

FROM SHULAVERI- SHOMU TO BELL BEAKER

*And they told everyone. We
are the ones that fled an
attack of serpents.*

Preface - Why the Shulaveri-Shomu were our R1B forefathers.

My take on it...

Chapter I -and then they came

Who the Shulaveri were and why they had to flee

Chapter II - The African Route

In the beginning it looked like the hardest and it turn out to be the most fun

Chapter III - Pumped out by the Sahara

Based on 5.9 kiloyear event there is no doubt people had to flee to Iberia

Chapter IV - The Oestrimni Civilization

Bell beaker had a name. It was the Oestrimni that the greek always called them.

SUPPLEMENTS START HERE

Suppl 1 - They, who Fled the serpents

It was so obvious. They told everyone what happened!

Suppl 2 - In Egypt, Trying to find some Peace

Little places and time ,Tel Tsaf, Merinde..... it was them.

Suppl 3 - Exodus to Iberia

If not in Tassili and Accacus, then no where else.

Bibliography (for all chapters and supplements)

PREFACE

Why the *Shulaveri-Shomu* were the R1b forefathers.

Just a while back, this subject would all but just bring a big yawn into me.

However,

Like a whole lot of people, I kept on reading about genomics and ancestry for DNA, autosomal DNA clustering, Y-DNA, MtDNA Haplogroup. Reading about it becomes progressively more interesting. First one barely gets the acronyms and the long discussions and internet posts and forums from such blogs as *Razib Khan*, *Deniekes*, to *Eurogenes* and so forth. Later it's the reading of the papers itself and making your own judgement.

Then it occurred to me - What would happen if I went on a quest for myself? I was sure I couldn't find anything. Then, strangely a short, really short, time period I figure I could build my own R1b story. And, again, at the end, I am right or wrong. Just that simple. Nevertheless, just hours after the beginning of this quest I wrote a post.

"SHULAVERI-SHOMU IS THE BIRTH OF THE R1B EXPANSION!"

por Olympus Mons, em 09.01.16

**the European dominance of Y-dna Haplogroup R1b had its origin in a very specific culture of the Caucasus the Shulaveri-Shomu, Not Yamna, nor Maikop, nor Kura arexes... no! Places like Kwemo-Kartli and Mentesh tepe are the true Urheimat (homeland) of all western Europeans. And the spread of that cultural and genetic trait started in the Iberia peninsula, because after the immediate ending of the SSC not millennia but centuries later pure r1b (M269) inhabit the peninsula making the downstream clades that populate western world (L11 and M51)."*

I think it is the first digital record making the connection.

And making that connection was clear cut. It was right there in a matter of hours.

Now, finding the trail via Levant and North Africa it really made me stop and for a few days felt like giving up. Then piece by piece one starts to find them. And, again, it's there. I am sure much more would, and will, be found but at least I found this trail, which is so obvious to me that it really bothers me for its simplicity.

From the epicenter of southern **Caucasus** at times of the so overpowering Ubaid people days one tracks them not that later at **Tell Tsaf** Israel. Then a couple centuries pass and in **Merimde/EI-Omari**, next up in Tassili Mountains as, or part of, the **Bovidean pastoral II** (white man phase) then again just a couple generations later making the all **chalcolithic Iberia and the birth of the Bell Beaker**.

Time will fill in the gaps but at least one can hoop from one rock to the other. And details will be in the correspondent suppl chapters.

And before we move into the story, and for those who are more skeptics in mind or knowledge about the subject (usually both) let's make another thing clear. The overall story, as I see it, is really simple – From the transition of the Halaf to Ubaid we saw the Shulaveri scatter. Starting from something like 5500 BC in the southern parts of the Caucasus, and by 5000 BC Mentesh Tepe had fallen. Mentesh was Alamo. It meant to me that by then *my Shulaveri* were gone. I only really focus and narrate about those who fled south. In real life things are always a mesh of events and decisions that is called history. So some stayed, and some flew to the mountains. Beyond the mountains there is the northern Caucasus and those already were (maybe!) or became R1b as well, at least with new genetic clades. Caucasus Mountains are not easy to transverse, conquer or live in. So do not find it strange that under pressure the preferred option would be to flee west and southwest.

However, now it sounds easy and ok to me, but actually it was difficult to start untying their presence because terminology is not the same in every region where papers are produced. And some are buried and burred in the fascination and *lighthousing* of more signaling events such as the pre-dynastic Egypt or the emergence of pre-cannan and so forth. And make no mistake. It's about people, sure, and so it ended up being in spite of my primary interest at that point had an emphatic focus on horses, dogs and grapes. Sort of. But to get to that story I have to go into archeology and tell a story that might seem obvious to me but I accept that I may be making a lot of mistakes. So, all in favor of critiques.

I will not change (much) the story based on latter findings I come across during investigations, those being reserved for several supplements that will be inserted as (suppl. Chapter XXX), added in brackets during description of the overall phenomenon, hence full chapters will be at the end of the first few chapters encompassing the *story*. So first chapters are the running story with bibliography also in brackets (*XXX) and after that will be the supplements, which represent later findings as a support for that specific sentence, paragraph or section, or on the other hand a too long story that would in the end impact on the overall flown.

What I did first after deciding to look for my take on the subject:

It all started by me looking for something in the area around the Caucasus that ended or had a major shift (population, was what I was looking for) around 6,000 years ago. If R1b where indeed from the Caucasus or from the Ukraine steeps than I looked just for fun for something in that broadly referenced and broad region. I Remember reading about *MayKop* but those were too late for the purpose, because the reference was Chalcolithic Iberia as the source of the demic diffusion of R1b genetic mutations. I had to be something that happened (or ended for that matter) around 5th and 4th millennium BCE, early enough to have those people showing up in the Iberia Peninsula by latest mid fourth Millennium BC (3500 BCE). It actually didn't take long to get to the South Caucasus Culture of the *Shulaveri-Shomu*. It fit the bill. So I read some of the papers on the web about the *Shulaveri-Shomu* especially from *Bertille Lyonnet* and *Carolina Hamon* (some published as late as end 2015). Pretty enlightening and telling. Then I dropped the subject of the not very profuse data regarding the SS culture and instead looked for something in Portugal that covered that period of Chalcolithic, or the centuries around half a millennium later in Portugal give or take a century. Again it didn't take long to find the *Perdigoes archeological site* and related settlements. For a couple evenings it meant to devour several papers and reports coming out of ERA archeology in the Alentejo, relinquishing on papers connected to AC Valera (Antonio Carlos Valera) especially those circumscribing on his own turf the left side of the Guadiana River. One didn't really had to start going about the descriptions of the housing, the inhumations (burials) and the lithic material, but just looking at the drawings of the topographic plan of both sites one soon becomes confused of which paper is really looking at, if Shulaveri or Chalcolithic *Perdigoes*. Going about descriptions of *Perdigoes* (southern Portugal plain) it stroke me amazingly similar to what I had read from *Lyonnet* or *caroline Hamon*.

But again, I am not an anthropologist or even an historian therefore it can all be a trick of my mind connecting dots, finding patterns, based more on ignorance then on actual knowledge. For a while (I mean, a couple of hours) I moved from Lyonnet and Hamon in the Mentesh tepe, Aruchlo, and others places in the Shulaveri-Shomu then back again to *Ac Valera* and *Ana Silva* in *perdigões*.

I mean, I could (and can) be wrong, absolutely. But it all feels the same people. I couldn't even grasp what was the doubt – Was it everybody around that time like that? Was it a common thing from everywhere and everybody? – Well no, not by a long shot! It's even strangely unique.

Tried to read material further away from the specific timeframe we will dwell around, explicitly mid-4th millennium BC to mid-3rd Millennium BC (the only time frame I really care for this subject) like the 6th millennium or even further back, but in Portugal or Spain it all seemed too primitive, too raw and too early Neolithic, if not still Paleolithic at sorts, which really strengthen my resolve that it was people, lots of people, that kick started the Chalcolithic Iberia Peninsula. It just strikes me as odd to even contemplate the possibility that the same people that had been residing in the western part of Europe, Iberia, just jumped that fast from sociological states, culture and technology that fast. Not at all a probability. For a couple days tried to read papers regarding Neolithic and Chalcolithic in Portugal but all one reads is utterly decontextualized to the purpose I had in mind. Scarce occupied territory, scavenging and hunting (not much) living actually of forager resource consumption, rooming off the land from cave shelter to cave shelter, full of shell middens every estuary of river.

Then suddenly one reads *Perdigões* and all in all one soon gets and acquires the fascination archeology today is having with the almost 2,000 years of occupation on *Perdigoes*, Porto Torrão and surrounded area as well as vast archeological sites in the broader area of *Alentejo* in the left bank of the Guadiana river. That place is key and I believe will be in the center of near future archeological surprises, once all the area is dug out and all the pits are open and all the bones are analyzed and sent wherever to figure out genetics. It will be a center of modern archaeology for the decades to come... At least to what is left, because a huge dam was just filled in (early 2000) making there the largest artificial lake in Europe, *the Alqueva*. On the other hand, Alqueva Dam was the reason in the first place why all those incredible sites were discovered and are making history these days. So extraordinary that just two decades ago nobody had a clue those huge settlements ever existed there.

But going back to the region of the South Georgia, north Armenia and northwest Azerbaijan... It had to be me. It had (or maybe still is) to be me, or my brain for that matter, to connect dots that do not exist, to create patterns out of noise and so forth. However it is also true that as strong as the ability to see what is not there so is the ability not to see what is in front of your eyes.

But going back to the Shulaveri-Shomu region. First thing you notice is that the shulaveri had no priors in the region (population moving!) it really was different from the Halaf culture southwest and the Sioni culture that follow them in the same region is just too different... these had to be my guys. By 6000 years ago they were gone... and the Sioni that followed made different houses, different pottery and different burials... just different people. They, the Shulaveri were just gone....

I end this part with an enigmatic paragraph, but one that will make perfect sense in the end. What really baffled me is, that at the end of this investigation I figure that, all I had to do was ask them. **Because they told everyone who asked what happened.** Why don't people listens?

Chapter I

And then they came...

Maybe, just maybe. And for those you don't really follow these topics.

8,000 year ago there were a people. That people lived on the margin (right?) margin of the Volga river that flows from the Urals to the Caucasus basins. On the left bank there was another population that looked just like them. But living on different margin of the river this guys and girls developed a different mutation (M-73) of the *R1b haplogroup*. They and the guys from the other side of the river really shared common ancestor and they were like historical cousins and for the next 8,000 year they remained entwined, tangled in spaces and as time went by at watching distance as known partners in geography but never mixing that much. And let me tell you that I am not 100% sure if the "problem" between them will not keep on popping up in the next centuries and/or millennium as something serious. We will see. The reason why those two brother, or cousin, population went in separate ways, and didn't really blend and just represent one single population is due to a fact that they had a river, the Volga, between them. And a river might seem a little thing but truth is that any obstacle, either physical or even political makes a difference in the *Fst index* (genetic proximity) of two populations. Amazingly so.

Geography is always misleading and truth is at this point is difficult to pinpoint a very specific spot for the origin of either. Or maybe some lived instead near the Dnieper River (a bit west) and the others in the Volga basin. Time will tell I suppose.

The two cousin population, the R1a on the left bank and the R1b in the right bank (pick the river) went on to have very different history for the next 5,000 until they actually met again in Europe, now R1a (Aryans) as the *Yamnaya* culture, latter *Corded ware* (battle axe culture) ... and the *Arbins* (R1b) as the *bell beakers*, coming out of Lisbon, Portugal, the Tagus river estuary and kicked started by the Zambujal and VNSP civilization (or Oestrimni for that matter), the first western European super power. Just because the R1b, bell beaker didn't make huge monument for prosperity, I doesn't mean they were not highly developed as the Hittites discovery story has so decisively shown us. It's not all about big pyramids that make a civilization noteworthy and remarkable. Just reading the Hittites and how they come from a bible entity to be the intricate and elaborate civilization we now know they were. They were a fable until someone translate the writing. Then it is mind bogging how exceptional they were.... Some say, just another R1b population that stayed behind, but that are not the one I want to talk about, I want to talk about the ones that kept running... the L278 (that is an early Y-Dna mutation of the male R1b). That arrive in a flash to the Iberia peninsula. Half a millennia more or half a millennia less (*although I discover later that it was a not so easy ride*). The story is a continuum, and when they finally became the bell beaker, it was a race throughout Europe, the R1b occupying the territory as they moved from the west and the R1a as steppe warriors coming from the east. Truth is the R1b stood as de dominant genetic Haplogroup in western world and the R1a as the dominant Haplogroup on the Eastern Europe. One clearly stopped the other.

But going back to the 6th millennium BC, 8 thousand years ago...

Those people, either already later mutations or just with M343 (so very early SNP mutation) or not, probably due to the 8.3Kiloyear event, or maybe just because the Holocene had already melted too much and uncover too much of the rivers and the plains that those R1b felt compelled to move south. Some just follow the river Volga while other turn all the way east moving around the east side of the Caspian sea and making a blob of R1b north of Iran and the other following the river or maybe a mix of the two just settle in the southern Caucasus to

what is today South Georgia, Armenia and west Azerbaijan. Or maybe some actually came from much closer from the *Dnieper basin* and just crossed the mountains.

Not crucial to our story and at a point in time and space, they just were. Just themselves.

People with a specific frame of mind, specific traits and sense of themselves.

Maybe whilst all bunch of other were moving from the south to what is today Syria and Iraq, other moving from Anatolia (today Turkey), which I do not have a slightest idea, the people I am talking about just ...were with very particular. It would be a misleading to go that avenue of sociologic interpretations, but their demeanors were unique and probable the reason behind so much grievance in the future. And I mean they were not the most developed, nor the most complex people or even, compared to their cousins from the other side of the river, the most aggressive I figure. I imagine all those people from the Haplogroup G2a, the men that represent the neolithic farmers, replete with that basal Eurasian DNA didn't really find those people particular singular or noticeable. If anything it felt like people that stubbornly kept to themselves. And later when J1/J2 (whichever) came with Ubaid period they were not the more aggressive or organized to be able to fight for the territory. If I had to pick a parallelism would in a heartbeat choose gypsies. I've known quite a few, saw how they camp, dwell and kept introspectively and *interoceptively* (which is different) to themselves. So, what made Shulaveri singular? - They seemed to own the terrain for as much usage and extraction of it that they could and they showed a remarkable tendency for individualism (shown by architecture) in a time when collectivism seemed to be about to be the builder of civilizations. If one had to give them a brand it would be masters of domestication. Of plants and animals.

Let's focus on the task.

From the beginning. Prior to the appearance of the Shulaveri the land was of the chokh cultures and those were divergent. People who lived mostly of the best utilization they could of the fauna and flora resources available to them. Basically smallish settlements of primitive ensemble were people lived mostly in one or two impressively over 60 meters big adobe houses, with a single fireplace in the center where extended *clan* lived together under de same roof. They were the "people of one house". Not at all like the *Shulaveri-Shomu*.

I am 100% sure if someone really digs into it (which I won't) might find the origin of the SSC around the Dnieper-Donets basin but I still bet on mid Volga (either left or right) and probably as the climate change of the around 8 thousand years ago (8.2 Kiloyear) made these sort of transhumance people to move south (landscape changes came from the south) and get around the midsection of the Caucasus. Wherever you read about their appearance in the 6 millennium BC the words mysterious or unresolved is used. Anyway, not the object of my interest. Suddenly they just got there and they were different from the substrate or milieu of the times they landed on. There is no denying some relationship with cultures of Northern Mesopotamia, meaning probably they came around the eastern part of the Caspian and ended up a bit north inside the Caucasus. The all SSC is so new that new classifications are being build. Some of the latest field work is defining even better the SSC by contrast even with contemporary settlements not that far way, further south, on the *Mil plain* next to the Araxes River that extends into Iran. Those there, lack most if not all the hallmarks of the Shulaveri. As Lyonnet puts it:

*"...contrast with the **rectangular architecture constructed at the Mil Plain sites**. Even the concept of the building material differs, as in Aruchlo hand-shaped and straw-tempered mudbricks were the standard, while the bricks used in Kamiltepe were dug fresh from the ground and were used untampered and without previous kneading" in*

Ancient Kura 2010–2011: The first two seasons of joint field work in the Southern Caucasus.

Other examples exist. For instance Shulaveri where full obsidian industry while guys at south were also heavy on flint.

That is how singular those houses and settlements represent in the area. Actually the disappearance of the *shulaveri* in *Mentesh tepe*, the longest occupied settlement for almost 2,000 years sees the replacement of the circular SSC huts with the rectangular houses coming from people of the south.

the *Shulaveri-Shomu*, upon emerging suddenly in the area, choose the foothill (never that high) near a river (essentially the Kura river) to settle from anew (no previous inhabitants) and make those small 5 meters (actually more around 4.6m) mudbrick singular (or family) half sunken huts or houses, so demarked by a not too deep negative structure (made a diameter hole in the ground), about 30 cm mudbrick base foundations and the generally adobe, wattle and daub, tholoi like house did the rest with mud to which was added straw or other organic material to give consistency (usually called *pisé*). Next to those they built smaller similar houses of around 1,5m to 2m tops in diameter silos for storage. And they built lots of silos. It was clearly the first signs of the *cultura de silos* and round houses castros of Iberia which I think endure until the round keltoi and villages of the celts.

Since the offset they built bent walls connecting the round houses and silos. Noticeable with several Pits and ditches in the living surroundings, and some with inhumations in it or just next to it. Those settlements had a central area, most time with a “courtyard” (formed by those bent walls), sometimes with a heath or fireplace to artisan work. Contrary to others they tend to bury their love ones in “house” or nearby the house of the settlement in round pits and the children were already buried in individually in a crouch position like latter we would see the bell beaker do (and many others). Some others were buried in ditches. Remarkably those were permanent settlements (structured like that from the beginning) and they lasted for mostly millennia.

Their trade mark was agriculture. But were also intense Sheppard and herdsman, most likely not transhumance (changing sites with the cattle) but really pastoral and had already domesticated horses, those famous original wild horses the Tarpans that you will see are pivot to this story, to help them out. This is important, having the knowledge of how to successfully capture, tame and breed horses is one of the tell tales of this all chapters that will follow and never to forget the first horse to show “bit wear” was a 5 year old stallion from Armenia 4000 BC (at Mokhrablur, Armenia 100km from Shulaveri site itself) . And to get to *horse bit wear*... probably riding a horse was something they would be doing for a while until figuring out that a rope or stick trough the mouth was a better way to control a horse.

Then, also seemed to be extensively farmers shown by the staggering amount of cereals cultivated and virtuous hunters as well. Fauna, domestic and wild, was abundant ranging from *Bos Taurus*, pigs, to sheep and deer (antlers), and naturally dogs were already part of their daily live. Of course, they are now famous for grape farming and the first wine production culture as well as for long prismatic blades and awls. On a lateral note those beads that I still think have a story of its own to tell.

At time of ending of their era is common to find copper residues.

Back to business, there is a statement by *K. Kh. Kushnareva* in his book that sums it up real good:

“Like in so many places around the Neolithic prior to the appearance of the Shulaveri Shomu, people seemed to live in small communal of agriculturalist and when one looks at the architecture for houses it really comprised of a largish tholoi like house where everybody lived, with a centered fire in the middle where everybody gather around and it really was the family or the fire people as we can learn from the Chokh sites. Not more than 30 people living together.

Not the Shulaveri, they were different. Contrary to what one would finds earlier, the overall structure formed an interconnected complex, with housing for livestock, storage pits, clay fireplaces inside the house and outdoor ovens. Those small single houses interconnect to form a larges structure and living complex, sometimes joined by a curved wall. At a point those settlements formed a Hierarchy of settlements, most with around 400 people and it seemed to have some sort of Hierarchy.”

It's this last point that most intrigued me in this passage. While researching this was at the time very important to start defining *my Shulaveri*.

So, especially in papers published in the last 5 years, it's becoming visible some social structured that encompass the Shulaveri culture.

One noteworthy thing, as it will also be ostensive as we go to the later chapters, when we jump in time and space to Portugal, to the lowlands of *Xerez valley in Alentejo*, prior to the occurrence of the *Bell beakers*, and concerning the interconnectivity of settlements, it all makes more sense if we talk a bit about 3 settlements here in the Kura valley.

If one looks at the *Shulaveri-Shomu* region map in the Caucasus and you will notice clustered together the settlements *Shulaveri gora, khrimis gora e irimis gora*. As Carolina Hamon describes it in her conclusions, or *K. Kh. Kushnareva* in the book *“The Southern Caucasus in Prehistory (...)”* will tell you, those 3 settlements formed an interdependent and sort of artisan specialized system by settlement and already hierarchical dependent to larger sites. Just as the bigger ARUCHLO I forms the “big city” for those 3 settlements and other cluster further east (*Shomutepe, Gargalartepesi, Toiretepe*) is hierarchical dependent on the much bigger *Goytepe*. What it means is that one finds reported the same specialization and site Hierarchy, with generically the same descriptions, *in* the Portuguese Alentejo settlements next to the Guadiana River. All seem to have some visual contact between them and lithic tools are not proportionally abundant in the different places. Some have abundant grinders, other adzes others are more specialized in hunting, others more pastoral, and so forth.

There is also the “off place”, let's called it that way, in both valleys. At *Kamiltepe*, further southeast from these clusters, towards Iran, we have a site with a system of **several concentric ditches** witch Lyonnet describes a ...

“ The MPS, 4 concentric ditch system is a type of monument so far not known anywhere in the Southern Caucasus, and its function remains entirely enigmatic at the moment”

... well, when we move to the *Xerez lowlands* and *Alamo valley in Alentejo*, Portugal, the exact same description will occur with a 12 concentric ditch system which is the now famous Portuguese late Neolithic/chalcolithic *Perdigoes Site*. Exactly the same description.

Let's pause...

Now, before moving on. And as a take way point:

Around 5 meter in diameter houses, 1.5 meter silos, rounded walls connecting and forming inner courtyard with pits and side Heaths, external ovens near the walls.

Where have we seen these? – You've figure it out by now. Just say it. Build a defense wall extending those inner round wall and you have a CASTRO. Yeah, I've said. What

are the differences between these sites and the fortified sites built by the bell beaker all over Europe starting just after a thousand years? These are Proto-bell beaker castros built thousands of years earlier in the Caucasus. Yeah, I said it! (my Chris Rock impersonation)

Continue...

And this leads to another, of many “coincidences” we will see next. Just an example. It has been several times described as a note the profusion of Ochre grinding in some SSC sites that do not have a correspondence in wall or floor paintings or even in pottery decoration. So... what was that Ochre used for? To me it's was obvious as soon as I read it - Body painting. It became obvious when at *Alentejo* sites (actually inhumations) it's reported in a Nature paper that “Chronic mercury exposure in Late Neolithic/Chalcolithic populations in Portugal from the cultural use of cinnabar” ... to body paint. Yes, the *Shulaveri-Shomu* used Ochre to paint the body (hence so much Ochre grinding at *khrimis gora*) as some pastoralists in Africa do today, and for what here is concerned the Iberian chalcolithic (or the descends of the *Shulaveri-Shomu*) did with Cinnabar in Iberia.

If one lets its mind wander, for instance those reported in some SSC sites of “Undetermined perforated cobbles” are also later found in cluster of settlements near the Guadiana River... And they also don't know what they were for! My guess is as good as any other... but I also have kids and if there is something kids like is to imitate adults with adult tools and make stuff only they find real interesting.

Anyway, at least in Neolithic Caucasus and chalcolithic southern Iberia. Which, by the way, should have a name of their own, to be identified by - Maybe I prior to the Caucasus IBERIA (Western Georgia) and prior to the back to same place IBERIA of today? Confusing. Chalcolithic Iberia is too vague, let's just called it... Oestrimni.

Back to IV millennium BC in the Caucasus theme.

As they came so the *Shulaveri-Shomu* disappeared. Sort of Abruptly. At least as a culture highly sedentary. Some defend, and actually might even still be considered the official version being that for some reason those population became *naturally* increasingly nomad and abandoned their millenary sites. As a natural phenomenon. So the sites were abandoned. Some to never have again have any resettlement by anyone in the upcoming centuries and millennia. Others taken by the *Sloni culture*, viewed as a transaction between the SSC and the Kura Araxes cultures... but not that much. Different everything: Different pottery, different houses (rectangular)... the *Shulaveri-Shomu* were gone.

At this point is important to define something. When I say *Shulaveri-Shomu* naturally we're not just talking about the SS sites whose final definition is in its infancy, but the region that shared roughly the same characteristics, notwithstanding the purity of culture of the *Shulaveri* we must include the people of the Mil steppe (at least part), Mughan Plain (*Alikemek-Tepesi*) and Ararat Plain. Especially here, farther south at the Nakhichevan region that shared the same traits - But most imperative that lair really central caucasus, like a column in the middle of the Caucasus is who I think were the source, or the bulk of, the migrating nomads that we are addressing and will travel with. Especially, and above all, the *Shulaveri* (the last to be overtaken), but also the guys in the Ararat Plain (*Kmlo*, *Aratashen* and *Aknashen-Khatunarkh*). Regionalists and nationalism apart, these are whom we should be calling *Shulaveri-Shomu*. True, most of the populations at the fringe were more permeable to “convert” but this guys in the middle didn't seem to have had that luck. And one should always remember, a fact not so often reported, that soon after the disappearance of the agro-pastoral *Shulaveri* is immediately follow by the popup of settlements with defense walls in the region (*99), burials far from the settlement (unlike the *Shulaveri*), in big artificial mounds (Kurgans), and so forth.

Those defense walls surely implies a not so natural fading for those people. Actually, during the 3rd millennium the region was marked by established tribes that attacked each other's constantly for land grabbing (*99) and obviously some were R1b, Former *Shulaveri-Shomu* tribes fighting their way (although there is likewise a strong possibility they all left). But the people of the Family nucleus round Dwellings, the Silos Culture (1.5 meters round silos), the domestication experts of plants and animals, beads lovers, they were just gone.

Gone transformed into what? Maybe a Berber type of culture? Is it even possible that the fate of the *Shulaveri-Shomu* was actually a similar fate of the Berbers by the hand of the Islamic invasion? Like in North Africa, all that genetic and cultural structure is pretty much gone, today being part of the general genetic makeshift of the region.

Anyway moving to where? Most likely trough Africa and them also suddenly to Europe in a flash (as a flood... of people).

One thing is for sure. Pressured by some sort of revolution or evolution that led to Mesopotamia, the Uruk, then slurred and embroiled in the "*Khirbet Kerak problem*" more to the west (the early Transcaucasia ware in Syria and Israel "problem"), or at same points intertwined with the characterization of the later Neolithic or chalcolithic in Israel or Palestinian archeological sites, whatever happened - they could have been there for a while. Maybe not more than one or two generation and something made them move forth leaving behind smallish sites of round houses in Israel (*which I found with tell Tsaf!*) . Sure, some, if not lots of them, may have stayed behind and probably show up in history at specific points. But they, at least as a patrilineage of Y-Dna R1b, didn't prevalence.

But a story is a story. In real live lets never forget that there are 3 survival strategies. Fight, Flee and stand still. So let's not forget that some, if not a lot, just stayed or remained either on the Dagestan mountains, just a few miles north and next to the shores of the Caspian and there still stand being easily recognized, as per paper Journal of Human Genetics paper from Caciagli et al (2009) being today all those *Bagvalins* (70% R1b!!!) of the mountains of Dagestan, the so called Dagestan *auls* or south running or pretending to be invisible. Others even assumedly remained and mixed with the invading cultures to become part of the *Kura-araxes* and today exist as the Armenians of the Ararat valley in Armenia, the *Tabassarans* and even further south *Ossetes* .

So no mystery. Like normal people in other events in time and places they stayed, made due with the situation and survived.

It was just at the end of the investigation that I figure how clear is has always been and rushed to investigate and write the rest of this part (read later *Suppl I – Chapter- those who fled the S...*)

The once vast land of the R1b Shulaveri, north of the *Halaf* culture and *Hussuna-Samarra* people, were no more.

Chapter II

The African Route

This should have been a short chapter. But it wasn't. And it yield two, *imo*, best supplements.

The middle story, as I called, it's not (*was not!*) by any means the object of my interest at this point in time. Anyway, I am sure many others in the past have built a narrative for this time and events. However strangely I have not found any narrative that directly narrates the journey.

Here is my two cents:

Whatever happened that led to the end the *Shulaveri-Shomu* culture in Southern Caucasus it must have been big and decisive (*or not, see Suppl I*). I know. Many will point to the story of the floods so common in ancient tells that for instance made it the bible as the Noah arc event and that happened around that time. Or that they evolved, morphed, into something divergent but local. Or it was just people being mean to people, as always they have been in history, and overtook them on their own land. What is known so far points clearly to the latter. Down south there was brewing the Ubaid period for a long time, so much more complex and multifarious, and century upon century they were moving north as a blob of civilization that just grows, new and socially complex, making the Shulaveri old stuff (*see Suppl I*). Perhaps it was just the Red Ochre body painting or the stubbornly different stance and outlook (houses, obsidian and ochre) that put a target on their back. But People don't just disappear. Not at those ages and time and with that kind of technology. Therefore future will find (if not already and it's just my ignorance) the detailed and exact seals and stamps of that exodus.

It's currently assumed that the *Shulaveri-Shomu* became moving, transhumance or roaming tribes. And those tribes, by then mostly pastoralist, moved a lot and couldn't find a place to grow new roots as new cultures and folks wandered towards them. One can safely assume that they were no more, no longer in there - They left behind all that area for good, At that point in time, from current Iran to Iraq, Syria and Israel was in a culture turmoil of sorts and they could just be absorbed and enthralled into those more evolved, and at the end if they were the "original" R1bs as bearers of SNPs and cultural traits that led to European Bell Beaker and subsequent cultural phenomenas for later milenia, in the southern Caucasus their patrilineage did strife and not for long. Anything is possible.

However if they didn't just got clouded by the wheels of time, and I am right, they just represent a emergence of a certain individualism and sort of stubbornness that we will track in the next steps and which made them unique. Not by a long shot any better but, if something, a bunch of unorderly, unmalleable and sort of introceptive awareness people who kept for themselves or to their daily business of live hood and food production. And that meant they didn't break, meaning change their ways, and a lot of them moved. And it had to be a lot and moving fast (but maybe it took quite long... *Suppl I*). if the Ubaid dominated the 6th millennium BC and during those dates after 5500 BC we saw the broadly denoted as Shulaveri (R1b Arbins) in the southern part of the south Caucasus now moving south to the Jordan valley and west to Anatolia, I truly think the Shulaveri of shomutepe, the ones living just next to the Kura river near the Caucasus mountains, where the last ones being overtaken and that would have happened in the first quartile of the 5th millennia or even later. Think 4900- 4800 BC. Bear in mind that not much later than that, the *Uruk*, already fully evolved Mesopotamian are reported as farther north as the northern part of the Caucasus, which must not have been a fast and short task to cross the perpetual frigid and snow covered Caucasus mountains, hence plenty of time to bulldozer the Shulaveri People at the south of those mountains. Although I think it was done by the hassuna-Samarra people which then blended to the Sioni people with

rectangular and T-shape houses. They were snake (or lizard) people. First overrun the Arbins at Aratashen then the rest of the people at Shulaveri. From Hassuna Samarra to the heart of Shulaveri is less than 240 miles.

By 4800 BC, It's not even a big effort to find them in *Tel Tsaf*. I am sure that their trademarks are also found in other places if one takes the time to look for. *Tel Tsaf* had lots, and lots of tell signs. Above all even has a copper awl directly placed its origin in *Aruklho*, heartland of the *Shulaveri*. But also the round huts and the clear culture of cereal silos, animals, lots of animals and dogs, anthropomorphic and zoomorphic ceramic figurines, etc. One doesn't really need to go very far. Just Reading Emily Marie Hubbard thesis (A Geo archaeological Investigation of Storage and Surplus at Tel Tsaf, Israel) it's really amazing again the imprint of this new people in the area. It defines the middle chalcolithic (5000-4500 BC) in the region as opposed to dissimilar early chalcolithic and different posterior chalcolithic phases. It's abundantly clear that prior it was something culturally different and after them it occupied by also different folks. Sherds, architecture (back to rectangular houses, etc.).

Also easy to find part of the signs (I haven't dig to heavily into it) in Gilat, farther south just near the Sinai, especially when papers keep referring the long Prismatic Blades (trademark of Shulaveri) of Gilat as imports from the *Maadi* in Egypt (no it was instead *them* taking this tool making skill further ahead into north Africa as part of *Maadi*). There are much imprinted marks in the Middle East. So imprinted as the *bewilderment* of finding a horse skeleton as early as from late 5th millennium BC in *Shiqmim* site Israel, which is just near what is current Gaza Strip arriving to Egypt. Note that Horse is not a species found before in the region, nor was it found after. It was a specific time in history, a millennia at most from Armenia/Georgia to Iberia peninsula, as it was in other places as we will see, that match always with the trademarks of the Shulaveri in those specific regions.

A generation or two later, they were in Egypt and maybe part of the tribes along the Nile River that ended up making the pot from where ancient Egypt sprung. When saying part of the pot I mean a really low influence. Don't get me wrong. Again they were the outcasts and the ones that really didn't get involved.

That is why they are found then in *Merimde* and *EL-Omari*, definitely the Shulaveri stock, so much north and not at all getting involved in the Upper lower Nile settling scores prior to Pharaonic times. Even on the eastern side of the Nile Delta itself one can find them in *Tell el-Farkha* or *Mendes* at a very early stage before being also overrun by *Naqada* or Badarian from the south. *Maadi* although later stage is clearly imbedded also in Shulaveri. It was not so obvious however and was hard and difficult because everything written is so obsessed with Namer, pre-dynastic or pharaonic Egypt. There would be a story with the *Maadi* (at least in part R1b) and the southern so different *Badarians* but in the end those are the ones that stood and ended up being consumed by *Naqada* III or any culture component or story that led to later Pharaonic Egypt. *Maadi* is what was left after the Shulaveri at Merimde and El Omari moved on, therefore *Maadi* is what happened to those that mingled with other local population, probably more numerous, and the part of the story of those that stood behind. So no record of them south Egypt near the Nile river (see Suppl II – Resting in Egypt) but found traces west of the Nile in the several Oasis that stood the pressure of Sahara birth and still exist today.

But remember, I truly think the Shulaveri Arbins (mutation R1b bearers) stood way north in the Nile Delta, away from the brewing of what was to come. And up there was undoubtedly *them*. If anything else doesn't really convince you, let me quote this from Michael Hoffmann 1979 book "Egypt before the Pharaohs":

"what little work was done portrays Merimdens as a slightly built, **ROUND-HEADED FOLK** whose men averaged 5 feet 6 inches in height and women 5 feet 2 inches.

Abscesses were a common malady . . . a situation that probably reflects a combination of the new agricultural diet, genetic predisposition and local water chemistry”

Yes, Round-head, meaning *brachycephalic* vs Long head *Dolichocephalic*. Isn't this a trademark of the Caucasian R1b?

It's common to find the following references regarding our shulaveri:

*“As regards predynastic population, peoples of Lower or northern Egypt show a range of variability and types. Sweeping classifications such as Caucasoid or a “Mediterranean Race” depicted under older Aryan race models are thus problematic for this region. A number of influences were present from surrounding populations. According to one history **populations around sites such as Merimda, Maadi and Wadi Digla** have quite different characteristics from sample **populations from early Palestine and Byblos**, “suggesting a lack of common ancestors over a long time.”*

As the Shulaveri moved on and we enter the 4th millennium in Egypt, *Maadi* and guys buried at *Wadi Digla* or *Shurafa* really show all brands of the North African populations and Caucasians. Lots and lots of admixture as the 5.9 kiloyear event kicked in. And so lots of *Armenoid* and *Brachycephalic* or even *Lapponoid* features, so full Caucasian guys alongside with all sorts of admixture with Berber, Mediterranean from western Africa parts, *cromagnonoid* and sub Saharan Africa as reported for instance by *Andrzej Wiercinski* work .

So, there should not be a surprise if Tutankhamun was really an R1b.

I don't really want to go there... but. It's not even difficult to insulate this. The top North Africa areas with R1b are *Tuaregs* from Niger (33%) and *Siwa berbers* from Egypt (29%). The first ones, are the *dead-end* of the R1b-V88 going south. The second ones are the ones that stood behind and stick around the *Siwa oasis* (big archeological site and home of clearly outcast people of ancient Egypt for millennia). *Siwa oasis* means the protectors of the sun god **AMUN**... go figure why the boy king R1b was called Tutankh-**AMUN**.

Anyway the Assyrians went very far to “meet” these people there in the Oasis and even Alexander the great made a perilous 6 day journey through the desert to meet this outcast individuals. History tells us, they continued to be, stubbornly, themselves (its something one can always say of the Shulaveri stock) up until the Islamic rule finally manage to change their believes and ways in the 12th century AD. The toll, as reported, was being left with only 40 surviving males.

Either in the Siwi language or their high number of R1b-V88 patrilineage there might be bread crumbs there to link them to Dagestan (where the others stood) or all the Kartvelian languages. Way off my linguistic league to go there. And Siwas are too admix with sub-Saharan genepool (like the rest of the V88) to track the Shulaveri. (*True, but no so clear with the others – See suppl. II – Chapter, From pool to pool, the sons of the L278*)

So, let's here keep track of the folks that ended up in Iberia Peninsula.

By 4000 BC they were no more In Merimde and related places (*El-omari, Fayum* where they herd the cattle, *Kom* where they store stuff) and it remained there the Maadi which I think was part R1b and highly infiltrated or conquered by the Badarian from the south. Maadi is seen as a bridge between *Levant* and south Egypt where the *Badarian* and *Neqada* were moving up and overrunning everything to cook what was to be the pharaonic Egypt.

The others were gone again. Did they flee again? Maybe. There must have been a flow of R1b Shulaveri moving past Egypt moving west. This is the exact moment of the 5.9 Kiloyear event that started to make the Sahara desert. And if they were looking for land looking to the west, they really were getting into troubles. It seems a safe bet to always estipulate that the Shulaveri needed land. And finding land for agriculture is pivot on their quest. Moving west meant, unlike one can assume by today Sahara landscape to move into what is today the harshest part of Sahara desert but was at the times the region that resisted more time as habitable and paradisiac - Tassili and Accacus mountain range.

Again, I don't think the R1b had such a big influence in the region. As I think had none on the civilization rising of the Middle East. However at this stage after moving west departing from Cairo (what is now Cairo) I think they were part of the substratum living off the 100km long and 20km wide valley between *Tassili* and *Accacus*. And prior to being kicked out by the impious Aeolian desert events, they were there for a while.

That broadly referenced area was overrun by sand. Loads and loads of it. If one could just remove the sand would find whatever is missing of the vast amount of people, E1b1b (M-81) and a certain amount of R1b, that populated the mountains in middle of North Africa. That would be another story concerning E1b1b of mutation E-M78 and the Old Berber guys of the E-M81 that I think also crossed the Gibraltar with the Shulaveri R1bs.

So, as of today, is a motherlode of problems to find archeological evidence of their presence in the exact regions where they might have stood for a while, because those areas are the Sahara nowadays. And they were in the Sahara while de Desert was being created by climate change. Its meaningless today in terms of archeology but the people there might not have been that irrelevant for the region history.

Today most experts in northern Africa art see the influence of the Sahara people in the surge of the Egyptian dynasty. For instance reading a fine paper (*222) about discussions and argument in North Africa art one can read he following:

*"little evidence for Predynastic Egyptian influences on the prePastoral and Bovidian Pastoral art of the Sahara, because the latter are already so well developed at such an early date, before anything similar can be recognized in Egypt.48 He now favors the idea of **Saharan groups influencing the developments in the Nile Valley**, probably by the **mechanism of non-Negro pastoral peoples migrating to the Nile Valley ca. 3500 B.C.**, during Predynastic times, and having some effects on the birth of classic Egyptian art in the Protodynastic period about 3200 B.C. (This would apparently explain the absence of the RoundHead style in Egypt or, as far as is now known, anywhere east of the Ennedi: it had disappeared much earlier.*

So while things started to be rough and lots of people flocked into adjacent the Nile, some of these Berbers were part of the confusion and some might even had been R1b males. Maybe another reason for Siwa oasis being made of R1b stock still today and the rest of the Egypt is so obviously not. People might move back and forth for a while and some R1b stock where in it.

A word about women.

Roaming Shulaveri were an overrepresented male population. That is something to be yet explained. Either women died of hardships or stayed with whom ever made the male population stock move away from the Caucasus, since women were always a valuable commodity. But I don't think it was all men. So some women (or a lot) were travelling and bearing their children all the way from the Caucasus. But the male herdsman and roaming around men must have being picking up women all along the road. So looking to the Tuaregs Fezzan of Libya with 60% mtdna H1 (highest anywhere), the so called west European Mtdna,

we can find something else that will link them to Dagestan women (here H2 is more common). Actually H2 is a parent subclade of H1 and H3 (as well as h13). And the most important fact (*442) is that H2 is only found in great amount (11%) amongst the Chuvash (from the Volga Urals just north of Dagestan (remember chapter I), but also high frequency in Portugal and Spain, were a specific subclade H2a5 is even found only in Basque (*450) and residual around the area and them blanks out completely. So, forgetting males, women had a very different story altogether.

Two other things also are noteworthy. first one that Hg V has the same age (slightly older) of hg H1 and H3 and sees its higher freqs in exact the same places as H1 and H3, and notably being that in Caucasus is only existing also in the Dagestan mountains (in Avars) as well as strangely is seen in some Berbers populations (*448). Second is that H1 and H3 (and V) are responsible for the closeness of some groups of current North Africans populations and marks the distance from others (*449), therefore being possibly the hallmarks of the Shulaveri/R1b passage on their way to Europe and identifies the groups that ended up travelling with them into Europe.

So another notable fact is that one should bear in mind subclades and structure of mtDNA H1 Haplogroup, if not for everything else then by the high frequency of H1 and H3 in Iberia and North Africa Berber tribes (some) it implies that the Caucasus, North Africa corridor and Iberia was something established already at the beginning of the Holocene (*451). Especially for H1 since I think H3 probably was more in consonant with the Shulaveri movement (as does H2 and V). So finding patterns for less than a millennia is really hard. North Africa, the Sahara desert one (for the last 5000 years), has been a wasteland and graveyard of a lot of things, like most harsh deserts are, and there is a lot of structure that was just washed away and extinct by sand and heat. So one always have to look deeply.

Some linguistics have for long being making the connection between some Caucasus languages and Basque I would urge, strongly and whole heartily before its extinct, some linguistics to also follow the link between language in northeast Caucasus, the *Nakho-Dagestani* (Avar, Lak, Dargin, Nakh, etc) and the *Siwi* language which is part of the Awjila–Sokna languages that extent to Libya. Special concerning short and long vowels and the fact that *katvelian*, *proto berber* and *Basqj* are ergative construction language... who wants to bet there is a link? Too bad Kaddafi prevented all international studies (but a few) up until recently. Maybe it still possible to correct it.

But enough of this detour. Let's not digress.

So, from Egypt Merimde, a generation (s) later *Shulaveri-Shomu* were part of the Libya, Algeria and Tunisia, and R1bs (I think not our Shulaveri tribes but broadly Arbins) even made the pot of Chad's herdsman tribes (no surprise those are the next follow up places in terms of percentage of men R1b). R1b (and maybe many others) always follow the sight of Mountains. They are attracted to it. So they moved to the next one - and it's not that there is no record, right? It's even called the Bovidian Pastoral...II. And it's "II" because first, phase I, the cave paintings showed what would be easily represented as dark people (dark faces period) and suddenly white Caucasian types were represented as herdsman with bows (called also Caucasian period).

One just needs to look at Tassili-n-Ajjer paintings (reading the book: African Herders: Emergence of Pastoral Traditions is very telling) to see this plainly. One can find there paintings in essence of cattle herding but also some horse or even dogs. *Tassili-n-Ajjer* has vast pastoral and herdsman paintings of very big herds. But it does also have paintings of Dogs hunting (amazing the one of five dogs and a hunter) and clearly a horseman herding cattle.

By the time of the *Bovidian pastoral* phase II the 5.9 kiloyear event had already kicked in for a while. And the arrival of the Shulaveri coincided with the beginning of the violent Aeolian erosion of the once fertile lands. Bad times, with those huge sand storms that witness even the caving of rock shelters roofs.

A curious fact is that the dogs depicted in those paintings, clearly sighthounds type of dogs, are ancestors of the ugly, slender and anorexic Spanish Galgo, one of the three races that cluster together with the beautifully huge Serra da Estrela from Portugal and the even more colossal Kangal dog from eastern turkey in the same genetic Haplogroup (later will address all those papers in Dog Chapter) and are the only ones truly related to the Big Mastiffs of the Caucasus. In the journey, clearly the slender ones like the Spanish Galgo had the upper hand on survival but not the big scary ones that didn't really make it in big numbers. We see these sighthounds dogs in Pre Egyptian dynasty as in ptahhotep's mastaba (3 millenium BC) or the tomb of amenemhat necropolis of beni hasan.

Regarding Dogs, one always need to have present that Dogs were trademarks of Tel Tsaf and Merimde.

Anyways, in the wake of their arrival to North Africa, and the beginning of this **middle pastoral period** " *it's the time of Knapped stone arrows North Africa. These changes also parallel the lithic production of knapped stones. At the end of the period, geometric elements evolve to bifacial, **knapped arrow points.*** "

They arrived at *Tassili Acacus* (in large numbers) and like later in the Iberia peninsula it's most visible lithic feature is... Arrowheads. Lots of.

Our imagination usually underrepresent the population of North Africa prior the desertification. And when things start to get really disruptive some of them moved to the Nile and other moved west and south. Bad choice. Moving to the west meant not escaping the desiccation and aridification of the Sahara. Some definitely moved south and as the desiccation was ending the oasis which all North Africa was becoming, those R1b pastorals got stuck down south and became the now known as V-88 subclade of the Sahel African tribes. So most V88 tribes were south or stayed behind although naturally some also ended up in Europe. (See *Suppl III – Chapter, Exodus to Iberia*)

Not much record of them in Morocco therefore it was a run for their lives. Only option was moving North... to the Iberia peninsula. And yet things were already pretty sour between those large groups of people, either all R1b *Shulaveri* or Indigenous local proto-Berbers as we always see in those situations. Better quote something:

"Among the early depictions of war is a battle scene, in a rock painting in Tassili n'Ajjer. dated to between 4300 and 2500 B.C., with groups of men firing bows and arrows at each other. In the image a group on the right stand ready to fire their bows as a group on the left begins an assault"

This hardship is important to understand the stance, the harshness and spike of these people when they got into the Iberia peninsula. Because southern Iberia was not really gentle people strolling around and that is key to understand how they became the bell beaker warriors so fast.

And I suppose the book *The Emergence of Pressure Blade Making: From Origin to Modern Experimentation* by Pierre M. Desrosiers will be mentioned a few time next chapter, but let's

leave here this quote regarding **lever aided blades** on the of the chapter 2 from Marie-Louise Inizan:

*“Thick oversized blades (more than 20 cm) the so called Canaanite debitage began to appear at the end of the 4th millennium BC (Anderson-gerfaut and Inizan 1994). This corresponds to the development of **lever-aided** debitage (pelegtin 1988, 1987) “.*

One can argue...but, why does that has to do with she SSC? – Again, Jacques Chabot and Jacques Pelegrin on “Two Examples of Pressure Blade Production with a Lever: Recent Research from the Southern Caucasus (Armenia) and Northern Mesopotamia (Syria, Iraq)”:

*We do at least know that the culture represented in the Araxe basin by the sites of Aratashen and Aknashen-Khatunarkh shows very close links with the **Shulaveri-Shomutepe culture**, which developed throughout the sixth millennium to the North in the Kura basin. Architecture, as well as ceramics, bone and lithic industries, testifies to the fact that these two cultures share a common root, **and it could be amongst this common stock that the technique of pressure WITH A LEVER DEVELOPED** (Arimura et al. 2010).”*

Having then arriving in the Iberia peninsula, from North Africa, already with blade production of huge blades by the usage of lever didn't help it to be peaceful. Oh yes, it wasn't nice or peaceful how it went. These guys where already spending a lot of time to make better and bigger blades and working hard on their arrows. Had they learned something from what happened in Merimde?
It served them well.

The rest of this story, and how it happened, is in *supplement EXODUS TO IBERIA - Plight of the P297 mutating to M269?*

Chapter III

Pumped out by the Sahara

“...Suddenly it all changed with the arrival of carenated Ceramics, arrowheads and loom weights”

Because of the vast People migration that was under way at that time, as seen in supplement about middle Sahara, maybe one of the biggest ever seen at that time, still in the 4th Millennium they were moving cross Gibraltar to southern Iberia. One figures that by 4,000BC they must have known about Iberia. Merimde had over 2000 people just there alone, other places also had a considerable population near the Acacus mountains, Near the atlas mountains there were sites that one can relate to what we are referring in here.

I will transport us fast to the left bank of the Guadiana River in the *Xerez lowlands* and the *Alamo valley* in Alentejo, Portugal. However to understand how that exodus occur one always must bear in mind that from the northwest point of Africa to the Alamo Valley its just 400 KM or 250 miles, or that distance from Oran in Algeria a 1000 miles. Herdsman are known to have travelled much farther than that.

Neolithic Portugal (up until mid-4th millennia bc) was a place very scarcely populated by humans. Neolithic as agriculture movement was sort of a late arrival to the peninsula. Very much still nomadic or transhumance population, mostly using temporary caves for sheltering and very rarely the existence of the traditional Neolithic “long houses”. Lifestyle in the south Iberia mixed not clear cut agricultural with evidence of pastoral lifestyle; undecorated pottery, percussion lamination of rocks. At the later stages it emerged the megalithic monuments, the cromlechs, as burial grounds and not. Even in the region we are about to enter, the Xerez lowlands and Alamo valley (northern Alentejo), hunting seemed to be a very rare event. And comprised most of bovine and ovicaprine, rough and crude, not at all evolved lithic are the norm (all in *456). Agriculture was as we all know a movement from the East Anatolia to Europe so no surprises that it took so long to reach this parts of the world. And they had lots of natural resources to live by, such as easy access to fish and shell food has seen by the large *Shell Middens* found everywhere so not a very big pressure to elaborate strategies of making the most out of the enviroment. There is no way someone can make the argument that such primitive non developed and meager agricultural and barely pastoral population would jump into what we later see for the next millennia. Not in complexity, not in sheer volume of population. It all happened really fast, with settlements arising in a very short period of time in southern Spain just tens of years apart which meant a flood of people. What were they moving to? What was it like the terrain and territory they were settling into? Let’s see the farther western part, because that is where the Bell Beakers ascend from.

Again contextual is important. By well mid 4th millennium BC they, the R1b Shulaveri were already in the Iberia Peninsula alongside some E1b1 in some considerable munbers. If Merimde, El-omari and their specific parking at Fayum was gone by 4000 BC, wouldn’t surprise me by any measure to find outliers in Iberia that were Shulaveri R1b and E1b1 (M-81) by 3800 BC. Not at all. And this is so denunciated by the noticeable amount of objects from North Africa and related to Egypt on form and shape that are only found in this time frame (like Leceia objects), so much that for instance BRUNTON & CATON-THOMPSON, 1922, made an effort to prove that the Portuguese chalcolithic as related to the *Badarians* in Egypt. Obivously I think they were wrong, well not Badarian but as I state in here the Merimde/El-omari and somewhat the *Maadi* that at that precise epoch were actually been overrun by the *Badarians*

themselves. So no surprise. The same is true for finding Shells that only existed in North Africa which was also common for the late 4th millennia early 3rd in Portugal, or lots of Ivory, elephant Ivory, some of it today alleged by some as of coming directly from Egypt already sculpted like replicas of Egyptian axes making a strait connection between Egypt and the Land that is the birth of the Bell Beaker (read João Luís Cardoso papers). Not to mention the famous Perdigoes site where dozens and dozens of elephant ivory idols are found in burials. First people arriving in *Perdigoes* brought with them objects from North Africa and I truly think the “African cattle Complex” has is this days called.

They would be coming from places like *Takarkori* rock shelter in the *Acacus* mountains where carbon isotopes found in the milk fat (oh yes, already lactose tolerant, they were) shows that those animals had access a lot of different plants, meaning they moved the cattle around a lot probably because environment was changing fast. It really needs to be mentioned that the fatty lipids were specific of the mid Pastoral period. So these lactose tolerant drinking fresh milk had an added source of fluid, and the people who were able to tolerate lactose stayed better hydrated than those who didn't have the genes for it. As I am sure we will find in *Perdigoes* the same fatty lipids once that analysis is performed.

So actually one must always remember that in small numbers (or not that small) they were getting across the Atlas Mountains and could be getting across Gibraltar as small groups of herdsman with their Cattle, Dogs and Tarpan Horses all along the *middlesish* 4 millennium. And they brought aggressiveness with them. It doesn't mean it was the Shulaveri themselves or R1bs for that matter doing the killings but we are looking here to what is the time when, for instance, we start to find inhumations in Iberia Peninsula that were most likely killed by interpersonal violence as Ana Maria Silva so well show us (* 601) special with all those DCF (Depressed Cranial Fractures) that we already knew from Otzi that, arrows or not, was the preferred method of finishing them off. And there were lots of cranial trauma being found on those centuries versus postcranial that are associated with occupation (walker 2001) injuries. On the other hand no blunt force killing for that poor guy killed by an arrow that severed his spinal cord at Lapa do Bugio cave. Ouch - Shot in the back, close range. That is really mean (*453).

And, amongst others, Jose Ignacio Vegas work show an innumerable episodes of violent deaths, most of them by arrows whose heads even got embedded in the victim's bone. Especially young males. And lots of parry fractures (raise arms in defense). Make no mistake. The Middle of 4th millennia BC was a violent streak in Iberia (*664). Particularly for young males, that are really over represented as inhumations.

Iberia Neolithic Populations were really no match to the incoming wave of cattle herdsman, hunters, horseman and archers, and also and above all what the Shulaveri always were, masters of domestication either animal or plant.

Hence the high prevalence of agriculture concurrently with *Cattle cult* that they brought with them.

On the other hand, one should make an effort not to “normalize” too much and just consider everything excessively homogeneous in Iberia for that period. I mean it is a sort of homogeneous picture the Iberia Peninsula in terms of population and way of living, but it had its local populations that must have had some sort of reaction to events, and that reaction must not have been the same everywhere. Fight (and were killed or somehow enslaved) and fleeing. But with so much available land because of scarce population it had to be full with places a population could run to, from the incoming impressive stock of people popping out through Gibraltar.

I think for instance there is a very telling site that really represents exactly this fleeing events - Reading Neolithic and chalcolithic not that farther north than the *Xerez lowlands* but still at a considerable distance (300 Km) one finds the Coa Valley (*533) where clearly lots of people

sort of cluster in waves at late neolithic and chalcolithic. If or when someone manages to sample genetically them, I figure there will be no R1b (a good litmus test) in their mix (or E1b1...maybe) But you will find North African (*555) mitochondrial haplotype U6a1 and U6b (*what I mean is U6 in Portugal –which strangely exists only in the north and not at all in the south – is all paleo/early Neolithic and not Islamic rule that didn't have probably that added much genetic influence in the country*), combined with paleo Portuguese neolithic mtDNA and Y DNA for Neolithic Farmers and, even more telling, that is why you find there in the mountains surrounding *Coa Valley* still today the local blob of G2a that one commonly finds in mountain regions in Europe.

Augmented population headcounts at these sites coinciding with the timeframe when, down south, was the arriving of the Shulaveri and Berbers (imo), means most likely one thing: Run north from the incoming *intimidating others* and local populations had no option but to move northbound around the Serra da Estrela mountain range, keep running until you bump into the other huge Iberia River. The Douro River. There, where you can't cross is the *Coa Valley* where humans between 3500 BC and 2000 BC cluster (again *533). Works done in the last 50 years in the area clearly show this spurs of population increase at times. Whatever words one uses to characterize the events that englobes and defines Chalcolithic Portugal it cannot be applied there, even later periods of bell beaker, social complexity and so forth. Is not there. Ever. They were left to be, serenely as they were, because the bell beakers moved southbound the Serra da Estrela Mountain range, being that the reason why Madrid is south of *Cuenca Alta del Manzanares* and actually are so genetically closed to Central area Portuguese. It's the Bell Beaker route and I imagine they didn't detour much from it. *Coa Valley* will most likely be still a cornerstone in understanding the population transitions in Iberia Chalcolithic, precisely because they, the people which lived there for a millennia where actually not that chalcolithic anyway.

In the south not that earlier, Shulaveri, proto-bell beaker, also bumped into a river although not the same one. That was the Tagus River. To Cross it they followed the Sado river until bumping in the estuary of Tagus. For sure not the place to cross it, large and deep waters, so move along the river and cross a bit up north stream near the *Muge* region. Coincidentally that was the territory of the very ancient and primitive *Muge People* that so much ink brought in works and papers of the first half of the XX century, which I will address next, people that actually didn't had nowhere to run so they disappeared at around that time. There is a lot of doubts over the carbon dating for that period. But if 4000 BC saw the Sado and Muge Shell middens sites being overtaken it would not be improbable if it were, at least in part, *my Shulaveri* first scouts arriving to Iberia and roaming the land prior to the influx of north Africa. Sure it's a stretch but it depends on better reassessment of carbon dating that has to be done and even later findings since the subject and sites are to be readdressed in works by Portuguese archaeology today. And again while writing something one tends to carve the lines when in reality those lines tend to be very blurred. Meaning that at the same time as Merimde where Shulaveri by last quartile of the 5th millennia so already parts of central Sahara had them in part (say 4200 BC). By 3.800BC there had to be those mix of Shulaveri (R1b) and Berbers (E1b1b) in south Iberia.

Actually I think the *Muge* people (*Homo Taganus*) were absorbed by the incoming more evolved population coming through as seem by chalcolithic *poor* people around Zambujal (*carenuque*) findings not many centuries later. *Homo Taganus* was found to be for at least 4 thousand years in the region and then were gone. Fading away, true, but not before giving that increase jaw prognathism to the bell beakers or at least adding to it on top of the mix with berbers and some L3 women in Egypt. See if that is a trademark that is sometime noted about the Bell beaker population, then lets be assured that it wouldn't be a mystery where they could have picked up that characteristic. Anyway *Lapa do Bugio* guy with the deep arrow in the back is just not that far way (*Sessimbra*). It's a long stretch I know... But only if one discounts

that there is always, and still lingering, mystery of the brachycephalic crania in their midst, yes in the middle of the so primitive Muge skeletons, that still stumps Portuguese archeology. It's a maybe and clearly an open issue to track.

Whatever or however happened, chalcolithic in Iberia was a chiasm with the past, was a novelty, and was so noticeable, as in very few other places seen prior to it, because they came into Iberia hot. Fuming. And by hot I mean those people were the representation in this side of the Gibraltar of the populations of the North African late pastoral phase in middle Sahara when paintings depicting fights and arrow battles, which actually even in there were a strange and new phenomenon. In Egypt King scorpion and king Narmer (if they were not the same) were crushing skulls and proud of it. No wonder our Shulaveri at Merinda had to flee and maybe no wonder they were by this time a little bit more aggressive or imposing than what they had been in the past.

But whatever North African incoming folks encounter in Iberia was no match for them. How could it be. That is why, after that, by last quartile of the 4th millennium clear signs of interpersonal violence seen in cave burials just fades way and seems to stop. You don't really kill your own. At least until you look at them as such.

All those fortified settlements that mark the new south Iberia (From 3400 BC) were not meant to protect them from the primitive living inland or each other (at least not the ones already living in Portugal)... it was from the incoming ones, so I suppose the stock coming was actually somewhat differentiated in the packs or packages.

On the other hand, one always suggests the simplicity of crossing Gibraltar strait into Europe, however one thing is for sure, the lacking of R1b and the isolation of several subclades of mtdna H1 (H1v, H1x younger than 4,000 years)) in northern Africa means that it was not so "normal" to cross between continent. Especially not back to Africa, because North Africa was becoming the hell scorched Sahara world and the plains of southern Portugal and the land of the middle mountains in south Iberia, must have looked like Paradise. But actually the only lowlands in all Iberia from the Atlantic up until the Pyrenees is the Lowlands of Alentejo and is way we will focus in there. Look at a hypsometric map of Iberia and it's all too obvious. It also means that the increase in population in Iberia from the last quartile of de 4 millennia BC meant it was made of a huge exogenous migration of people that where already out of the comfort zone since the 5.9 kiloyear (3.900 year BCE) or the birth of the Sahara Desert. A mere 4 to 5 centuries later things were so bad that populations either flocked around the Nile to become the Egyptian civilization or cross the Gibraltar strait to a vast continent that seemed to wait them. Priceless to see Mp4 video from Katie Manning work (*800).

Meanwhile in Iberia as far as I know, Mesolithic-Neolithic Portugal was a whole lot more diverse than one can fathom. By diverse I mean the people were living in the same place for a long, long time. Paper in brackets above even found indications of family relationship between two females analyzed... 2500 years apart. Or that it was full mtdna K (*511) (over 50%) at least in the Tagus river basin area where later we see the city of Zambujal erected and the birth of the bell beaker that clearly were typically from another stock. That later stage, that late Neolithic (Chalcolithic) Portugal, was full Mtdna H (70%), V (6%) and U5 (10%) but papers I found (*452) forget that at least on inhumation at early Perdigoes was U4. And is important. Because according to the same samples you find U4 in east cultures (see supplements), absent in central Europe cultures (*Rössen culture, Baalberge culture, Treilles culture, etc.*) but present in Portugal (although one also have been reported as Hunter Gatherer south, so earlier, but I still think there is a story with U4...).

Furthermore, if once I thought that the high prevalence of Male Y DNA lineages E1b1b in Alentejo were from Arabic invasions or earlier Phoenicians, now I am not so sure if those arriving were in its majority were in fact the R1b *Shulaveri-Shomu*, but also some equal

proportion of E1b1 (mutation M-81) in the mix. I always find it funny to see in genetic maps (*459) that little stain of this Haplogroup, alongside with R1b, exactly where the Siwa Oasis is. Looks like their destiny was really connected. We already addressed the female component that must have been part of the inbreeding by women being picked along the way an added to the stock of Shulaveri and Berber that later landed in Iberia. Just take a look of L3 that is nonexistent in Europe outside Iberia. So, notably, the existence in Portugal of Mtdna L3 (*678) which is not at all sub-Saharan as other L mtdna that might have come from the slave trade is really a tale of these women when meeting the R1b. The same L3 (L3f3) that is only found with Chadic R1b-V88 nowadays and we know that they were a stock that picked women while in Egypt (see *Suppl - Resting in Egypt*). Look at the run of it : L3f (Northeast Africa, Sahel, Arabian peninsula, Iberia, Gaalien, Beja) , L3f1b6 (Asturias, Spain) L3f3 – (Chad Basin). How did it go from being confined so far east, in the southern part of Egypt and even southern Africa horn regions, also so interconnected to R1b-v88 in Sahel, but also jump to Iberia peninsula if not by being added into a stock of men that travelled but did not root long in the land between?

Centuries of North African exodus and local genetic stratum made the Oestrimni people. And the Oestrimni admix to make the Bell beaker. And the bell beaker admix to make... History throughout Europe. The Iberia peninsula although the birth of the R1b propagation it always stood as a beacon of that initial migration from North Africa to Europe. So much more heterogeneous genetically. And serology and DNA sequence (*477) shows the relatedness of Portuguese, Spaniards and proto-Berber (paleo-North Africans Berbers or Tamazight). The Portuguese still have genes only they possess (HLA-A25-B18-DR15 and A26-B38-DR13), the Oestrimni mark (?) and Portuguese and Basques do not have A33-B14-DR1 (indicating lower Mediterranean admixture). That is the mtdna H1 that they picked up in the works. Measure this HLA with *mtdna* and I bet you have a good chance of getting correlation.

If we consider them all the Oestrimni what did they looked like? There are a lot of papers describing morphology of the western Iberia Extremadura since the late 19th century: Let me give you an overall view of what this people looked like, following the excellent work of Thomas Budner and M D Garralda, especially the ones inhabiting what was the cradle of the Beaker folks. In *Carenque*, right beside the Zambujal Castro, but also true for overall region of Zambujal and VNSP area (Extremadura) and one might assume for all Oestrimini substratum. There were 4 type of People, much alike the ones found in North Africa in this period but not only. *Gracile Mediterranean* (much like the Tenereans people were) *Robust Mediterranean*, the *Highly Dolichocephalous* (*Homo Afer Taganus* - local very ancient people) and *Brachycephalic* (not like North Africa and more like the Shulaveri or if you prefer the stock like those in Merimde and even El-Omari). And, going back to a previous point, for instance in *Muge* (Portugal) it has been creating confusion for over a century that quite a few brachycephalic inhumations were found in the territory of the whole lot more primitive, *Homo Afer Taganus*. They were a very, very old type and very much Paleolithic genotype that occupied the Tagus estuary known by some as the *Muge race* (not really like any other so far found in Europe) and, importantly (most of all to me), lived between the Tagus river and the Sorraia river (here goes this name again) . Well two things link them. The higher than expected Jaw prognathism. The other of my own doing: a lot of *Brachi* in the exact same place were the *Sorraia Horses* (which are Shulaveri *Tarpans* mixed with *lusitano* horses-see in later chapter about it) were found wandering thousands of years later. One wonders. Trust me- All this *Muge* people, Brachycephalic inhumations and strange lithic material (those arrows...), all things out of context, need to be addressed again someday, since most field works and analysis come from the thirties last century (*111). Really this alone would be a sub-suppl on its own (*667).

Consequently, these were the groups coming out through Gibraltar and mixing locally. Men were 1,60m tall and women 1,50m tall (average). Guys south the Tagus River (again the Sorraia & Brachiocephalic region) seemed to be a bit taller going roughly 170m for male and 160 for female. Actually the exact height given by Hoffman to Merimde people (5,6ft and 5.2ft). Only 50% of them reach 30 years old and 20% of them got to be old age. But it surely must have beat the life expectancy and harshness of the one left behind.

About 8% were Hiper- dolichocephalic, 34% Dolichocephalic, 46% mesencephalic, 8% Brachycephalic and 4% ultra- Brachycephalic (*333). So majority were Mesencephalic but found in environments that if Brachycephalic Shulaveri were an elite and higher hierarchical layer that led to Bell beaker folks, mostly because of the influences they had from the brewing of the emerging cultural evolutions of the Levant and now Caucasus, they essentially would not really be found at (since they would tend to be on larger settlements). But the key point is there were a lot of brachycephalic people, at least 15%, much more than, for instance, is found today in Iberia in an average of 5% . And MD Garralda has found a lot more Brachycephalic in Iberia Chalcolithic in other localities and sites than the ones I have mentioned. So the existence of such a large number of these type is actually the contrast we can establish between the current outlook of North Africa which was disappearing and the fresh and newbies arriving to Iberia and the follow up mixture and admixture combinations.

Lots of different people, or tribes, were arriving for centuries to come after 3.500 BC. Especially when provoked by some extraordinary event that changes a place landscape in terms of population as it was happening in North Africa. What I mean is that if current North Africa *Berber* and *Tuareg* , as proto populations of the Sahara region are any indication for the heterogeneity of the populations migrating in an exodus into Europe , so there were a whole lot of different tribes, *Shulaveri-Shomu* stock of several Caucasus region but also local genetic substratum crossing the Gibraltar in roughly same period . Not all did at the same time (obviously) or with the same exact mix of men, women (*mtDNA*), dogs, horses or cattle. I suspect we will see differences in migrating paths for different parts of the Iberia peninsula and the substitution of the local genetic substratum occurred in different timeframes and at different rates so not at all in the same time. And if it meant some auto-identity in-group psychology involved in some of those packs, so by then different tribes also meant tension between groups and ultimately led to the emerging of the warrior occupancy and that led to the hierarchical bell beaker warrior. We will see next how that operated. So an important note is that one should not interpret the empiric revolution of the 3rd millennium BC as exactly the same event everywhere. So already in Europe and leaving all that behind, we will focus next is in a specific area that one can build full similarity with the Kura River in southern Caucasus for the Shulaveri in the Caucasus at several levels. The left bank of the Guadiana River in the *Xerez lowlands* of Alentejo, Portugal.

Enough with this. Papers published regarding chalcolithic Portugal are so vast that only the papers I downloaded will take well into summer vacation to lay down at the beach and read it. Amazing work. They are some many and from so many great anthropologists that one feels overwhelmed.

However the story they tell you is consistent, recurrent, very well described. And if I have to pick one to start with, I would any day of the week pick Simon Davis and Rui Mataloto's paper (*460)

Chapter IV

The Oestrimnis Civilization

Where could they have come? - Very rapidly the numbers became staggering. Just in a small area were they settled first, in lowlands Iberia, south of Tagus (remember Zambujal Bell beaker is north of Tagus) left to the Guadiana river they must have rapidly amount to tens and tens of thousands living together. If the all area, as we will see next, had *cities* and *villages* with urban areas of 500ha like Porto Torrao (SInga), just in this surroundings it must have lived well over 20,000 people. I mean more people than today live in the current place there which is the big village of Ferreira do Alentejo. And just not longer than a decade or so ago nobody knew that it was ever been there. Just imagine by 3000 BCE the life that was established in this overall area of *Singa*, *Perdigoes*, *Outeiro do circo*.... How many people actually must have been living there? How different was it from Sumer, or the pharaonic Egyptians? - No wonder so many people think that what Plato called Atlantis was actually in there (at least one of the realms, others were all over Iberia). Naturally Plato was overblowing a story we overheard is father tell friends while he was a child, regarding a story his own father had heard from Egyptian Priests...

And this had a name. Sure, name given by the Greeks but still. It was called latter on the *Oestrimni* (north) and the *Coinos* (south) people. Actually, if something, there is no VNSP civilization. There is the Oestrimmis civilization and that meant all the south and north of western Tagus River but being the people that lived in the farther western Part of the European continent. Bell beaker was a cultural phenomenon that arisen in the *Oestrimni* context and Oestrimni should be considered the first coalescent territory in Europe of the *Arbins* (R1bs) coming out of the *Shulaveri-Shomu* culture. And again the Greeks told us that they were part of the Iberia of the west and they thought, go figure, it was the same people of the Iberia from the East (in current Georgia, middle of the Caucasus). They thought so, rightfully, because the Oestrimni told them, and everyone who asked, their story - didn't they?

SAO PEDRO AND PARAISO (THE FRONT LINE)

As per referred paper from Rui Mataloto.

Those were the first arriving. Now I know where they arrive from. Followed the Guadiana river upstream until boxed between the river and the Mountains one must take a decision: Follow the river (going eastward and back) or cross the river, turning left and enter what is now Portugal. This is the entrance into the lowlands. And there they stood, in a narrow passage of something between 10 and 20 km, controlling it for a thousand years.

Phases at Sao Pedro, followed quickly. In a small hill controlling the plain, first the settlement, was built of perishable material, so, not meant to endure. Only the rock defense wall was swiftly built. But upcoming phases followed fast, building the traditional Shulaveri Polygonal plan of circular structures with curve or bent walls connecting (...you know the description by now) and always with less than 100 people. Obviously an outpost. Fauna show that they arrive with Horses, Cattle and dogs (that is what I like and there is plenty in this paper). Then they hunt and killed like crazy. Taxa shows the staggering amount of game these people there hunt. Especially red deer and Auroques.

Not enough to control the area. Not long after another walled settlement up north, Paraiso (paradise), lock the entrance on the other side of the entrance, near the next barrier up north (*461) a mountain that blocks passage. So, Sao Pedro by the river and Paraiso fortress locking the entrance further inland and north. Paraiso seems to have taken the biggest visibility (either violent or just peacocking) as reported by Rui Molototo the staggering number of small settlements that popped and disappeared. Something also reported in other sites eastern of

the fortified settlements. No wonder there were so many horses there. We now that the horses there and in Sao Pedro were not meat but used for *Shot horsing*... so, soldering. Didn't farm, did seem interested in pastoral activities.

What were they keeping this passage to and from who? - Because they let some people pass. For sure. Because just south and farther west, following the plain, there was a city developing that I will address later. Was the *Porto Torrão* (just the name of the area) were the first gigantic city of the west has being built, the huge city of *SINGA*.

But let's not go there just yet because, for our purposes is important to talk about the other place where they locked the other river passage...

THE TRIANGLE OF LIGHT (PORTO DAS CARRETAS, MERCADOR, MOINHO DE VALADARES)

See, while *Paraiso* and S. Pedro controlled the entrance to the plain, further south there is place where river passage is (and was) easy. So right on Top of it in a hill it was built a fortified settlement. Built with walls from the start. This was undoubtable built as a fortress like the other two. *Porto Carretas* is all about horses, hunting, arrows and blades. The reason I like so much this triangle of light, is because, like the sites we saw at the Caucasus (*Shulaveri gora, khrimis gora e irimis gora*) also this 3 sites seem to have a total dependency and hierarchical function. *Porto Carretas* was the fortress, farther back was *Mercador* as a cattle raising and butchery and further back agriculture from *Moinho Valadares*. ...Papers...

What marks all this places is the amount of horses. You don't record this amount of horses even in Zambujal or Singa or anywhere else for a long time. I like the mercador because it marks the first place I read about the *Baffling horse problem* - See, if there is something unresolved in 40 years of anthropology in Portugal, and is common to most if not all the papers I am here mentioning... Is the Horse. This horses here, are not like the Pleistocene horses that existed and not like the Bronze and iron age horses... So, they all, all, go on a spin trying to figure out what those were. Not Ass, not hydbrids... but horse although smaller (Tarpan!). Yes, the R1b, shulaveri arrived with Tarpan Horses. Not the best horses in the world when compared to the beautiful big and docile *Lusitano horse* breed, with which the bell beakers conquer Europe. The Tarpan were left wild and became the Sorraia wild horses... Sorraia river is just 50 km up north from here. Brutal. - There will be a full chapter about Horses, another about dogs and then grapes with loads of papers. Let's not ruin the events here.

SAN BLAS AND LA PIJOTILLA (THE OTHERS?)

What where they protecting against? To assert that those outpost where protecting against *San Blas* and *La Pijotilla* feels weird (these two are in Spain and the others in Portugal). However, there is a river and we know how the story of man are divided by rivers. AC Valera and Odriozola have already establish the following (*463 or *464):

*"In this work we study by physico-chemical methods (INAA, XRF, XRD and TL) the production technology and the consumption of 200 sherds of Bell Beaker and decorated vessels from 4 of the largest settlements throughout all Iberia and that are found alongside the Guadiana River forming **part of different networks** (La Pijotilla, San Blas, Porto Torrao, Perdigões) as well as medium size sites (Monte do Tosco, Molino Perdido), in order to stablish cosumption and distribution patterns within the pottery production of these sites."*

So PCA or Ward Analysis on pottery and sherds clearly separates these networks. We don't really know much about their interaction but these 4 dominated the early stages of the III millennium Iberia. La Pijotilla (80 ha), San Blas (50ha), perdigões (50ha) and Porto Torrao (Singa like I prefer to call it -100ha)

And no doubt, as seen earlier, there are 3 major *military* outpost marking the passage San Blas are the ones that couldn't turn left up stream because of *S. Pedro* and *Paraiso*, couldn't turn right because of *La pojitilla*, couldn't cross the river earlier because of *Porto carretas* and *Mercador*... so they just stood. From *Porto carretas* fort one can see *San Blas*, and *San Blas* is also fortified as it is *la Pijotilla*. But from those 3 fortified settlements on the left bank river with a lot of horses and archers to the west, the huge settlements (Singa and Perdigoes) are not fortified.

Anyway, Tina Thurston and Roderick Salisbury (*466) establish very convincingly that there was a territory on the left bank and another on the east bank of Guadiana with different characteristics and identity of the producer and consumer of pottery.

SINGA AND PERDIGOES (NO NEED FOR DEFENSE WALLS)

To understand all this movement of people, and I can't stress this enough, one should look at a hypsometric map (mountains, lowlands, etc.) of the Iberia Peninsula. It's really obvious why things were as they were. And also why one should therefore be very careful with any characterization of the Iberian Peninsula as a monolithic thing.

Crossing Gibraltar it's really intuitive just stop at the vast lowland and that is why the chalcolithic "city" of *Valencina de la Concepción* is in there when you look ahead and there is a mountain range in front of you. Also turning eastward populations just followed the plains and then farther ahead bump into high elevation again stop, and the "*Marroquíes Bajos*" stood there where Jaen is today. Turning south, there is a narrow mountain passage and you end up in *Los Millares* back in the Mediterranean Sea. Great place to be defended. From land they can only come from one place. Those guys must have had a lot on their hands between then looking by how keen they were of defense walls. Or not. Those walls were just meant to push away the incoming populations that were being pumped out of North Africa by the Desertification and arising of the new Sahara Desert. Those were probably really pumped up (pun intended), stressed and not at all in a chatting mood. I imagine that these 3 have a story of their own.

Anyway, cross Gibraltar and turn west, bump into Guadiana river (actually real name is Odiana) and if that one is as big as it seems to have been so couldn't easily be crossed there (Algarve region had no Chalcolithic at all) and you have no choice but to move north following it. Apparently easier to cross up north, you do just that and one enters the widest, biggest plain and lowland of all Iberia Peninsula. That thing covers half of Portugal (south). Right in the middle probably the biggest "city" of the chalcolithic Iberia which is what archeologists call PORTO TORRAO but actually one should do the honor of call it what the locals (some at least) call it themselves and want to change the name of the current village to – SINGA (Singa radio, singa pharmacy, sing ball, Singa, singa).

That *thing* was huge, not at all smaller than the cities that were being built in Mesopotamian, such as Uruk or Ur (people never seem to agree on how big it were). 100ha would see around 10 to 15 thousand people living there. Half way between Singa/Porto Torrao and the fortified warrior settlement of Porto Carretas lay Perdigoes (30ha) that so much international attention is having the past decade.

And these sites are all about also Ditches and enclosures. I imagine common in several neolithic (chalcolithic) places (I don't know) but I always remember that several papers about the Shulaveri-Shomu and related to their big places, the ones that also seemed to beacon the rest of the settlements, like *Aruchlo* or *Kamiltepe* or *Mentesh Tepe* also mention the ditches that merge into channels (enclosures actually) and thought to be irrigation channels.

Perdigões is just a puzzle. It was essentially a spiritual place that attracted people from all over. Thousands of Pits, large trenches 3.5 meters deep and tens of meters wide. It must have taken an astounding effort to accomplish. And the way they did it, frenetically digging old ones and filling.... Just weird. It looked like a place people went through on their way to other places. Lots of Ivory and dental morphology showing that a lot of people had come from North Africa (*776). PCA analysis puts those in an axis of increase and decrease proximity with North Africa and less but still valid proximity with later pre-historic Italian peninsula populations known (notorious lacking any similarities with Oriental Mediterranean and North Europe). So when (and if) we start getting Y polymorphism from the inhumations and it comes out with a lot of E1b1 it should really be no surprise. However remember that *Perdigões* is riddled with decorated horse phalanges as figurines matching and at exactly the same period other R1b's were doing in the eastern part of the Volga, the *Botai Tersek* (for which they were known for). And remember this earlier than the ones that is reported in literature for bell beakers. So there should have been at least as much of this genetic Haplogroup as R1b. But R1b would be an Elite that had bred rights over most of the female population and at the end it showed. Two Portuguese regions have lots of E1b1 (M81) precisely Alentejo and Santarém which is the "route" in which the bell beaker used on their way north. Europe is under sampled so I figure there will be a lot more Chalcolithic E1b1 in Portugal, Spain, south of France and north Italy than exists today...

On a note, it should not be a surprise that two top northern Spain regions, side by side, one shows the highest value for R1b in Europe (Basque) and the next door the highest for E1b1 (Cantabria) in the *Pasiegos* area. It's a story on its own. Being mutation M-81 just 6000 years old it's from this time that they ended up there. Clearly different people with different phenotypes.

All in all life was good in the plains. Perdigões, that had people coming from all over, clearly shows a puzzling lack of *Dental Enamel Hypoplasias* that chalcolithic Inhumation display and which were so more common in earlier populations and very common in Bronze, iron ages or even much later times. It meant that food was good, no severe diseases, nothing that shocked the body into making those line marks in the teeth. Actually a trademark also in the Shulaveri, that led Lyonnet to write "*No trauma or specific pathologies, especially no strongly marked hypoplasia of the teeth enamel Lyonnet 2015*". There were on the other end a lot more cases surging of skeleton stress effects due to hard labor carrying weights. Doubt it were from the "elite". But also more dental caries and notably one finds signs of trepanation abound in Chalcolithic Portugal. As we know were practice in the neolithic Caucasus where some of the oldest signs of this skull surgical operation was actually found. And not just in Perdigões. Same is true up north in Zambujal. While oldest trepanation is mentioned as in France 6,500 BC, the second one is actually from the land of the Shulaveri 4000-5000 BC, and with signs of surviving as it happens in Chalcolithic Portugal (French cases are strange. Forty crania in one site of a total 120... what was that? Mass surgery going wrong?).

The region must have been, if those population had any aesthetic feelings been a site to be looked at. The Alamo Lowlands, the Xerez Valley, was covered at that time with the semi-Deciduous Oaks forests, and what a sight it must have been at that time when the oaks turn

golden (from autumn to spring) and the region was a sea of golden and reddish hues. Anyone who at present days have had the chance of looking into an area with Semi Deciduous Oaks understands what it means.

3 to 5 centuries later the *Castros of Zambujal* and *Vila nova de Sao Pedro* (VNSP) were being erected on the other side of the river. The big one, the one that owns the Iberia Peninsula the Tagus River.

This was the *Oestrimni* civilization. What kind of name is that VNSP (?). were the people that had to flee their homeland in the plains of the Caucasus because of an attack of the serpents (Ubaid). They were the descendants of the *Shulaveri-Shomu*. Although later the Greeks and Romans only called Oestrimni north of Tagus (because of Lisbon) and the southern part were called the Coinos, truth is they all were the *Oestrimni* (people of the far west") in Latin.

Tagus is the river the bell Beaker folks, the Arbins , bearers of genetic haplogroup R1b (already mutated with P312, L11, L21 and DF27) started to move north to became the genetic patrilineage that mark the existence of the western Europe, from the British islands, Northern Europe even reaching the Baltic or the Slavic Hungary where they meet to southbound cousins from the other side of that river, either the Volga or de Dnieper. The Arbins met the Aryans. The bell beaker met the Corded ware. Or as I truly rather see it, the *Oestrimni* Archers culture (OAC culture) met the Battle Axe Culture. We should know that by now, shouldn't we? They, both, built the first iron wall didn't they?

Suppl I

THE SERPENTS ARE COMMING *They who populate our nightmares*

They were all wrong. All.

However it's remarkable how it was all explain by themselves to *Periplus*, for instance, when he was in what is now Lisbon. And *Periplus* wrote it. And later Avienus wrote in "Ora Maritima" citing him.

Usually is put like this:

"...the fourth century CE Roman poet on geographical subjects, Rufus Avienus Festus, in Ora Maritima ("Seacoasts"), a poem inspired by a much earlier Greek mariners' periplus, records that Oestriminis was peopled by the Oestrimni, a people who had lived there for a long time, who had to run away from their native lands after an invasion of serpents. His fanciful account has no archeological or historical application, but the poetical name has sometimes been ambitiously applied to popularized accounts of the Paleolithic inhabitants of Atlantic Iberia "

If you are a Portuguese History fan, history is the roman period starting 200 BC and whatever happened after. So in the fog of "don't know don't care" usually there is the reference of the Lusitanians by which the Portuguese themselves self-identity in reference to the mountain people up north that fought the Romans longest. The Romans said that there... lay a people that do not govern themselves nor let others govern them.

So references earlier than the roman period in the peninsula is usually to a very diffuse Cynetes that had developed a written language leaving stelae mainly found in the south of Portugal... and if one tries go further back in time, pre end of first millennia BC, and there is almost a Blank slate, as if there was no social or territorial structure and there is a very faint mention to the *Oestrimni* and *Coinos*. Try to google it see how little there is about them. Yet I think that they were the ones that really were the bell beaker origin and the true referential point to the R1b that came from the Caucasus.

And books about ancient greek mariners state things such as these:

Before 530 BC the Greeks had made an exploratory voyage from their colony in the south of present day France. It was known as Massilia in those days, and is now still the thriving port of Marseilles. The expedition visited Tartessos, with which town they had exchanged trade since about 630 BC. There are fragments of an ancient manuscript known as the Massiliote Periplus which were quoted in a poem by Festus Avienus in the 4th century AD. It tells that the Tartessians went far north for their trade, perhaps as far as modern Brittany, and to two large islands even further north, known as Ierne (Ireland) and Albion (Britain).

That is what we now call the bell beakers and its propagation of R1b throughout Europe, isn't it?

And the Romans citing the Greek great mariner Periplus stating related that this area.

*"Oestriminis (Extreme West in Latin) was peopled by the Oestrimni, a people who had been living there for a long time; **they had to flee their homeland after an invasion of serpents.**"*

What homeland are they referring to?

Could it mean the Caucasus that led to their exodus? Why not? ... On a personal note, after writing the previous paragraph, it took me 10 minutes, not longer, to find out that the Ubaidians (that preceded the *Uruks* and *Sumerians* (Mesopotamia)), clearly involved in the Shulaveri disappearance, are actually known as the **serpent people** (!) remember in chapter I I wrote *because down south it was brewing the Ubaid period and they were moving north making the SSC old stuff.*

They even modified their skull from childhood to look more like snakes and portrayed themselves with large almond-shaped eyes like snakes (suppl X chapter...):

"They come from a pre-Sumerian people—the Ubaidians. These hand-sized statuettes usually depict lizard- or snakelike people in various informal poses, such as holding and suckling a baby. Others are portrayed wearing shoulder padding or armor and holding staffs or scepters. It is the elongated heads and almond-shaped eyes that lend the figurines their reptilian appearance, leading many to believe that they depict serpent-related gods..." Have fun (<https://www.youtube.com/watch?v=3A1qe2Oy-hI>)

And, why not, remember that at the slowness of prehistoric times stories and legends endure. All chapters of books about the Ubaid period, have titles such as "snake in the grass", ophidian figurines, etc. Google yourself Ubaid and see the pics and one immediately understands. Google *Ubaid Crania* and you will see the serpents that invaded the Shulaveri and made them flee.

That is why the Greeks, after trading for a century with the people in what is today Portugal described what is nowadays the city of Lisbon...

"Ophiussa, also spelled Ophiusa, is the ancient name given by the ancient Greeks to what is now Portuguese territory near the mouth of the river Tagus. It means Land of Serpents."

And I guess the Greeks learned more than that didn't they? It was so obvious, for instance for the Greeks called the southern part of the Caucasus... Iberia. Not a coincidence, of course. It makes no sense. Therefore the Greeks knew that the people that lived in the *Oestrimnis* were the same people that lived in the Caucasus. Except that when they figured that much, actually the people that were living in the Caucasus were of a completely different stock.

What really happened was the following.

The Caucasus and middle East had several Haplogroups and several stocks of different people. To make it simple, the Shulaveri-Shomu people were people that had spilled from the northern Caucasus to *this* side of the mountains. Or maybe just around the Caspian sea and settled there when bumping again into the mountain. I don't really know. However just on the other side of the mountains there were plenty of R1b as it, I think so, on this side of the perpetual iced Caucasus Mountains. But it means that everybody that lived north of Lake Van (might eventual

have been R1b and those are the ones I call the Shulaveri, although Shulaveri itself is the only the northern part, next to the Kura river, and the ones with the traits we have been referring in this thesis more deeply clear. But many of the people living south of could also have been R1b more notably really near Araxes river in Kultepe-Nakhichevan or Aratashen and today are already considered as Shulaveri in opposition to sites near the heart of Shulaveri shomu that show different traits such as the Kml-2 culture. We will see in the future if ancient DNA is extracted. So lots of pre-bell beaker type of castros, not fully walled (most just half walled) and overall as we have seen a very sort of self-centered, sturdy, rough and seemed actually very psychological robust. Not friendly that is certain. That impregnated individualism in the architecture but very collaborative inter-site with specializations, great hunters, obsessed with long prismatic blades and the master of archery. Overall they were the masters of domestication. Either plant or animal. They master it. Apart from that... not at all a complex, elaborated, confabulated or creative force.

If you look at a map it's just a 200 km radius of movement where they were allowed to live free and roaming with their cattle and dogs on the back of their Tarpan horses. Not even getting as far south as Lake Van.

By 6000BC Shulaveri were already formed as a full package of plants and animals domestication. By 5500BC it was their apogee of sorts and by 5000BC they were pretty much gone.

Now, bellow Van Lake to the left there were the *Halaf Culture* that span from North part of what is today Syria, east Turkey until Taurus mountains and part of north Iraq. Next to it and a bit to the right we had the *Hassuna-Samarra* culture.

And south of this all, into the southern part Iraq by 5500 BC started the Ubaid period. And they were evolved, complex, strange awkward, delusion and all the adjectives one can muster to describe a people that saw themselves as serpents, that did extreme crania deformation since infancy to deform the crania and make it look like serpents. They did had something elaborate and fermenting something that clearly went beyond what was the existence of people until then. I mean, this the people that led to the great civilizations of Mesopotamia, to Ur city, Sumer and the Sumerians that invented writing. So real evolved. And a whole new ball game in the planet.

Deformation of crania was not a localized phenomenon. It was seen very fast at Samarra people and it lingered for ages in the region, so much that even in places like Ganj Darra in Iran, into the 9th-8th millennia BCE, so millennia later, lots of inhumation where found that represented a large part of the whole, and that actually had crania deformations.

Ubaid was a spread of something that could bedazzles lots of people and so not a stretch to see peoples around to subdue or embrace to. However apparently not the tall, sturdy guys a bit north than that.

And it was violent.

There is a note from Emmanuel Baudouin in "*Mentesh Tepe, an early settlement of the Shomu-Shulaveri Culture in Azerbaijan*"

*This description of the architectural elements would not be complete without the mention of a thick grey e blue layer (~10 e 20 cm) **OF ASH** with very small inclusions of **charcoals** that has been identified over a large part of the Neolithic level of the settlement. In some of the buildings, **it clearly separates the two phases of occupation (Neolithic from Chalcolithic).***

And by chalcolithic it was the Sioni Period, not at all resembling the Shulaveri. There was new and changed everything from architecture do social legacies.

It was a storm of serpents. These Ophidian people, could (and I think it were) the Samarran just a bit south. Samarran is dated 5500 BC to 4800 BC so just at the right time to be the culprits. They were the serpents that did the dirty work. They were the ones that prior to URUK showed snake figurines. And that is why it is found Samarran painted pottery in those later layers of Shulaveri-Shomu as out of place or outliers pieces of sherds and pottery. To the legends of the roaming Shulaveri, they were expelled from home by the serpents that were actually after the sources of Obsidian or even copper layers.

Uruk, the follow up of Ubaid, in Chalcolithic were found even behind the Caucasus Mountains into the north Caucasia. And as the Sioni culture appeared in the previous Shulaveri, on their way to be Kura-Araxes culture the Shulaveri were no more. The really surge in the very beginning of the 6th millennia and were gone by the end of the 6th millennia. Then found heavily on the Merimde sites at the Nile Delta where by the end of the 5th millennia they were also gone leaving behind a legend that still persists in Egypt that the peoples of Europe were actually people that fled from Karnac and Luxor (weird legend anyways). 4th millennia saw the birth of Sahara and the events that followed really sent them to Southern Europe in Iberia by the last centuries of it in huge numbers mixed with other fleeing people although they should have been in Iberia in not large number since not long, couple of century, after leaving Nile Delta by 4000BC. 3rd millennia saw them conquer Europe as the Bell Beakers, 2nd millennia as the warriors of the Iron age fighting through Europe, then 1st millennia as Etruscans, and later Romans and the rest is history. Anyways the more they moved away from the center of their coalescence point, Portugal, the more they became genetic diverse by interbreeding with women of other autosomal DNA and ended up making western Europe.

But for a long time they didn't forget the snakes that did them wrong. So they told everyone about it.

SUPPL II -

RESTING IN EGYPT

From pool to pool, so travelled the sons of the L278 subclade

The Sinai was always too arid to allow agriculture. And apart from it all if there is something we also can effortlessly attribute to *shulaveri* is that they were - land lovers. They never abandoned agriculture no matter what other forms of subsistence they use. So from the Middle East where they were being kicked-out the next point to look for them it had to be near the Nile River.

Before that I had to look for them in the Jordan valley or above that. It's all too difficult. Nevertheless they are there. If not in any other site, they were at the right time in Tel Tsaf. It took until I found "A Geological Investigation of Storage and Surplus at *Tel Tsaf, Israel*" by Emily Marie Hubbard that I found my *Shulaveri*. It's not easy because they didn't stay for long so are always buried in some intermediate phase (Hubbard shows that delightfully). But they are there. The *Cultura dos silos* and round dwellings and overall very precise architecture and in-settlement burials, awls, that copper awl that this paper (*476) directly relates to copper awls of the Shulaveri in Georgia, at *Aruckhlo*, and lots more that exists in the land of the Shulaveri but do not exist there (Obsidian, copper, etc) ... and beads, lots of beads. Follow the timeline, they were there by 4900 BC. Oh yes there was my *tarpan*s horses, dogs, the cattle and all the pattern we already attribute to them (*919). Again then they disappeared.

In Egypt one first notices *Faiyum*. After a thousand years of solitude in the area, after the *Quruni*ans, it suddenly pops *Faiyum* culture between 5500 BC and 4500 BC being the first Neolithic *mise-en-scène* near the Nile. At later stages one tracks some potholes indicating settlements and lots of hearths. Also finds the domesticated cereals and cattle typical of Caucasus/Levant. And intriguingly most sites look like and are reported as a passage for cattle herders. Actually cattle numbers only incur probably, as Fayum terminology, at Kom K and Kom W sites, hence 4600 - 4400 BC, which means it really was the Merimde taking large stocks to the big *lake Qaroun* before taking it back home northbound back home to Merimde and El-Omari. Fayum was south of lake and KOMs are north. They came from elsewhere because domesticated cereals and cattle was not local and actually was all too transient, by 4000 BC all those sites were abandoned and they had moved on. Fayum sort of fits the bill but... Too little and didn't really tick me fully as *them*.

It was only when I found *Merimbe (Phase II)*, *Maadi* and my favorite *El-Omari*. Dates of 4,700 bc to 4,200 bc really fit the bill. "My" *Shulaveri* - Small round houses, with mudbrick circles, made of wattle and daub/Pisé, with shallow pits, storage pits in silos and hearths, lots of arrowheads. So, houses of 1.5m (silos) and over 3m (houses), Mudwalls connecting (pise). Silos (authors called here granaries) were associated with individual houses... and dogs. Many references to dogs and the fact of Merimde showing the oldest Dog Burials found in Egypt. And remember that those few studies of Crania and skeletons refers to Merimde stock people as.... Round head tall and lean people (Hoffman 1976). So most likely brachycephalic.

Merimde is from the offset a full Neolithic with a fully developed Neolithic; ceramics, farming and herding supplemented by hunting, gathering and fishing. And the houses, the earliest houses found. Always the individual houses. And never forget ...never seem, apart from Caucasus *Shulaveri*, contracted sideways burials always inside the settlements. A total novelty but old school *Shulaveri*. And I must assume that if there is still a small light flashing at the back of my mind in this investigation are ... Beads. And knowing from the start that

Carnelian beads were hallmarks of the Shulaveri Burial, finding so many references to Merimde burials with Carnelian Beads (which usually is given as sign of trade because there is no carnelian in Egypt) and finding carnelian (cornalina) in Chalcolithic Portugal burials....really still puzzles me. And carnelian beads are like a bread crumb I personally am constantly on the lookout for.

As far as I have read. Polish arrowheads, known as *celts* (name telling), were only found in Portugal and later in Irish sites, hence the name. In book *History of humanity: prehistory and beginnings of civilization* by *Sigfried Laet*, it states that *celts* were also part of the Merimde settlements.

And by now you know that I am all about horses, dogs and so forth. So they had “*Horses*” and dogs. There are several papers addressing dog remains. There are more papers addressing the horse/Wild Donkey. And because horses skeleton analysis is really hard to establish differences between sub-species, so nobody should take as a coincidence that the lengthy discussions about *Equus Africanus* in Egypt, starts with finding *Equus* remains with *Marimbe* and especially those found buried in *El-Omari* settlements (*122). Make no mistake. And the fact that, those found with Merimbe (Tarpan?) were actually bigger and larger than the *Equus Africanus* (where they?) in latter dynastic stages (which they owe to domestication) it makes lengthy explanations that sound like mind gap filling in arguments. Horses were a rarity in the region. A rarity that even when found is exactly at time we address in this context. Going back to the Shiqmim horse puzzle near the Sinai. There is always a Horse baffling problem in the path of the Shulaveri. Reading several books it usually says:

“Finally the recent exciting discovery of those bones (equus Caballus) in sealed chalcolithic deposits at Shiqmim indicates the introduction of these animals into southern Levant as early as the late fifth/early fourth millennium...”
in “Near eastern archeology” from Suzanne Richard.

Again, and so early, the *Horse baffling problem* that I reported in North west Africa Supplement III and in Iberia/bell Beaker Chapters (loads of horse *problems* there). Although it doesn't mean that specific cases reported in lower Nile are really all of them misinterpreted *Tarpans* as *Equus Africanus* - Shulaveri were masters of domestication, either plant or animal, that was how they were defined. And an *Equus* is an *Equus*. So they supposedly knew how to tame those even easily than the untreatable aggressive Tarpans (lousy horses they were). Anyhow remember, although pastoralists and agricultures no earlier site show any horse, *Equus Africanus* or whatever. Not in Nabta Playa, nor in Tibesti or Uan Muhaggiag. None before Merimbe/El-Omari.

Anyhow the paper sets a start for the finding of those animals in the settlement context. From Paper:

*“the earliest remains **thought** to be donkeys were identified on the basis of size and archaeological context and are thought to date to late 5th millennium and the first half of the 4th millennium B.C. contexts in the Egyptian prehistoric **settlements of El-Omari** (ca. 4600–4400 B.C.), Maadi (first half of 4th millennium B.C.), and Hierakonpolis (ca. 3600 B.C.) (18, 25–28).”*

Ok, I might have found *my* Shulaveri Tarpan “*Horses*” amongst some captures wild Donkeys.

El-Omari helps because it has a very narrow dating. 4500BC to 4200BC meant those days a brief refill stop. Very specific. And By these dates their homeland was already *Sioni culture* turning *Kura-Araxes cultures*.

If one looks at a Map, all those sites *Merimbe*, *El-omari*, *Fayum* (just the KOM sites to water the cattle) in northern part of Egypt are really in the pathway of arriving population that just stopped near the big lake *Qaroun*. The Fayums were east and south of the lake but the *Merimbe & El-Omari* were north of the lake and probably when had to move (for whatever reason) they moved west. The earlier R1bs that were east south, might have tended to move south facing the already heavy and numerous pastoralist societies that had stem out of the *Nabta Playa* and north bound, making the *Badarian People*. Bad luck I guess. Because it was the midst of *Badarian* and *Tasian* and *Naqada* cultures and peoples. If I had to trough out there a reason why they moved away would bet on the *Badarian* mix with possibly some *Maadi* North people and *Neqada* people south troubles, that started to wage conflict with each other that later we know from the Pre-dynastic stories that led to the Civilizations we all know today. So the stories of *Scorpion king* and *King Namer* and the unification of reigns that led to pharaonic period. Consequently, it's not really difficult to see lots of aggravation for an outside people that looked different such as the *Caucasian Shulaveri* in the eyes of very much autosomal mixed people that were the substratum of the region.

And I think *Merimde/Al-Omari* up there really north near Cairo had to move West again, like it had happen in *Caucasus* and probably in *Israel* to the next "pool" in the *Tassili* and *Hoggard* mountain range in *Libya/Algeria*. That is the next supplement (Suppl 3 - Exodus to Iberia). The earlier, most likely from *Fayum* if mixed with R1b, had moved south east. So the rest of this chapter is about the ones that stood or moved south. The ones we might associate with R1b-V88.

Like I said earlier *Fayum* moved, south and were trying to move south. Which encompass most of what I thinks is the grand part of the R1b-V88 ending up in *Chad* and the rest of the sub-Saharan region where even today R1b is the mains male patrilineage. So will just leave the guys up north alone, those that move on to the west. Because those are different stories. This is probably the story of earlier, directly descends from the *Fayum*, as the others, the ones that end up in *Iberia* and later all over *Europe*, where the descendants of the *Merimde* and *El-Omari*. The *Maadis* I think also stayed behind and are probably part of the story of the *Siwa* oasis. There must have been an interesting story between them and the *Badarian* from the south. See, south (or upper Nile --- people tend to think upper is north but is actually south) as a more populated area and with a lot of sub-Saharan black genetics must have not have seen the *Tallish*, slender and fair skin *Shulaveri* with appraisal (they were the others). I most tend to move way some stay. And fight and died or just play dead or submit.

And what you read out of those places in the south, on their way to *Lake Chad* it translate exactly that. At *Merimde* sites, the *Shulaveri* were owing the terrain and thought they would settle, therefore, made dwellings and crops and herd their stocks into the *KOM* sites for pasture, and party (at least it looked like it by the amount of animals killed in there). But for those guys father south it didn't look like it.

Let's set the record straight. The farther south you move the foggier this all is. The only reason why we go there is because still today it's a way to *Chad* and *Cameroon* were the highest number of R1b-v88 are still found. Some populations are still today 80% plus R1b.

So in middle *Egypt*.

Farafra Oasis (*Qasr Farafra*) and *Dakhla Oasis* - Remember, people tend to flocked around the *Nile* but not these people. This *Oasis* is really curious. Its 300 km way from everywhere: From the *Nile*, from the big lake *Qaroun* up north. So it was a travelling point away from confusion and conflict. For some reason it was called in the 5th *Dynasty* the *Land of Cows*. And through the period never even denoted *Pharaonic* marks whatsoever. When climate change finally arrived some of those wet *Sahara* populations flocked to the *Nile* and became also started the

pharaonic process, but prior to that, or even during, some must have moved even farther away from the complex forms of contact and social interactions that were in the brewing for the Nile river populations.

This region was always occupied. For millennia. It was like a refuge. Then middle Holocene, arrives the more sedentary populations (4500 BC) at site like *Wadi Obeiyid /Bahr Playa* and starts plant cultivation. Lithic assemblage shows the staggering amount of population increase the area had from that point on, people dedicated to the extensive exploitation of wild cereals. Of particular interest is the Hidden Valley in the upper part of Qasr Farafra. - This shows a 2000 year long occupation, starting from around 5000 BC and ending by 3,000 BC. With several layer of phases from heavy agriculturalist, more cattle and later arrowheads. Most important, Round Huts with a solid circular base (circular Hut Foundations) with Hearths inside, clustering together as family nucleus, in important strategic places of the Valley (all in 397 and *398 and *399). Nevertheless it wasn't a good place. Very sensitive to the climate fluctuations and when the final *aridification* arise it was not a good place to be. So many flew south, many west. That is way we have the Siwa Oasis with still 30% R1b male lineage. And some didn't stop and meet up with Merimde R1bs probably on their way already to refill the stock of women from Mtdna H. Many went clearly south (as we know by the R1b blob in Africa).

Even vaguer...

farther south, also way from the Nile is *Nabta Playa* with Round sub structures (over 4m), inside Hearths, storage Pits, domesticated cattle, cereals, pottery, beads... So more the same. However there might be something "off" about Nabta. Nabta might have been a ceremonial site. If someone wants to figure why Perdigoes was even erected, how about this :

Around 4800 BC a stone circle was constructed, with narrow slabs approximately aligned with the summer solstice, near the beginning of the rainy season. More complex structures followed during a megalith period the researchers dated to between about 4500 BC to 3600 BC. Using their original measurements and measurements by satellite and GPS measurements by Brophy and Rosen they confirmed possible alignments with Sirius, Arcturus, Alpha Centauri and the Belt of Orion. They suggest that there are three pieces of evidence suggesting astronomical observations by the herdsman using the site, which may have functioned as a necropolis. "The repetitive orientation of megaliths, stele, human burials and cattle burials reveals a very early symbolic connection to the north." Secondly, there is the orientation of the cromlech mentioned above. The third piece of evidence is the fifth millennium alignments of stele to bright stars.[8]

They conclude their report by writing that "The symbolism embedded in the archaeological record of Nabta Playa in the Fifth Millennium BC is very basic, focussed on issues of major practical importance to the nomads: cattle, water, death, earth, sun and stars." [8]

Malville, J McKim; Schild, R.; Wendorf, F.; Brenner, R (2007). "Astronomy of Nabta Playa".

Ok, Just food for thought.

Getting *muddled*... Into sub-Saharan Africa or how they came to be in the Sahel. Nobody will really cover this story until meeting Scott MacEachern and reading *The Prehistory and Early History of the Northern Mandara Mountains and Surrounding Plains*.

Everybody seems to dismiss R1b specific mutation R-P25 found strangely and oddly here in some of this tribes, as we today find mutation V88 as well, the truth is only R-P25 was found and later mutations V88 can also have occurred. But also bearers of R-P25 might just be

bearers of that mutation that actually have up north mutate to R-M269 (European subclade). So, it could mean that M269 (European) is a mutation of R-P25 (from R1b1a, R-P297 off course).

I would assume that if one really finds inhumations that supply good enough DNA, will in fact find Mutation R-P25 and R-P297 and V88 in settlements of the Northeast Africa most important late neolithic Oasis and mountains. But with different routes.

From the Farafra Oasis, 600 km southwest of Cairo, those R1b picked-up women, lots of women with African dna (L3f3) and actually it's exclusively found there and nowhere else in sub-Saharan Africa, but also found at very considerable amounts in Portugal (Pereira et al) and we're talking about the L3f it self (other might have come from slave trade). And this south same bound populations have no U6 women the Haplogroup that marks North African women. That is because *U6 women* were found further west and not in the Nile river region where they pick women (*alongside with Loads of Mtdna H, the future west Europe clades*). Later moved from sites such as *Qasr Farafra* to coalesce in the norther part of the *Mandara Mountains* of Chad (and I will avoid Chadic linguistic and avoid the tales of the *Sao people*, the giants that were the forefathers of the current tribes that overtook then... don't even go there although Scott MacEachern *knows* by now there is a movie in there... If it weren't for the political correctness that mark current times.

For a while I didn't get why that people would be more resemble to the Southwest Egyptian guys then the one just dropping down from between Tassili-n-Ajjer and Tibesti mountains or Ahaggara and Air... there was so many people there. But then read *Origins of African Plant Domestication*" and figure that land northern of Lake Chad, the Pays-bas was not really suitable for habitation at that time so no R1bs with U6 women moving to that area. So, that is how you know they come from the northeast.. and then history is , at least for me at this point, very blurred in the smog of the very ancient "giants" that led to the SAO-Kotoko people or in the intricate of the Chadic languages (<http://i51.tinypic.com/ri7s76.png> or <http://i.imgur.com/fJaBm.png>) to see the blue r1b color on Kotoko) .

Anyway it all fades into oblivion of unexplored traces for 3000 years (maybe one day a sub-supl chapter will arise here).

Nonetheless the story although unclear, is one of Horses, dogs, fights and ... Round Huts that cluster together in nucleus. Yes, foggy, but I guess not to people like Scott MacEachern, Claire Bourges or Maureen Reeves that for sure have a clear understanding then they really say. Any of it went unimaginable until just a couple decades ago. One can always read *"The politics of house shape: round versus rectilinear domestic structures in Dela compounds, northern Cameroon"* by Diane Lyons if has the time and see how it all shaped the mind.

SUPPL III

EXODUS TO IBERIA

Plight of the P297 mutating to M269?

DRAFT

The stepping stone to reach Iberia Peninsula didn't seem to have made any lasting mark in what is today Morocco but one might infer that it jumped from places in the mid north Africa. If one talks about exodus, one piece of the puzzle needs to be cleared from the offset. Take a couple minutes to see the Mp4 animation from one of the most important paper I manage to find:

*Our analysis reveals a major demographic event with a significant departure from the null model ($P < 0.0001$) coinciding with the AHP, between 11,000 and 5500 years BP (Fig. 2). The first statistically significant period occurs around 10,250 years BP, albeit only for a brief time, followed by a second peak in population around 9500 years BP, and a more sustained growth trend until 7500 years BP. Between 7600 and 6700 years BP, the Sahara appears to have undergone a substantial population decline, which is consistent with records of occupational hiatus in the Tenere (Sereno et al., 2008). This is followed by a rapid recovery between 6700 and 6300 BP (**with the help of the Arrival of Shulaveri fleeing the Ubaid**) at which point population levels reach their relative optimum. Despite smaller scale fluctuations until 5500 years BP, this resurgence of Holocene populations appears to be only temporary, and is quickly followed by a major, and irreversible population collapse occurring between 6300 and 5200 years BP (**Shulaveri R1b moving to Iberia after fleeing the URUK**). Subsequent to this collapse, populations levels revert to a more gradual and permanent decrease albeit with a short reprieve between 3800 and 3500 years BP*

The demographic response to Holocene climate change in the Sahara by Katie Manning

Note: bold insertions are mine. By the end of this paper at Science direct there is purely delicious Mp4 animation of how it all went down that is priceless o really grasp the scope of events. - (<http://www.sciencedirect.com/science/article/pii/S0277379114002728>)

Therefore events in this supplement should focus on the time frame of the years between 6000 years ago and something like 5300 year ago (4000 to 3300 BC). Or almost the whole 4th millennia. Actually animation in the paper mentioned above shows the brutal declined from 3.500 BC to 3000 BC. 5 centuries were enough to completely change the face of North Africa. Things south/central Sahara were a bit slower due to big water reservoirs, but north was short and brutal. - At this point we're talking specifically about the ones that were the last ones to be pushed. Those that only had genetic Polymorphism P297, not completely ruling out already M269 mutation. Time will tell.

Let's recap. At the end of 6th millennia it was time to flee (around 4,900 BCE). Driven by the final push from Hussana-Samarra into the Caucasus, the R1b Shulaveri had to be take flight following the steps of *their people* that had started the run way before with the Halaf-Ubaid transition about 500 years earlier, and probable has seen the southern part of the Shulaveri grounds (notably Aknaahrar and ???) been overtaken and its people forced to move as

nomads. It's always sound advice to look for what Konstantine Pitshelauri has to say about the Caucasus and what he says is:

"... this expansion started even earlier, at the end of the 5th millennium BC, and continued in the 4th millennium. Large masses of Uruk migrants had settled in the South, and later in the North Caucasus"

This was the time that the region became Haplogroup Y patrilineage J1/J2 and later even got the G2a from Anatolia. It's really confusing, at least to me, the P25 (older mutation) and the occurring of the V88 and the M269. Times are too close to each other. And even so, it's really not possible to be sure that the date given were the exact and correct ones. And naturally it's under sampled everywhere.

But, concerning Africa we need to start sampling for P25 and P297.

Nevertheless there is something that is obvious to me - Mutation P25 that led to V88 was, as I see it, in North Africa for a while when the P25 already with mutation P297 in them got there. P25/V88 were the first one being "kickout" by the *Halaf- to - Ubaid transition*. It means that by around 4900 years before BCE, part of the Shulaveri-Shomu, the southwestern part that used to border with the *Halaf people*, were already taken by the North Iraq movement by a much further evolved people and they became nomads, Herdsman looking for their place in the world, ending up in North Africa. The Halaf people accepted the Ubaid, the serpent people coming from the south... but looks like the Shulaveri just north of them didn't. It's even worth to see if between 5000 BCE and 4700 BCE there is a noticeable singled out episode in the Shulaveri-Shomu realm of archeology.

It all means that later, around 4,000 BCE, when the *Uruk* finally overrun the *shuvaleri* territory and crossed even beyond to north Caucasus, there was already sort of a milieu, a context if you prefer, through which to herd the Shulaveri themselves to north Africa. North Africa in fact was on its apogee climatically being on the pinnacle of its attracting people period (the Sahara Pump Theory). Katie Manning, in her amazing MP4 video and pics makes that perfect clear.

Let's be clear: By 4.000 BCE there was a clear path from the Caucasus to Iberia. A Path of people like them, a path of landscape to pasture and good land to farm. And North African archeology at that point is rip with papers with it. It was the climax of the *good sahara*.

1000 years later, by 3000 BCE North Africa was a shadow of what it had been in terms of population. At the Same time, during the last 500 years of the 4 millennium (from 3500 BCE to 3000 BCE) Iberia peninsula went from scarce to crowded (real crowded if Just *Singa* City was 100ha and harboring over 10,000 people). The eastern part of the Sahara saw the first Keynesian experience with the surge of the Egyptian civilization and some were definitely R1b (*group 1*). A large stock of people cross the Gibraltar to Iberia (*Group 2*), a whole lot, probably even more, stood around in the center, where the water was still abundant. in the valleys between and around *Tassili* and *Acacus* (*group 3*).

Group 1 stood jumping from pool to poll south bound form Egypt to Chad as seen in previous suppl and bred with sub Saharan African women mtdna L3,

Group 2 crossed Gibraltar with a lot of women Mtdna H1, which had a lot of ancestrally with other local groups and I am sure it showed in the progeny.

Group 3 stood in the center of the Sahara with probable a mix of the two women, H1 and L3 (naturally I mean as a larger group). Lovely story to be told there. As today so many center their attention to the ones that became the Bell Beakers, at the same time there is a fascinating , mystic and foggy story for the ones that coming from the south Egypt and the ones from the south Air Mountains joined in around lake Chad, where for the next 2000 years

it became a focus of a lot of settlements and people. What an action story to be told must this be.

Reading several papers it's obvious that there were at that point different people. Either the *Tenerians*, that in south Sahara also buried in lateral flex position,, those smaller, slender and more gracile "Mediterraneans" that showed up in upper Niger in the 5th millennium were actually the R1b I am looking for or the R1b-V88 is still unclear. There was a middle pastoral period that had all, all, the hallmark and "brand" of what we will see centuries later in western Iberia. It was the cattle (Bos) people. After them it became also a different way of relationship with cattle based on ovicaprids. Inhumations inside habitations area (see *Takarkori cave*, round hut inside the cave, burial in house, etc.), tendency to mix collective with single burials, Several papers dwell endless on emergence of Hierarchical elite for that brief period... as we will see in Iberia chalcolithic that led to the bell beakers.

One can find a litter of small sites in the northern west part, which were used for transhumance or small period usage. There is an enormous quantities of sites, hints and proves... but not that they were M269. Since the region is crowded with R1b-V88, unless one accepts that back then most of them were P25/297 and only later the mutation for M269 arise this would make it all crystal clear. Until then... Let's keep looking.

Back to the remains of the Shulaveri-Shomu that were on the run. So, it must haven't take them long to get to central Sahara to what today is Libya and Algeria. That is exactly the time when the pastoral round heads pictures disappeared (around 4000 BC) and the Bovidean Pastoral white people II started. So I figure that most of R1b were not V88 at all here. I figure P297 (as most likely we one day will find in Shulaveri) where the bulk (wonder if some already had M269 in their genes). Actually the Sahara didn't let them stay for that long.

Look at a google Maps, imagine sand as savannah and just follow river streams until they bump into Mountains and that is where you always find *them*. If one imagine that even the R1bs already there (Eastern north Africa) in places like *Siwa Oasis*, might not be friendly to stress out roaming population of horseman, dogs and cattle then they might just kept on going until the mountain ranges of the central Sahara where they seem to have had a stop in the WADI TANEZZUFT VALLEY.

Just east of the *tassili-n-Ajjar*, the *Wadi Tanezzuft* was for a millennium a site for excellence for settlements because ever so rich in water. Therefore it was a place for semi-nomadic pastoral groups. And the staggering amount of settlements attest to that fact. Those settlements also denote different networks of people as denoted by different networks of lithic material (or maybe the tendency for site/settlement specialization we already saw at SSC) . It's easy to follow the down of those settlements as it increases population in Iberia peninsula (?).

Specially focus on paleo-oasis of *Tahala*. And Although Dna would always be a decisive factor to clear history I suppose the desert is the worst place to find it. However, the swift covering sand must have kept a great volume of archeological evidence for us to find and complete history in the future.

One must notice that the majority of texts always refer the chiasm manifesting in there around 4000 BC as a base date.

Reading Megalithic architecture and funerary practices in the late prehistory of Wadi Tanezzuft by *Savino di Lernia*, as in other paper, is usually referred the existence in the middle Pastoral context (versus late, which was different everything) of Pits, and circle of stones, and conical structures and Stone Rings, annexes and "arms" of small walls (ring a bell?) which did not occurs at earlier or later periods. One always has to try to extract the Middle Pastoral from this papers because they tend to focus on late Pastoral until *Garamatian* period and what we're trying to extract is a population that came but didn't had the luck of staying because of the starting of the *5.9 Kiloyear event*. Most structures, like burial pits within the perimeter of

circle stone (30 to 40 cm same as the foundations of houses for SSC and later Oestrimni in Iberia), being this areas have to be “seen” beneath what later periods did on top of it.

Anyway, there are references to population discontinuity and specially a total discontinuity between middle pastoral and even the initial part of late pastoral.

Anyway, this round structure with an inhumation in it at the end of the interview is round enough for me. (<http://www.mediterraneoantiguo.com/2015/02/entrevista-con-savino-di-lernia-todo-el.html>).

MAURO CREMASCHI & SAVINO DI LERNIA (Environment and settlements in the Mid-Holocene paleo-oasis of Wadi Tanezzuft (Libyan Sahara) are telling us a tale of one of the last water resource of the 4 millennium. This paper tell us the story I was looking for. Since the Kura River and the mountains we can always rely on looking for the river, the rock massif and there they were. This here is was not different. Finding the *Tanezzuft valley*, west of *Acacus* scarp and east of *Tassili* was to me finding the Shulaveri.

This paper is one of many that are a must to be read. Here just a small example:

*“Three main phases of cultural adaptation to the changing landscape can be distinguished. An initial Middle Holocene phase, probably **commencing around 6000 BP. with an 'anomalous' Middle Pastoral occupation, characterized by large settlements in the Tetersin area, in the playa and along the dune fields, exploiting riverine resources, and with a specific socioeconomic organization.**”*

Or,

*A second phase, roughly datable to the beginning of the Late Pastoral, associated ,with the first **contraction and shift of the Tanezzuft system**, which led to increasing site density in the region between Kaf Jinun and Tahala oasis. This region became the focal area for human communities, but dramatic site density, decreasing resources, and overexploitation of the landscape probably led to the emergence of social stratification. as suggested by the funerary rituals associated with this phase (di Lernia et al. 2001).*

“Archaeozoology of the funerary structures (*Wadi Tanezzuft*) by FRANCESCA MERIGHI

The Archaeology of Libyan Sahara Volume I Chapter Eight, is also very telling

Beside round pits with humans and animals (*Tuaregs* have the myth of site where horses were buried with humans) there are several references to be noted:

“Association of human and animals in funerary structures is quite rare in Saharan Africa during the Neolithic, but in the region under study some animal burials, mainly of cattle, ovicaprines, and dogs have been reported (Paris 2000).”

But, the one I am especially fond of, since I keep on referring the importance of establishing the existence of the original TARPAN horses as a trademark of the Shulaveri travelling, I was baffled by finding here the same amaze about horse bones that I find for instance in the Portuguese papers...

“Equus africanus is a likely candidate for our femur and represents the easiest explanation. Nevertheless, an attribution to the domestic horse cannot be excluded. The femur is not very large if compared to modern Equus caballus , but its size is comparable to that of its homologue in some Italian horses of Paleovenetian and Roman age and therefore the specimen might represent a small horse. This hypothesis is not supported by the fact that the earliest domestic horses documented so far in

Africa are characterized a fairly large size (Boessneck 1988; Achilles Gautier personal communication). However, the strict association of the bone with the human skeleton (the femur was found on a large flat stone covering the human rib cage, Fig. 8.3) may instead favors its attribution to a domestic horse rather than to a wild ass"

The same confusion about the horses that are but don't fit. They don't fit the narratives because they were the Tarpan travelling with the Shulaveri and have become the North African *Barb* horses that travel with the Barbers and the *Sorraia* horse in Portugal (that is why there is a chapter I am writing Just about horses).

Not aiming to make a weird transition from horses to women, one always must remember that this is a focal point. Make no mistake. Either the Ubaid or the already URUK, the snake people, that the Oestrimni of ancient Portugal credit for their plight, kicked the man... but kept the women.

These first and latter groups where mostly man. And they did (I am sure) the same to the others and took their women. And when they got into Iberia it was not a distinct people. See lack of women meant having admixing with people that bring different loads into your pool and that is why that getting into South Iberia, as they were kicked massively by Sahara turning Desert, they were already coming with a mix of Dolichocephalic, Mesencephalic (lots and lots) mixed with some the latter group of more Shulaveri Brachycephalic people. A blend of proto – Berbers autosomal and robust and gracile types more Mesencephalic and probably also a trade they brought from North Africa to mix and increase with some of the local Iberia people, specifically the locals that lived in the birth of Bell beaker cultures, the *Muge people*, to increase what was then found as a sort of trade mark of the Bell beaker which was a rather large number of maxillary alveolar prognathism (Jaw protrudes to the front).

And variety tend to led to the fortified.

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