultures (were probably descendant from the Wavy line and Dotted pattern pottery of the African Neolithic) and Bell Beaker pottery from Morocco and the Saharan region spread across Europe with the EF agro-pastoral civilization .



## **Research Article**

Finally, Cattle herding and millet cultivation were all introduced to Eurasia by African and Dravidian speakers. Since, these culture elements are all associated with the Niger-Congo- Dravidian and Nilo-Saharan carriers of R1a and R1b, these Y-Chromosome clades were introduced to Eurasia by Africans. This is the only way we can explain the “dilution” of Neanderthal DNA in the Near East, as maintained by Haber *et al.*, (2016).

## **REFERENCES**

- Anselin A (1982).** Le Mythe d'Europe de l'Indus à la Crète.
- Anselin A (1989).** Le Lecon Dravidienne", Carbet Revue Martinique de Sciences Humaines, no.9:7-58
- Aravanan K P.** Notable negroid elements in Dravidian India, Journal of Tamil Studies, 1980, pp.20-45.
- Aravanan K P (1976).** Physical and cultural similarities between Dravidians and Africans. *Journal of Tamil Studies* **10** 23-27.
- Aravanan K P (1979).** Dravidians and Africans, Madras.
- Barnabas S, Shouche Y and Suresh CG (2005).** High resolution mtDNA studies of the Indian population: Implications for Paleolithic settlement of the Indian Subcontinent, *Annals of Human Genetics*, 1-17.
- Berniell-Lee G, Calafell F, Bosch E, Heyer E, Sica L, Mouguiama-Daouda P, van der Veen L, Hombert J-M, Quintana-Murci L and Comas D (2009).** Genetic and Demographic Implications of the Bantu Expansion: Insights from Human Paternal Lineages. *Molecular Biology and Evolution* **26**(7) 1581-1589 doi:10.1093/molbev/msp069
- Bork, Ferdinand (1909).** Die Mitanni Sprache, Mitteilungen der Vorderasiatische Gesellschaft, Parts ! and 2.
- Brown, George William.** (1930) The Possibility of a Connection between Mitanni and the Dravidian Languages , Journal of the American Oriental Society, Vol. 50 (1930), pp. 273-305
- Gupta, A.** How old is the Rig Veda {Part 2}. Retrieved: 14 January 2004 <http://www.sawf.org/newedit/edi40205200/musings.asp>
- Carvalho M. , Brito P, Bento AM et al., (2011).** Paternal and maternal lineages in Guinea-Bissau population. *Forensic Science International Genetics* , 5: 114–116.
- Coia V, Destro-Bisol G, Verginelli F, Battaggia C, Boschi I, Cruciani F, Spedini G, Comas D and Calafell F (2005).** Brief communication: mtDNA variation in North Cameroon: lack of Asian lineages and implications for back migration from Asia to sub-Saharan Africa. *American Journal of Physical Anthropology* **128**(3) 678-81. Available: <http://www3.interscience.wiley.com/cgi-bin/fulltext/110495269/PDFSTART>
- Cruciani F, Santolamazza P, Shen P, Macaulay V, Moral P and Olckers A (2002).** A Back Migration from Asiatic Sub-Saharan Africa is supported by High-Resolution Analysis of Human Y-chromosome Haplotypes. *American Journal of Human Genetics* **70** 1197-1214.
- Cruciani F, Trombetta B, Sellitto D, Massaia A, Destro-Bisol G, Watson E, Beraud Colomb E, Dugoujon JM, Moral P and Scozzari R (2010).** Human Y chromosome haplogroup R-V88: a paternal genetic record of early mid Holocene trans-Saharan connections and the spread of Chadic languages. *European Journal of Human Genetics* **18** 800–807. doi:10.1038/ejhg.2009.231
- Daugas JP, Raynal J-P, Ballouche A, Occhietti S, Pichet P, Evin J, Texier J-P and Debenath A (1989).** *Le Néolithique Nord-Atlantique Du Maroc: Premier Essai De Chronologie Par Le Radiocarbon*, (C.R. Academy of Sciences, Paris, 308, France), Serie II, 681-687.
- Domínguez EF (2005).** Polimorfismos de DNA mitocondrial en poblaciones antiguas de la cuenca mediterránea. PhD Thesis, Universitat de Barcelona, Departament de Biologia Animal.
- Drake N A, Roger M. Blench, Simon J. Armitage, Charlie S. Bristow, and Kevin H. White. (2010).** Ancient watercourses and biogeography of the Sahara explain the peopling of the desert, *Proceedings of the National Academy of Science*. 2011 108 (2) 458-462; published ahead of print December 27, doi:10.1073/pnas.1012231108



## Research Article

- Diakonoff, I M and PL Kohl (1990).** Early Antiquity. Chicago: University of Chicago Press.
- El Mosallamy AHS (1986).** Libyco-Berber relations with ancient Egypt: The Tehenu in Egyptian records. In L. Borchardt, *Das Grabdenkmal des Königs Sahure* 51-68, 2, Table 1.
- Fregel R, et al., (2017).** Neolithization of North Africa involved the migration of people from both the Levant and Europe. bioRxiv 191569; doi: <https://doi.org/10.1101/191569>
- Gonzalez et al., (2012).** The genetic landscape of Equatorial Guinea and the origin and migration routes of the Y chromosome haplogroup R-V88. *European Journal of Human Genetics* 21(3)324-331. Available: doi: 10.1038/ejhg.2012.167.
- Guilaine J (1976).** *La Civilisation Du Vase Campaniforme Dans Le Midi De La France, Actes Du Symposium Sur La Civilisation Des Gobelets Campaniformes*, (Germany, Oberried, Bussum-Haarlem) 351-370.
- Gupta, A (No Date).** How old is the Rig Veda (Part2). Retrieved: 14 January 2004 <http://www.sawf.org/newedit/edi40205200/musings.asp>
- Haak W, Lazaridis I, Patterson N, Rohland N, Mallick S, Llamas B, Brandt G et al., (2015).** Massive migration from the steppe was a source for Indo-European languages in Europe. *Nature* 522 207–211. doi:10.1038/nature14317
- Haber M., Massimo Mezzavilla, Anders Bergström, Javier Prado-Martinez, Pille Hallast, Riyadh Saif-Ali et al., (2016).** Chad Genetic Diversity Reveals an African History Marked by Multiple Holocene Eurasian Migrations, *The American Journal of Human Genetics*, Volume 99, Issue 6, 1316-1324, ISSN 0002-9297, <http://dx.doi.org/10.1016/j.ajhg.2016.10.012>
- Hernández CL, Soares P, Dugoujon JM, Novelletto A et al., (2015).** Early Holocenec and Historic mtDNA African Signatures in the Iberian Peninsula: The Andalusian Region as a Paradigm. *PLoS ONE* 10(10). Available: <https://www.ncbi.nlm.nih.gov/pubmed/26509580>
- Holiday T (2000).** Evolution at the Crossroads: Modern Human Emergence in Western Asia. *American Anthropologist* 102(1) 54-68.
- Homburger L. 1948.** Elements Dravidiens en peul. *Journal Societe de Africa*, 18(2): 135-143.
- Homburger L 1957.** Les Langues Negro-Africaines et les peuples qui les parlent. Paris: Payot.
- Hunt H.V et al., (2008)** Millets across Eurasia: chronology and context of early records of the genera *Panicum* and *Setaria* from archaeological sites in the Old World, *Vegetation History and Archaeobotany*, vol. 17, Suppl 1, S5–S18.
- Jelinek J (1985).** "Tillizahren, the Key Site of the Fezzanese Rock Art". *Anthropologie (Brno)*, 23(3):223-275.
- Jones ER, Gonzalez-Fortes G, Connell S, Siska V, Eriksson A, Martiniano R and Bradley DG (2015).** Upper Palaeolithic genomes reveal deep roots of modern Eurasians. *Nature Communications* 6 8912. <http://doi.org/10.1038/ncomms9912>
- Kefi R., Meriem Hechmi, Chokri Naouali, Haifa Jmel, Sana Hsouna, Eric Bouzaid, Sonia Abdelhak, Eliane Beraud-Colomb & Alain Stevanovitch (2016).** On the origin of Iberomaurusians: new data based on ancient mitochondrial DNA and phylogenetic analysis of Afalou and Taforalt populations, *Mitochondrial DNA Part A*, 29:1, 147-157, DOI: 10.1080/24701394.2016.1258406
- Kılınç, Gülşah Merve et al., (2016).** The Demographic Development of the First Farmers in Anatolia *Current Biology* , Volume 26 , Issue 19 , 2659 – 2666
- Kivisild, Toomas, Katrin Kaldman, Mait Metspalu, Juri parik, Surinder Papiha (1999).** The Place of the Indian mtDNA Variants in the Global Network of Maternal Lineages and the Peopling of the Old World. In *Genomic Diversity*, (Ed.) R. Papiha Deka (pp.135-152). S.S. Kluwer/Plenum Publishers. <http://evolutions.ut.ee/publications/Kivisild1999b.pdf>
- Kivisild T (2017).** The study of human Y chromosome variation through ancient DNA. *Human Genetics* 136(5) 529–546.
- Lahovary N (1963).** *Dravidian Origins and the West*. India, Madras: Longmans.

## Research Article

- Lal B B** (1963) "The Only Asian expedition in threatened Nubia: Work by an Indian Mission at Afyeh and Tumas", The Illustrated London Times , 20 April.
- Lazaridis I, Nadel D, Rollefson G, Merrett DC et al., (2015).** The genetic structure of the world's first farmers. *bioRxiv* doi: <https://doi.org/10.1101/059311>
- Le Quellec J-L (2011).** Arcs et bracelets d'archers au Sahara et en Égypte, Avec Une Nouvelle Proposition De Lecture Des "Nasses" Sahariennes. (CEMAf - Centre d'Etudes des Mondes Africains, Johannesburg, Africa). Available: <https://halshs.archives-ouvertes.fr/halshs-00696540/document>
- Levy T E, David AlonYorke M. RowanYorke M. Rowan (1997).** Egyptian-Canaanite Interaction at Nahal Tillah, Israel (ca. 4500-3000 B. C. E.): An Interim Report on the 1994-1995 Excavations.
- MacWhite E (1947).** Studios sobre las relaciones atlanticas de la peninsula hispanica en la edad del bronce. *Dissertationes Matritenses* 12.
- Metspalu M (2005).** Through the course of prehistory in India: Tracing the mtDNA Trail. Dissertation Biologicae Universitatis Tartnensis 114, Tartu University Press.
- Metspalu , Mait, Toomas Kivisild, Ene Metspalu, Jüri Parik, Georgi Hudjashov , Katrin Kaldma, Piia Serk, Monika Karmin, Doron M Behar, et al. (2004).** Most of the extant mtDNA boundaries in South and Southwest Asia were likely shaped during the initial settlement of Eurasia by anatomically modern humans. *BMC Genetics* 2004, 5:26. <http://www.biomedcentral.com/1471-2156/5/26>
- Mathieson I, Lazaridis I, Rohland N et al., (2015).** Genome-wide patterns of selection in 230 ancient Eurasians. *Nature* 528 499–503. doi:10.1038/nature16152
- Mathieson I, Roodenberg SA, Posth C et al., (2017).** *The Genomic History of Southeastern Europe*. Available: <http://biorxiv.org/content/early/2017/05/09/135616>
- McIntosh, S.K. and McIntosh R J (1983).** "Forgotten Tells of Mali". Expedition, 38 .
- Mitchell P , Paul Lane (Ed.), (2013).** The Oxford Handbook of African Archaeology. Oxford .
- Martinez L, et al., (2007).** Paleolithic Y-haplogroup heritage predominates in a Cretan highland plateau, *European Journal of Human Genetics*. <http://www.nature.com/ejhg/journal/v15/n4/full/5201769a.html>
- Mikdad A (1998).** *Étude Préliminaire Et Datation De Quelques Éléments Campaniformes Du Site De Kehf-el-Baroud, Maroc*, (AVA-Forschungen, Bd. 18, Mainz, Germany) 243-252.
- Miller N F , Robert N Spengler, Michael Frachetti (2010).** Millet cultivation across Eurasia: Origins, spread, and the influence of seasonal climate, *The Holocene* , Vol. 26 10:1566-1575
- Motuzaitė-Matuzevičiūtė G et al., (2013).** The early chronology of broomcorn millet (*Panicum miliaceum*) in Europe. *Antiquity* 87(338) 1073–1085.
- Müller J and van Willigen S (2001).** New radiocarbon evidence for European Bell Beakers and the consequences for the diffusion of the Bell Beaker phenomenon. In *Bell Beakers Today: Pottery, People, Culture, Symbols in Prehistoric Europe. Proceedings of the International colloquium, Riva del Garda Trento, Italy*, (edition Nicolis, F., 59–80).
- N'Diaye CT (1972)** The relationship between Dravidian languages and Wolof. Annamalai University Ph.D. Thesis.
- Nayar TB (1977).** The Problem of Dravidian Origins.
- Nekkal F and Mikdad A (2014).** Quelques données sur la découverte de céramiques campaniformes au Maroc [Some data on the discovery of Bell Beaker pottery in Morocco]. *International Journal of Innovation and Applied Studies* 8(2) 632-638.
- Olalde I, Brace S, Allentoft ME, Armit I, Kristiansen K et al., (2017).** The Beaker Phenomenon and the Genomic Transformation of Northwest Europe. *bioRxiv* vol doi: <https://doi.org/10.1101/135962>
- Pickrel J KI, Nick Patterson, Po-Ru Loh, Mark Lipson, Bonnie Berger, Mark Stoneking, Brigitte Pakendorf, and David Reich (2014).** Ancient west Eurasian ancestry in southern and eastern Africa, *Proceedings of the National Academy of Science*, 111 (7) 2632-2637; published ahead of print February 3, 2014, doi:10.1073/pnas.1313787111
- Potts T (1995).** Mesopotamia and the East. Oxford University Committee for Archaeology. *Monograph* 37

## Research Article

- Prieto-Martínez MP (2011).** Perceiving changes in the third millennium BC in Europe through pottery: Galicia, Brittany and Denmark as examples. In *Becoming European: The Transformation of Third Millennium Northern and Western Europe* (edition Prescott, C. & Glorstad, H., 30–47, (UK, Oxford: Oxbow Books).
- Ramana G V, Su B, Jin L, Singh L, Wang, N., Underhill, P. & Chakraborty, R. (2001)** Y-chromosome SNP haplotypes suggest evidence of gene flow among caste, tribe, and the migrant Siddi populations of Andhra Pradesh, South India. *Eur J Hum Genet* 9, 695 – 700. <http://archive.is/UINyk>
- Rosa A, Ornelas C, Jobling MA, Brehm A and Villems R (2007).** Y-chromosomal diversity in the population of Guinea-Bissau: A multiethnic perspective. *BMC Evolutionary Biology* 7 124.
- Sagy, H W F (1995)** Peoples of the Past: Babylonians. Norman: University of Oklahoma Press, 1995.
- Scheinfeldt LB, Soi S and Tishkoff SF (2010).** Working toward a synthesis of archaeological, linguistic, and genetic data for inferring African population history. *Proceeding National Academy of Science USA* 107(Supplement 2) 8931–8938.
- Sergent, Bernard (1992).** Genèse de L'Inde. Paris: Payot .
- Singh H N (1982).** History and archaeology of Black and Red ware. Vedic Books: Manchester
- Sharma S, Rai E, Sharma P, Jena M, Singh S, Darvishi K, Bhat AK, Bhanwer AJS, Tiwari PK & Bamezai NK (2009).** The Indian origin of paternal R1a1\* substantiates the autochthonous origin of Brahmins and the caste system. *J of Hum Genet*, 54: 47-55.
- Sengupta, Sanghamitra, Lev A. Zhivotovsky, Roy King, S. Q. Mehdi, Christopher A. Edmonds, Cheryl-Emiliane T. et al., (2006).** *American Journal of Human Genetics* 78 202-221. <http://www.journals.uchicago.edu/AJHG/journal/issues/v78n2/42812/42812.html?erFrom=3214269876962983094Guest>
- Schuenemann V. J. , Alexander Peltzer, Beatrix Welte (2017).** Ancient Egyptian mummy genomes suggest an increase of Sub-Saharan African ancestry in post-Roman periods. *Nature Communications* 8: 15694. <https://www.nature.com/articles/ncomms15694>
- Singer I (1981).** Hittites and Hattians in Anatolia at the beginning of the Second Millennium B.C., *Journal of Indo-European Studies*, 9 (1-2) (1981), pp.119-149.
- Singer I (2007).** WHO WERE THE KAŠKA? *Journal Phasis*, Vol 10, No 1-16 , Retrieved 9/8/2017 at <http://phasis.tsu.ge/index.php/phasis/article/view/154/html>
- Steiner, G. (1981).** The role of the Hittites in ancient Anatolia, *Journal of Indo-European Studies*, 9 (1-2) (1981), 119-149.
- Thangaraj, Kumarasamy, Gyaneshwer Chabey, Vijay Kumar Singh, Ayyasamy Vanniarajan, Ismail Thanseem, Alla G Reddy and Lalji Singh (2006).** *In situ* origin of deep rooting lineages of mitochondrial Macrohaplogroup 'M' in India. *BMC Genomics* 7 151. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1534032>
- Trivedi R, Sahoo S, Singh A, Bindu GH, Banerjee J, Tandon M, Gaikwad S, Rajkumar R, Sitalaximi T, Ashma R, Chainy GBN, & Kashyap VK. (2008).** Genetic imprints of pleistocene origin of Indian populations: A comprehensive Phylogeographic sketch of Indian Y-Chromosomes. *Int J Hum Genet*, 8(1-2): 97-118
- Turek J (2012).** Chapter 8 – Origin of the Bell Beaker phenomenon. The Moroccan connection, In: Fokkens, H. & F. Nicolis (edition) 2012: *Background to Beakers. Inquiries into Regional Cultural Backgrounds of the Bell Beaker Complex*, (Netherlands, Leiden: Sidestone Press). Available: [https://www.academia.edu/1988928/Turek\\_J.\\_2012\\_Chapter\\_8\\_-](https://www.academia.edu/1988928/Turek_J._2012_Chapter_8_-)
- Upadhyaya P & Upadhyaya S P (1979).** Les liens entre Kerala et l'Afrique tels qu'ils ressortent des survivances culturelles et linguistiques, *Bulletin de L'IFAN*, no.1, , pp.100-132.
- Upadhyaya P & Upadhyaya S P (1976).** Affinités ethno-linguistiques entre Dravidiens et les Negro-Africains, *Bull. de L'IFAN*, 1127-157.

## **Research Article**

- van de Loosdrecht M., Abdeljalil Bouzouggar, Louise Humphrey, Cosimo Posth, Nick Barton. (2018).** Pleistocene North African genomes link Near Eastern and sub-Saharan African human populations. PUBLISHED ONLINE 15 MAR 2018, DOI: 10.1126/science.aar8380
- Vernet R, Ott M, Tarrow L, Gallin A, Géoris-Creuseveau J (2007).** Excavation of the mound of FA 10 (Banc d'Arguin) and its contribution to the knowledge of the culture paleolithic Fom Arguin, northwestern Sahara (Translated from French) *J Afr Archaeol* 5:17–46.
- Watkins W, Thara R, Mowry B, Zhang Y, Witherspoon D, Tolpinrud W, ... Jorde, L. (2008).** Genetic variation in South Indian castes: evidence from Y-chromosome, mitochondrial, and autosomal polymorphisms. *BMC Genetics*, 9, 86. <http://doi.org/10.1186/1471-2156-9-86>
- Weber S A (1998).** Out of Africa: The initial impact of millets in South Asia. *Current Anthropology*, (1998) 39(2), 267-274.
- Wigboldus J S (1996).** Early presence of African millets near the Indian Ocean. In J. Reade, *The Indian Ocean* (pp.75-86), London: The British Museum, 1996.
- Winters C (1980).** The genetic unity of Dravidian and African languages and culture", *Proceedings of the First International Symposium on Asian Studies (PIISAS) 1979*, Hong Kong: Asian Research Service.
- Winters C (1985).** The Proto-Culture of the Dravidians, Manding and Sumerians, *Tamil Civilization*, 3 (1), 1-9.
- Winters C (1986).** The Migration Routes of the Proto-Mande". *The Mankind Quarterly*, 27(1):77-96.
- Winters C (1988).** Common African and Dravidian Place Name Elements. *Sou As Anth*, 9(1): 33-36.
- Winters C (1989).** Tamil, Sumerian, Manding and the Genetic Model. *Int J Dr Ling*, 18(1): 67-91.
- Winters C (1991).** "The Proto-Sahara". In *The Dravidian Encyclopaedia* (pp.553-556), Trivandrum: International School of Dravidian Linguistics. Volume 1.
- Winters C (1999).** ProtoDravidian terms for cattle. *International Journal of Dravidian Linguistics*, 28, 91-98.
- Winters C (1999b).** Proto-Dravidian terms for sheep and goats. *PILC Journal of Dravidian Studies*, 9 (2), 183-87.
- Winters C (2000).** Proto-Dravidian agricultural terms. *International Journal of Dravidian Linguistics*, 30 (1), 23-28.
- Winters C (2002).** Ancient Afocentric History and the Genetic Model. In *Egypt vs Greece*, Ed by M.K Asante and A. Mazama, Pp.121-164.
- Winters C (2006).** Can Parallel Mutation and neutral genome selection explain Eastern African M1 consensus HVS-1 motifs in Indian M haplogroup . <http://www.bioline.org.br/pdf?hg07022> Winters C. 2007. Did the Dravidian Speakers Originate in Africa? *BioEssays*, 27(5): 497-498.
- Winters C (2007b).** High Levels of Genetic Divergence across Indian Populations. *PloS Genetics*. Retrieved 4/8/2008 <http://www.plosgenetics>.
- Winters C (2008).** Origin and Spread of Dravidian Speakers. <http://ferris-pages.org/ISAR/krepublishers.pdf>
- Winters C (2008).** African millets taken to India by Dravidians. *Annals of Botany*, (2008) <https://academic.oup.com/aob/article/100/5/903/136060/Contrasting-Patterns-in-Crop-Domestication-and?searchresult=1#usercomments>
- Winters C (2010).** The Kushite Spread of haplogroup R1\*-M173 from Africa to Eurasia. *Current Research Journal of Biological Science* 2(5) 294-299. Available: <http://maxwellsci.com/print/crjbs/v2-294-299.pdf>
- Winters C (2010b).** A Sub-Saharan Origin of the Early European Farmers. Comment: Ancient DNA from European Early Neolithic Farmers Reveals Their Near Eastern Affinities, by Wolfgang Haak *et al.*, , *PLOS Biology*, November 9, 2010, <https://doi.org/10.1371/journal.pbio.1000536>
- Winters C (2010c).** The Fulani are not from the Middle East. *Proceedings of the National Academy of Sciences of the United States of America*. 107(34):E132. doi:10.1073/pnas.1008007107.



### Research Article

**Winters C (2010d).** Sickle Cell Anemia in Africa and India. [http://www.ispub.com/journal/the\\_internet\\_journal\\_of\\_hematology/volume\\_7\\_number\\_1\\_40/article/sickle-cell-anemia-in-india-and-africa.html](http://www.ispub.com/journal/the_internet_journal_of_hematology/volume_7_number_1_40/article/sickle-cell-anemia-in-india-and-africa.html)

**Winters C (2010e).** Y-Chromosome evidence of African Origin of Dravidian Agriculture. <http://www.academicjournals.org/ijgmb/PDF/pdf2010/Mar/Winters.pdf>

**Winters C (2011).** Possible African origin of Y-Chromosome R1-M173. *International Journal of Science and Nature* 2(4) 743-745. Available: [http://www.scienceandnature.org/IJSN\\_Vol2\(4\)D2011/IJSN-VOL2\(4\)-9.pdf](http://www.scienceandnature.org/IJSN_Vol2(4)D2011/IJSN-VOL2(4)-9.pdf).

**Winters C (2011b).** First European Farmers were not Eastern Europeans. *Webmed Central Human Genetics* 2(9). Available: [http://www.webmedcentral.com/article\\_view/2265](http://www.webmedcentral.com/article_view/2265)

**Winters C. (2012).** Origin of the Niger-Congo Speakers. *Webmed Central Genetics*, 3(3) WMC003149 doi: 10.9754/journal.wmc. 003149

**Winters C (2014).** Ancient History of the Tamils in Central Asia. Createspace.

**Winters C. (2014b).** Reader Comment, Ethio-Semitic People Took "Eurasian" Genes to South Arabia and the Levant: Hodgson JA, Mulligan CJ, Al-Meerri A, Raaum RL, Early Back-to-Africa Migration into the Horn of Africa. *PLoS Genet* 10(6): e1004393. <https://doi.org/10.1371/journal.pgen.1004393>

**Winters C (2016).** *The Phylogeography of Afro-Americans and Africans*, (Createspace, Amazon).

**Winters C (2017).** Did African Slaves Bring the Y-Chromosomes R1 Clades to the Americas? *International Journal of Innovative Research and Review* 5(2) 1-10. Available: <http://www.cibtech.org/J-Innovative-Research-Review/Publications/2017/VOL-5-NO-2/01-JIRR-001-JUNE-WINTERS-DID-CHROMOSOME.pdf>

**Winters C (2017b).** A GENETIC CHRONOLOGY OF AFRICAN Y-CHROMOSOMES R-V88 AND R-M269 IN AFRICA AND EURASIA . *Indian Journal of Fundamental and Applied Life Sciences*, 7(2) 24-37.

**Winters C (2017c).** A King's Seal? Was Pharaoh Apophis Originally King of the Mythical Kushites? <http://www.ancient-origins.net/history-famous-people/king-s-seal-was-pharaoh-apophis-originally-king-mythical-kushites-008430?nopaging=1>

**Wood ET, Stover DA, Ehret C, Destro-Bisol G, Spedini G, McLeod H, Louie L, Bamshad M, Strassmann BI, Soodyall H and Hammer MF (2005).** Contrasting patterns of Y-chromosome and mtDNA variation in Africa: evidence for sex-biased demographic processes. *European Journal of Human Genetics* 13 867-876.