

Historical Explanations of North African Genetic Traces in North-Western Iberia*

Explicaciones históricas de la huella genética norteafricana en el noroeste de Iberia

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We analyse seven research papers from the last twenty years that have studied North African genetic traces in Iberia and which consistently report that the highest concentrations of genetic characteristics associated with the Maghreb are found in northwest Iberia, a region both physically distant from Africa and under Andalusí political control for a shorter period than practically any other. Attempts to historically contextualise such a seemingly anomalous distribution have, we believe, been undermined by a simplistic reading of the historiography, leading to the marginalisation of any early-medieval explanation for these results, in favour of other more historically tenuous alternatives. Accordingly, these studies have been largely ignored by medievalists, further exacerbating a lack of dialogue between disciplines. We suggest that the perceived paradox between length of political

Se analizan siete estudios recientes sobre la huella genética norteafricana en Iberia. En todos ellos se observan las mayores concentraciones de características genéticas asociadas con el Magreb en el noroeste de la Península Ibérica, una región no sólo alejada de África sino también sujeta al control político andalusí durante menos tiempo que prácticamente cualquier otra región peninsular. Los intentos para buscar un contexto histórico para tan anómala distribución han sido lastrados por una lectura algo simplista de la historiografía, en detrimento de cualquier explicación altomedieval, favoreciendo en cambio soluciones alternativas más historiográficamente problemáticas. En consecuencia, estos estudios han sido generalmente ignorados por los medievalistas, así agravando la falta de diálogo entre ambas disciplinas. Sugerimos que la percibida paradoja entre un

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control and genetic legacy should be used to challenge the orthodoxy surrounding events in the eighth century, and thus explore the possibility of a more profound Berber influence on northwest Iberia than has hitherto been contemplated, rather than being marginalised by historians interested in said period.

Key words: Genetics; Berbers; Northwest Iberia; North Africa; Middle Ages.

breve periodo de control político y una profunda huella genética debe servir para cuestionar la interpretación tradicional de los acontecimientos del siglo VIII, y así obligarnos a contemplar una mayor influencia Berber en el noroeste, en vez de conducir a la marginalización por parte de los historiadores de tan llamativos resultados.

Palabras clave: Genética; bereberes; Iberia noroccidental; norte de África; Edad Media.

Introduction

What exactly happened in north-western Iberia in the decades following the Islamic invasion of 711 has long intrigued historians. Given that many of the institutions that would subsequently dominate the Peninsula have their origins in this region, its early history is of great interest but is tantalisingly out of reach: was the Islamic hiatus essentially anecdotal leaving little lasting impact on a society that developed from Visigothic models, or did it have a more profound impact? Unfortunately, our sources for all this are few and problematical. There is scant archaeological record of an Islamic presence, though this might be a result of it not having been searched for or having gone unrecognized. For charter evidence we must wait another century, although when it does appear the men of the region bear a surprisingly high proportion of Arabic personal names.¹ Finally, the narrative sources suggest the region was notionally conquered by mainly North African invaders, though these accounts are generally significantly later than the events they purport to record and are almost certainly influenced by the prejudices and interests of their authors. In any case, the degree of effective Muslim control over the North West is unclear, and after circa 750 direct rule from Córdoba seems to have ended.

In this context, the possibility of studying historical population movements in Iberia from genetic sampling of modern inhabitants is very exciting. We will observe how in recent decades a number of such studies have directly addressed the question of North African genetic

¹ Aguilar & Rodríguez, “Antroponimia de origen árabe en la documentación leonesa (siglos VIII-XIII)”; Peterson, “The men of wavering faith”.

traces in Iberia. The results, emerging with remarkable consistency from different groups employing a variety of methodologies, are extremely interesting as they consistently report remarkably high concentrations of such traces in north-western Iberia. Without assuming that such traces are necessarily early-medieval in origin, this body of work constitutes a fascinating contribution to our eighth-century conundrum with the potential to revolutionize our understanding of the period and yet it has had surprisingly little impact on early-medieval historiography. Why that is so is the subject of this article, but in general terms there seems to have been a systematic failure of dialogue between two disciplines. Medievalists, for their part, have tended to ignore these studies, though in a sense this is understandable since the studies' authors have themselves tended to shy away from attributing medieval explanations to their anomalous results even when the evidence points in that direction. Why they have done so will be examined on a case by case basis, and although in some studies the reasoning goes unstated, in general it seems to be a combination of caution given the seemingly anomalous geographic distribution and a misunderstanding or simplistic reading of the historiography cited by the studies.

Nonetheless, before analysing the individual cases, if we stand back, we observe that this lack of satisfactory engagement between historians and geneticists is not confined to Iberia. Thus Hannes Schroeder, who leads the collaborative research project CITIGEN, laments “the lack of ongoing collaboration between humanities scholars and natural scientists”.² Similarly, from the medievalist perspective, Patrick Geary has stressed the dangers of flawed historical readings of genetic data, and hence the need to bridge this disciplinary divide: “If historians do not get involved and engage with this technology seriously, we’re going to see more and more studies that are done by geneticists with very little input from historians”.³

² <http://www.citigen.org/about/>. This is a burgeoning area of research, and we note that recently González-Fortes et al. have also contributed to work on pre-historic African migration into Iberia, making the genetic complexity of the Peninsula abundantly clear: “A western route of prehistoric human migration from Africa into the Iberian Peninsula”. In a similar vein, David E. Reich also observes Bronze Age African influence in the Peninsula, Olalde, Reich, et al., “The genomic history of the Iberian Peninsula over the past 8000 years”.

³ <https://www.ias.edu/ideas/2013/geary-history-genetics>. See also Geary, “Genetic History and Migrations in Western Eurasia, 500-1000”.

In this paper I will concentrate on the historical interpretations made of genetic data emerging from north-western Iberia in a series of studies from the last twenty years.⁴ Despite employing different methodologies, all have identified what they regard as anomalously high concentrations of North African genetic characteristics in north-western Iberia. What interests me are their attempts to contextualise chronologically and historically their results. By “chronologically” I refer to non-historical temporal contextualisation, based generally on models which analyse the degree of diversity observed in the North African genetic traces encountered in Iberia. The greater the diversity the greater the antiquity of the moment of introduction. As we will see, from essentially impressionistic origins, such models are becoming progressively more sophisticated. With regards to historical contextualisation, i.e. the use made by the geneticists of existing historiography, this seems to me to be where the desired multidisciplinary breaks down. I will now walk through the studies and observe how this happened.

Analysis of individual studies

In the earliest of the studies here contemplated, Larruga et al. (2001) concentrate on a specific ethnic and genetic isolate in western León province, from around the town of Astorga, known as the Maragatos.⁵ A generic reference is made by the authors to this group’s unique ethnographic profile: “cultural peculiarities with attributed resemblances to North African Berbers or to Near East Semitic cultures have differentiated them from their surrounding neighbours”.⁶ To explain this cultural idiosyncrasy, the authors initially acknowledge that a Berber origin following the eighth-century Islamic invasion is one of three different interpretations in circulation, the others being Goths assimilated by said

⁴ There have, of course, been many other studies of this kind going back to the mid-1980s and focussing on other parts of Iberia. For example, among the more recent studies, Gayán et al. (“Genetic structure of the Spanish population”) managed no data from north-western Iberian populations, the closest centres sampled being Arévalo (Ávila) and Avilés (Asturias). As for more specific studies, the origin of the Basques is a subject that has aroused much interest, for example, Calafell & Bertranpetit, “Principal component analysis of gene frequencies and the origin of Basques”.

⁵ Larruga et al., “Mitochondrial DNA characterisation of European isolates”.

⁶ Larruga, “Mitochondrial DNA characterisation”, p. 708; no specific source is quoted.

invaders or a Celtic substrate with Phoenician cultural influence. We might also add that the *Maragato* ethnonym has been associated with a Berber etymology,⁷ though this is not universally accepted.⁸

In their overview of the Maragatos' genetic profile, the authors observe "smaller distances with the geographically closer populations of León, Galicia and Portugal (Figure 1) than with Andalusia or North Africa, weakening the hypothesis of a Berber origin for the Maragatos". This seems a strange assertion since it begs the question of neighbouring populations similarly having Berber origins. In other words, similarity to their neighbours in north-western Iberia does not in itself weaken the hypothesis of a Berber origin, particularly when the authors report a high frequency of the U6 haplogroup among the Maragatos, with an incidence of 8.2%, compared to an average of 2% in Iberia but 15% in North Africa.⁹ They acknowledge previous literature suggesting a North African origin for said haplogroup but seem to distance themselves from such a reading (despite their own 15% figure) by qualifying it with the adjective "putative", and seemingly do so on the basis of the observed north-Iberian distribution. Ultimately, they come to dismiss an eighth-century origin for the north-western Iberian concentration preferring a "hypothetical pre-historic African colonisation", offering as reasons for this preference the distribution and the degree of diversity observed.¹⁰

The diversity argument is problematical since it contradicts all the subsequent studies that argue quite the opposite, i.e. that a lack of diversity (in admittedly other samples) indicates a relatively recent origin. It seems to me that a disproportionate amount of weight is borne by what they regard as an incongruously northern distribution within the Peninsula even though it is supported by previous studies¹¹ which they

⁷ Oliver, *En torno a los orígenes de Castilla*, pp. 29-42.

⁸ Riesco, "De nuevo sobre el nombre de los maragatos".

⁹ Larruga, "Mitochondrial DNA characterisation", p. 714, Table 3. From this table the full figures for U6 are: North Africa 14.90; Andalusia 1.54; Western Peninsula 2.05; Maragatos 8.16; Central Peninsula 2.02; Basques 0.60.

¹⁰ "The distribution of U6 deserves special comment. This sub-haplogroup has a putative North African origin. (Côrte-Real, 1996; Rando, 1998). In Europe it has only been detected in the Iberian Peninsula but with higher frequencies in northern than southern areas (González et al., personal communication) (Table 3). This distribution and its high diversity in Iberia has ruled out that historic events such as the Moslem occupation (Chejne, 1974) are the main causes of its presence in the Peninsula which has been attributed to a pre-historic African colonisation", Larruga, "Mitochondrial DNA characterisation", p. 710.

¹¹ Côrte-Real et al., "Genetic diversity in the Iberian Peninsula determined from mi-

themselves cite and in some cases co-author,¹² and by all the subsequent studies we will contemplate. Nor is any justification for such a seemingly aprioristic rejection to be found in Chejne, the only historical work cited in this section.¹³

The geographical scope of our second study (Plaza et al., 2003) is much broader, encompassing different regions across the Western Mediterranean, including Galicia and Northern Portugal among its ten Iberian locations sampled, and with eight different north-west African samples, some taken from previous literature.¹⁴ Such breadth necessarily means less focus, and accordingly there is here less attempt to historically contextualise results than in other papers, and although there is an extensive bibliography of over 60 studies, not one of them is historical.

According to the data managed, haplogroup U6 has its highest concentration (7%) of all the Iberian (and indeed European) samples in Northern Portugal.¹⁵ It is entirely absent from Southern and Central Portugal and many other parts of the Peninsula, and the average for all Iberia is 1.8% (a figure which will have been boosted by the north-western concentration), compared to an average of 10% across North Africa.¹⁶ This latter figure is less than that reported by Larruga, but we should bear in mind that, although there is a degree or reworking of

tochondrial sequence analysis”; Rando et al., “Mitochondrial DNA analysis of Northwest African populations reveals genetic exchanges with European, Near-Eastern, and sub-Saharan populations”.

¹² F. Pinto & A.M. González, for example, are credited as co-authors of both Larruga, “Mitochondrial DNA characterisation”, and Rando, “Mitochondrial DNA analysis”.

¹³ Chejne, Muslim Spain. We have used the 1980 Spanish edition (*Historia de España Musulmana*), which according to the author is “una versión fiel de la edición inglesa, con alguna ampliación en notas y bibliografía” (p.13). Barely two pages are dedicated to the conquest, and the only references to the north-west are with reference to Ṭāriq’s advance towards Castille, León and Asturias in 711 (p. 19), and then again in 713 when, after meeting resistance in the Rhone valley, Musa “volvió al extremo noroeste de la península, conquistando León y Galicia” (p.20).

¹⁴ Plaza et al., “Joining the Pillars of Hercules”.

¹⁵ Plaza, “Joining the Pillars of Hercules”, p. 317 (Table 2).

¹⁶ “Haplogroup U6 is largely distributed among Mozabites (28.2%) and Mauritians (20%). In other NW Africans, the frequency of U6 ranges from 4.2% in Tunisians to 8% in Moroccan Arabs, with the remarkable case of Algerians where haplogroup U6 is absent. In Italians, haplogroup U6 is practically absent, with only one sequence found among Sicilians. In the Iberian Peninsula U6 distribution is sparse. It is present in the south-western part of the Peninsula at low frequencies (<7%), and is absent in Basques, Catalans, Valencians, Central Portuguese, and Southern Portuguese”, Plaza, “Joining the Pillars of Hercules”, p. 316.

different samples as commented above, each study employs a different mix of samples and normally some new material too. The important point is the overall picture, and in this sense these first two studies coincide, setting a pattern we will see repeated in all future studies contemplated: a haplogroup regarded as characteristic of North Africa has by far its highest Iberian concentration in the North West of the Peninsula. Nonetheless, we should qualify the affirmation of U6 being characteristic of North Africa given that in this study the authors distinguished between different haplogroups within Haplogroup U: “the present Iberian and NW African sequences are found within haplogroups U6a and U6a1, but haplogroup U6b contains no NW African sequences and is mainly composed of Canarian and Iberian sequences”.¹⁷ This sub-division of U6 haplogroups is not, however, reflected in their Table 2 (reproduced below), the only one which offers numerical values for the different regions sampled.

Pop (n)	Alg (47)	Mau (30)	MA (50)	MB (64)	Moz (85)	Sah (56)	SBer (50)	Tun (47)	NWA (429)	And (158)	Bas (173)	Cat (78)	CS (50)	Gal (103)	Val (30)	Port (54)	NPo (100)	CPo (82)	SPo (59)	IBE (887)	CIt (83)	Sard (73)	Sic (169)	SI (37)	Tus (49)	ITA (411)	
L1	6.4	23.4	10.0	1.6	-	3.6	6.0	-	6.4	-	-	-	2.0	-	-	-	1.0	1.3	1.7	0.6	-	1.4	-	2.7	-	0.8	
L2	6.4	13.4	6.0	-	5.9	7.1	10.0	12.8	7.7	0.6	-	-	2.0	1.0	3.4	1.8	3.0	2.4	1.7	1.6	-	1.4	0.6	-	-	0.4	
L3	14.9	6.7	16.0	1.6	7.0	23.3	10.0	14.9	11.8	1.3	-	1.3	-	1.0	-	1.8	1.0	2.4	1.7	1.0	1.2	-	-	5.4	2.0	1.7	
D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	0.2	
M1	12.8	-	2.0	-	4.7	-	-	4.2	3.0	1.9	-	-	-	-	-	-	-	1.3	-	0.3	-	1.4	1.8	-	-	0.6	
M5	-	-	-	-	-	-	-	-	-	1.9	-	-	2.0	-	-	-	-	-	-	0.4	-	-	-	-	-	-	
N	-	-	-	-	-	-	-	-	-	0.6	-	1.3	-	-	6.6	-	-	1.3	-	1.0	-	1.4	1.2	2.7	-	1.1	
I	-	-	-	-	-	-	-	2.1	0.3	1.9	-	-	-	-	-	-	1.0	-	1.7	0.5	-	1.2	-	4.1	1.1		
W	-	-	-	-	-	-	-	-	-	1.3	-	-	5.1	2.0	1.9	-	-	2.0	1.3	-	1.4	1.2	1.4	1.8	5.4	2.0	2.4
X	2.1	-	4.0	-	-	-	-	2.1	1.0	3.2	1.7	2.6	2.0	1.0	-	-	-	3.6	1.7	1.6	3.6	1.4	2.9	5.4	6.1	3.9	
R1	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	-	-	-	0.2	-	-	-	2.7	0.5	
J/T	-	-	-	1.6	-	-	-	-	0.2	0.6	-	-	-	-	-	-	-	-	-	0.1	-	-	1.8	2.7	-	0.9	
T	4.2	-	4.0	15.6	4.7	1.8	4.0	6.4	5.1	4.4	5.2	7.7	10.0	2.9	-	11.1	11.0	11.0	10.2	7.3	15.7	12.3	8.3	13.5	10.2	12.0	
J	12.8	3.3	4.0	9.4	3.5	-	10.0	4.2	5.9	7.0	4.0	2.6	8.0	9.7	6.6	5.6	6.0	6.1	8.5	6.5	6.0	5.5	5.3	2.7	14.3	6.8	
U*	2.1	3.3	12.0	6.2	12.9	8.9	8.0	6.4	7.5	10.1	13.3	9.0	20.0	12.6	16.6	9.3	10.9	14.6	11.9	13.1	9.6	12.3	4.7	5.4	12.2	8.8	
U6	-	20.0	8.0	7.8	28.2	5.4	6.0	4.2	9.9	1.9	-	-	2.0	1.9	-	5.6	7.0	-	-	1.8	-	-	-	-	-	0.1	
K	4.2	6.6	4.0	7.8	-	7.1	2.0	6.4	4.8	6.3	5.2	6.4	2.0	3.9	10.0	7.4	5.0	7.3	6.8	5.8	7.2	5.5	2.9	2.7	8.2	5.3	
HV	-	-	-	-	-	7.1	2.0	6.4	1.9	2.5	-	1.3	2.0	1.0	3.4	3.7	-	-	-	1.4	1.2	2.7	-	-	2.0	1.2	
H	34.0	20.0	26.0	42.2	24.7	17.9	32.0	23.4	27.5	46.2	57.8	56.4	46.0	59.2	53.3	48.1	41.0	37.8	44.1	49.2	47.0	50.7	50.3	45.9	38.8	46.5	
V	-	3.3	4.0	6.2	8.2	17.9	10.0	-	6.2	5.7	10.4	5.1	-	2.9	-	3.7	8.0	7.3	6.8	5.0	4.8	2.7	5.9	2.7	-	3.2	
Other	-	-	-	-	-	-	-	6.4	0.8	2.5	0.6	1.3	-	1.0	-	1.8	-	2.4	3.4	1.3	1.2	-	10.6	-	-	2.9	

Alg: Algerians; Mau: Mauritians; MA: Moroccan Arabs; MB: Moroccan Berbers; Moz: Mozabites; Sah: Saharawis; SBer: South Berbers; Tun: Tunisians; And: Andalusians; Bas: Basques; Cat: Catalans; CS: Central Spain; Gal: Galicians; Val: Valencians; Port: Portuguese; NPo: North Portuguese; CPo: Central Portuguese; SPo: South Portuguese; CIt: Central Italy; Sard: Sardinians; Sic: Sicilians; SI: South Italians; Tus: Tuscans. NWA: unweighted average frequencies in NW Africans; IBE: unweighted average frequencies in Iberians; ITA: unweighted average frequencies in Italians. (*): Excluding U6. N includes sequences carrying the HVRI substitutions diagnostic of either N1a or N1b.

Figure 1. Table 2 from Plaza et al. (“Joining the Pillars of Hercules”, p. 317), with the U6 figure for northern Portugal highlighted.

In their conclusions, for the U6b1 presence in Iberia which only reaches a frequency of 0,2%, they opt for a post fifteenth-century explanation “after the contact between Europeans and the Canary abo-

¹⁷ Plaza, “Joining the Pillars of Hercules”, p. 316.

rigines”.¹⁸ As for the other U6 haplogroups (U6a, U6a1), however, i.e. the ones present in significantly higher frequencies in the Iberian Peninsula than U6b1, and whose presence therein is described as possibly being “attributed to gene flow from NW Africa”,¹⁹ their high concentration in Northern Portugal goes unmentioned in the text and is only registered in the aforementioned Table 2, and accordingly there is no attempt at chronological or historical contextualisation. This silence is frustrating, particularly given the anomalous distribution and the insistence on the attribution of the U6b1 presence to a Canarian origin, but is perhaps understandable given the broader scope of the study.

Pereira et al. (2005) used 1,045 Iberian samples, half coming from their own work with 549 Portuguese individuals, the rest from previous Spanish studies, and so the fact that they report similar results to those other studies is to be expected, though obviously the addition of new Portuguese data is welcome.²⁰ In fact, many of these studies recycle previous samples, and the numerous authors cited often recur from one study to another. Accordingly, the overall frequency of haplogroup U6 is 2.39%, similar to that reported by both Larruga and Plaza. Once again U6 proves more common in the North, and it is in these more abundant Portuguese samples that the northern concentration of U6 is most clearly appreciated: from 5.4% in the North to 2.5% in Central Portugal and 1.6% in the South.²¹ Note that sub-Saharan influence has the opposite distribution, being over three times as common in the South as in the North.²² The degree of diversity observed suggests introduction in recent (i.e. “historical”) times, i.e. the “Islamic period, 711-1500 for North African lineages”, however, elsewhere they regard dating the “introduction events” as impossible.²³

Reasonably, they postulate that the “most probable associated historical event is obviously the Islamic invasion of Iberia (A.D. 711)”.²⁴

¹⁸ Plaza, “Joining the Pillars of Hercules”, pp. 316 (quote), 325. Although indeed a recent study suggests this U6b1 would also have a remote North African origin, Fregel et al., “Mitogenomes illuminate the origin and migration patterns of the indigenous people of the Canary Islands”.

¹⁹ Plaza, “Joining the Pillars of Hercules”, p. 316.

²⁰ Pereira et al., “African female heritage in Iberia”.

²¹ Pereira, “African female heritage in Iberia”, pp. 219, 221.

²² Pereira, “African female heritage in Iberia”, p. 224.

²³ Pereira, “African female heritage in Iberia”, p. 227, conclusion #2; p. 226 for the impossibility of dating the introduction events.

²⁴ Pereira, “African female heritage in Iberia”, p. 226.

Nevertheless, they rapidly perceive some difficulties with this explanation, namely that “northern Iberia was never under permanent Islamic administration”, citing Serrão and Marques.²⁵ These difficulties are then upgraded into a paradox when they state that certain northern Iberian regions, including northern Portugal and Galicia, were effectively “untouched” by Islam.²⁶ While clearly in a literal sense it is true that no part of Iberia was under “permanent Islamic administration”, from there to “untouched” seems an excessive leap, particularly when we discover that Serrão & Marques in fact accept the conquest of the whole of Portugal and mention Berber rebellions in Galicia in 740.²⁷ Thus, to a large extent, the paradox is of Pereira et al.’s own making.

This is perhaps slightly harsh, as the distribution is certainly problematical, and the authors’ response to the conundrum is thereafter commendably cautious, requesting a re-reading of historical models rather than rejecting out of hand one of the more logical explanations: “To clarify this conundrum, we need not only a substantial increase in the amount of mtDNA data (particularly for North Africa) but also new historical data and interpretations”.²⁸

Adams et al. (2008) adopt a different methodology, taking a “formal admixture approach” and using Y chromosome haplotypes to study paternal lineages across the Iberian Peninsula.²⁹ In general, they observe “a remarkably high level of North African and Sephardic Jewish ancestry”, and more specifically “Mean North African admixture is 10.6%, with wide geographical variation (Figure 4, Table S2), ranging from zero in Gascony to 21.7% in Northwest Castile”.³⁰

²⁵ Pereira, “African female heritage in Iberia”, p. 215.

²⁶ “[S]ome regions in northern Iberia, such as northern Portugal, Galicia and Basque Country, studied here, remained untouched (or were contacted just slightly by sporadic raids). Thus it appears paradoxical that the highest frequencies for this haplogroup are to be found in northern Iberia and in northern Portugal, in particular”, Pereira, “African female heritage in Iberia”, p. 226.

²⁷ “[A] sujeição do restante ‘Portugal’ tera ficado concluida em 716”, Serrão & Marques, *Das invasoes germanicas a ‘Reconquista’*, p. 122; for Galicia, p. 123.

²⁸ Here quoted from the article’s abstract, but expressed in similar terms in the conclusions on p. 227.

²⁹ Adams et al., “The Genetic Legacy of Religious Diversity and Intolerance”.

³⁰ Adams, “The Genetic Legacy”, pp. 726, 730. I interpret their reference to “Northwest Castile” as meaning León, the north-western portion of the modern Castilla-León autonomous region.

Throughout the article they attempt to contextualise their findings by reference to historiography, Roger Collins being their main work of reference for early-medieval questions, and moreover they display an awareness of the problems surrounding the medieval sources.³¹ However, as was the case with Pereira, some of the conclusions they reach are surprising as they don't seem to reflect their own chosen authority's opinions. Particularly problematical is the statement that "the invaders had conquered the entire peninsula, with the exception of the northern Basque country, Cantabria, Galicia, Asturias, and most of the Pyrenees in the north, which remained largely unoccupied", when Collins in fact contemplates a complete occupation, referring to 'Abd al-'Azīz's taxation of the whole Peninsula, to Berber garrisons in the Pyrenees, to Berbers settled in Galicia until the mid-eighth century and likewise for the Northern Meseta³². It is hard to understand what such a sweeping negation is based upon.

They argue against a prehistoric origin for the observed North African influence, on the basis of the "low diversity of the prominent North-African lineage hgE3b2 in Iberian populations",³³ and accordingly seem to accept that most of the observed traces have an early medieval origin, referring to a 700-year period prior to expulsion. They assert that "[North Africans] apparently spent the least amount of time in the north", but in so doing are confusing demographics (i.e. possible immigrant population) with (the brevity of Andalusí) political control, and, in consequence, they too are puzzled by the seemingly anomalous figures encountered in the North West: "Indeed, the highest mainland proportions of North African ancestry (>20%) are found in Galicia and Northwest Castile [i.e. León], with much lower proportions in Andalusia".³⁴

Their proposed solution to the conundrum is to interpret it in a terms of a west-east contrast which they then seek to explain with reference

³¹ "Historical accounts should allow us to account for this, but they are sometimes written long after the incidents they describe, are usually scarce, and are always recorded with a particular audience in mind (and, therefore, are subject to bias)", Adams, "The Genetic Legacy", p. 731, citing Collins.

³² Collins, *The Arab Conquest of Spain*, pp. 38, 88, 50, 154, respectively; the Adams quote is from p. 726.

³³ Adams, "The Genetic Legacy", p. 732.

³⁴ Adams, "The Genetic Legacy", p. 732.

to early-modern events.³⁵ They seem to be playing with two different hypotheses here, though frustratingly they fail to articulate these ideas, and thus we are left arguing against only partially espoused views: on the one hand, that north-western readings are boosted by internal migrations after the Granadan revolt of 1567-1571; on the other hand, that hypothetical eastern (i.e. Valencian and Granadan) traces, perhaps ca. 1560 equivalent to those of the NW, were more effectively eradicated than in the West. In both cases they cite Harvey as their only authority³⁶.

However, if we look at what Harvey writes, with respect to the sixteenth-century internal deportations, Galicia and León go unmentioned as destinations, so it is hard to see how deportations to Linares, Almagro, Ciudad Real and Montiel³⁷, to Seville, Toledo, Cordoba and Albacete³⁸ or to Segovia, Valladolid, Palencia, Ávila, Salamanca, and Zamora³⁹ explain the anomalous genetic traces of León or Galicia. These are not generalisations or intuitions, but bureaucratically annotated registers of numbers and destinations, and Galicia simply does not figure. These people were indeed moved “northward and westward” as Adams et al. argue, but not far enough to have the postulated effect. Indeed, in this period there was in fact net migration from Galicia to Granada to replace those expelled⁴⁰. As for the idea that the final expulsion of the Moriscos from the whole nation (although above all from Valencia) after 1609 is what leaves us the problematical distribution all our authors have encountered, this indeed helps to explain the lower incidences in the East

³⁵ “The most striking division in North African ancestry proportions is between the western half of the peninsula, where the proportion is relatively high, to the eastern half, where it is relatively low”, Adams, “The Genetic Legacy”, p. 732.

³⁶ Harvey, *Muslims in Spain*.

³⁷ “The groups of deportees were moved northward via Alcalá la Real and on to Linares, Almagro, and Ciudad Real, where they were handed over to local authorities. Others went via Jaén and Baeza to the region of Montiel”, Harvey, *Muslims in Spain*, p. 229.

³⁸ “5,500 reached Seville; 6,000, Toledo; 12,000, Cordoba; 21,000, Albacete”, Harvey, *Muslims in Spain*, p. 234.

³⁹ “There they had been subdivided into two groups, one which went to Segovia, Valladolid, and Palencia (leaving behind in those places 500 and 216 persons, respectively), and another for Ávila, Salamanca, and Zamora (1,000, 950, and 128)”, Harvey, *Muslims in Spain*, p. 235.

⁴⁰ The Inquisitor Jiménez de Reinoso, on the possibility of Manchegan immigrants replacing the Moriscos, “warned they would have to be better treated than those Galicians who had been taken to Granada after the Second Granadan War”, Harvey, *Muslims in Spain*, p. 298.

of the Peninsula, but it doesn't explain the origin of the north-western concentration, so it leaves us at our starting point. How, for example, do these effective eastern expulsions explain the north-south distribution Pereira observes in western Iberia (i.e. Portugal)?

Botigué et al. (2013) is an ambitious and broad comparison incorporating data from more than 2,000 individuals from all over Europe, Africa (including seven different North-African groups) and the Near East⁴¹. In contrast to most of the studies here analysed, it tends to avoid speculation regarding historical causes, being more focussed on genetic risk of developing Multiple Sclerosis across different population groups, but it is included here because of its attempts at chronological contextualisation of its findings. Firstly though, and in harmony with all the other studies analysed, the authors regard their Galician samples as closer to the North African genetic profile than those of Central Spaniards, Andalusians or Basques (Table S3), and significantly so in the case of the most westerly African samples, i.e. those from Morocco and Western Sahara. Moreover, by such inclusion of more variegated North African populations, their “estimates of shared ancestry are much higher than previously reported (up to 20% of the European individuals' genomes)”⁴².

As for chronology, according to the observed degree of variance (i.e. diversity) the authors consider the North African traces in Iberia to be the result of “recent migrations” which they calibrate in terms of centuries rather than millennia. Figure S11 suggests between six and nine generations, i.e. 240-300 years, but the authors regard these as systematic under-estimates: “We consider these time estimates to be lower bounds: under all of the proposed variance-increasing scenarios, there must be a substantial proportion of migration that has occurred before the effective migration time, possibly much earlier”⁴³. The point is, that in agreement with all the other studies except Larruga (and to an extent Regueiro, who we will come to shortly), the degree of diversity indicates that the North African genetic traces in north-western Iberia have their origin in the historic rather than prehistoric period.

⁴¹ Botigué et al., “Gene flow from North Africa contributes to differential human genetic diversity in southern Europe”.

⁴² Botigué, “Gene flow from North Africa”, p. 11795.

⁴³ Botigué, “Gene flow from North Africa”, p. 11794.

Although the inability of many of these studies to offer more specific figures (even if only as approximations) is frustrating, we note that the more recent publications do tend to specify more and more.

Regueiro et al. (2015)⁴⁴ is the study that expends most effort exploring different historical contexts, though it is alarmingly derivative on occasions with some phrases lifted acritically from Adams⁴⁵ and their referencing of Harvey suggesting in fact, and again, an over reliance on Adams rather than having consulted the book they cite.⁴⁶ Nonetheless, they perform a useful literature search, referencing Adams, Botigué and others, and, in so doing, underline the coherence of the results when they too, in common with all the other studies, observe,

A recurrent and compelling theme reflected in many of the above-mentioned Y-specific and mtDNA studies is the relative higher frequencies of Arabian and Berber markers in the extreme northwest of Iberia, especially in Galicia, a region only very briefly occupied by the Islamic army, which retreated south in 739 A.D.⁴⁷

Accordingly, they confront the perceived paradox faced by all our studies

If the Islamic occupation of Iberia was indeed a major contributing factor to the presence of moderate levels of M81 in the Peninsula, how can we explained [sic] the higher levels of this mutation and the M183 derivative in Galicia (north west Spain) and Cantabria (north central Spain) compared to Andalusia (south Spain)?⁴⁸

Resolving this conundrum is the main theme of the study although in the quoted case specifically they are talking about the M81 hap-

⁴⁴ Regueiro et al., “From Arabia to Iberia: A Y chromosome prospective”.

⁴⁵ “[W]ithin four years, had captured almost the entire Peninsula, with the exception of Asturias, the northern Basque country, Cantabria, Galicia and most of the Pyrenees in the north, which remained largely unoccupied”, Regueiro, “From Arabia to Iberia”, p. 5—this is repeated verbatim from Adams, who they don’t, however, quote.

⁴⁶ “Specific regions affected by this influx of Muslims that were forced to relocate out of *al Andalus* was the northwest corner of the Peninsula, mountainous and low in population density area, known today as Galicia (Harvey, 2005)”, Regueiro, “From Arabia to Iberia”, p. 5. Despite this affirmation, we note that the word *Galicia* appears not once in Harvey’s 400 page monograph, and the only reference to it is with regard to migration of Galicians to Granada after 1571 that we cited when discussing Adams, “The Genetic Legacy”.

⁴⁷ Regueiro, “From Arabia to Iberia”, p. 8.

⁴⁸ Regueiro, “From Arabia to Iberia”, p. 20.

logroup, “lineages to be particularly frequent in Berber-speaking groups from Northwest Africa”. In fact, they deal with a variety of different haplogroup derivatives, complicating direct comparison with the other studies, and introducing a variety of internal chronologies, and also some slightly different geographies, hence the reference to Cantabria. In general terms though, their willingness to search for solutions leads them to contemplate a whole range of alternatives, to which we should add the fact that they don’t entirely exclude 711 as a contributing factor:

- “enforced relocations northward and westward of Moriscos following the War of Alpujarras (1567-1571)”, citing Harvey (2005) again;
- “earlier Muslims displacements northward ... during the 300 or so years of *Reconquista*, as Christian forces pushed south toward the Kingdom of Granada”;
- “pre-Islamic gene flow from Northwest Africa into Iberia could have been driven, in historical times, by the well documented Phoenician and Roman commerce involving the two regions”.⁴⁹

With regards to this latter possibility, it is odd how the north-western distribution is so problematical for the 711 hypothesis, but not apparently for this new hypothesis, even though the Phoenicians were seafaring traders known to have colonised various parts of the Mediterranean, founders of colonies in Malaga and Cádiz, and are not known for their settlements in the interior. Nonetheless we are to believe that in Galicia they left remarkably high genetic traces. The Roman hypothesis is perhaps more convincing, if applied to slave-working at the Medulas mine complex in western León, but would need a lot more work before it could convince that North African influx was significantly greater there than in any other part of the Peninsula.

Bycroft et al. (2019), our final study, introduces a new methodology (fine-scale differentiation analysing genome-wide genotyping array data) and promises to be free of “prior assumptions about source populations”.⁵⁰ In a similar vein to the previous studies, the authors

⁴⁹ Regueiro, “From Arabia to Iberia”, pp. 20-21.

⁵⁰ Bycroft et al., “Patterns of genetic differentiation”.

observe genetic differentiation along an east-west axis and in contrast “remarkable genetic similarity in the north-south direction, and evidence of historical north-south population movement”. Interestingly, they map their findings against linguistic cartography produced by Baldinger⁵¹ in order to demonstrate the coherence of the north-south bands. Once again, however, they are puzzled by what they observe in the North West:

Perhaps surprisingly, north African ancestry does not reflect proximity to north Africa, or even regions under more extended Muslim control. The highest amounts of north African ancestry found within Iberia are in the west (11%) including in Galicia, despite the fact that the region of Galicia as it is defined today (north of the Miño river), was never under Muslim rule and Berber settlements north of the Douro river were abandoned by 741. This observation is consistent with previous work using Y-chromosome data.⁵²

Here, rather surprisingly for a team with several members based in Santiago de Compostela, the authors seem to misunderstand both the region’s geography and its history. The latter stretches of the Miño river, approximately 80 of its 340 km, do indeed mark part of modern Galicia’s southern border with Portugal, but when the river is used by historians to delimit effective Muslim presence, it is with reference to its earlier course, which bisects the Galician interior, cutting a NE-SW diagonal. In other words, their cited authorities do not say that all of Galicia was free of Muslim control, but instead state that south-eastern Galicia was thus under Muslim rule until around 740.⁵³ Moreover, Bycroft et al. took samples from this south-eastern area, according to their Figure 3 Map A (reproduced below, with the approximate course of the Miño river superimposed).

⁵¹ Baldinger, *La formación de los dominios lingüísticos en la Península Ibérica*.

⁵² Bycroft, “Patterns of genetic differentiation”, p. 9. The “never under Muslim rule” comment is followed by a somewhat confusing reference to a manual on the History of Galicia, the second volume of which, authored by Pallares & Portela, is dedicated to the Middle Ages. Here north-western Galicia is indeed excluded from any significant Muslim presence, possibly rather too dogmatically, but not south-eastern Galicia, Pallares & Portela, “Galicia en la época medieval”, pp. 59-61. The Y-chromosome data reference is to Adams’ 2008 study commented on above, and which, as we have seen, does indeed return the same seemingly anomalous north-western figures.

⁵³ Pallares & Portela, “Galicia en la época medieval”, pp. 59-61.

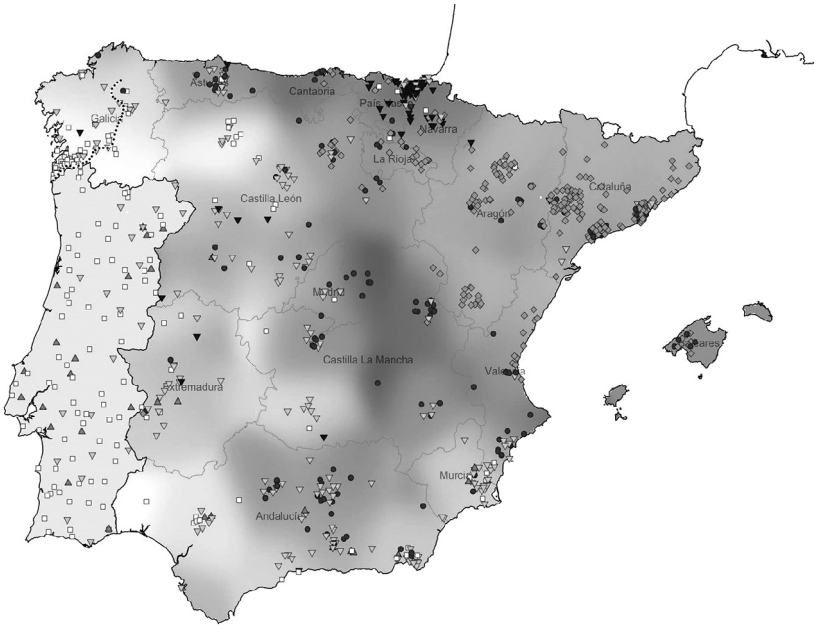


Figure 2. Detail from Bycroft *et al.*, “Patterns of genetic differentiation”, p. 7, with approximate course of the river Miño superimposed.

But the empirical basis for excluding even the north-western half of Galicia is itself extremely weak. The idea, as represented by Pallares and Portela in a manual which provides no detailed references or footnotes, of part of Galicia not being conquered comes from Sánchez Albornoz, though no precise reference is provided.⁵⁴ Subsequently, and again according to Pallares & Portela, Barbero & Vigil, developing their theory of a Visigothic *limes*, situated the Islamic high-water mark on the Miño, a theory which echoes an intuition by Lopez Ferreiro (1837-1910) about the historic autonomy of the Iria area on the basis of a politically highly charged 915 charter. Empirically it is all extremely weak, the sources—as we will see—simply do not support these ideas. But even if we accept that the extreme north west of Galicia did indeed go unconquered, all of these authors accept

⁵⁴ Pallares & Portela, “Galicia en la época medieval”, p. 59.

that south-eastern Galicia was indeed submitted: Lugo, for example, alongside Astorga specifically mentioned in these terms by Barbero & Vigil.⁵⁵

Nonetheless Bycroft et al.'s (historiographically entirely unsupported) exclusion of the whole of Galicia from Muslim influence leaves them with a problem, one common to all these studies, but even more pronounced in this case. In order to explain the perceived anomaly, they speculate (their choice of verb) with a variety of possible dynamics:

later internal migratory flows, such as between Portugal and Galicia ... regional differences in patterns of settlement and integration with local peoples of north African immigrants themselves, or varying extents of the large-scale expulsion of Muslim people, which occurred post-*Reconquista* and especially in towns and cities⁵⁶.

Even in this seemingly undogmatic tone and when willing to contemplate a range of explanations, it is striking how an early-medieval solution goes unmentioned when elsewhere the general argument of the article is that genetic patterns in Iberia are largely the result of Medieval population movements,⁵⁷ and more specifically early-medieval: “north African ancestry results from an admixture event, which we date to 860 - 1120 CE, corresponding to the early half of Muslim rule”.⁵⁸ This latter chronology is expressed graphically in Figure 3b (below), with values (“admixture dates”) in fact significantly closer to the earlier end of the stated scale, particularly in the case of the more Northern groups. Finally, we are getting relatively precise chronological contextualisation of the samples independent of historiographical models, and yet when it comes to the north African traces in north-western Iberia the authors feel obliged to abandon the emergent chronology because of perceived historiographical models.

⁵⁵ “Musa ibn Nasayr, en 714, hizo una campaña desde el alto valle del Ebro hasta Lugo en Galecia”, Barbero & Vigil, *La formación del feudalismo en la Península Ibérica*, p. 212.

⁵⁶ Bycroft, “Patterns of genetic differentiation”, pp. 9-10. After the reference to expulsions they cite Barton (*A History of Spain*) and Carr (*Spain: a history*).

⁵⁷ “Overall, the pattern of genetic differentiation we observe in Spain reflects the linguistic and geopolitical boundaries present around the end of the time of Muslim rule in Spain”, Bycroft, “Patterns of genetic differentiation”, p. 10.

⁵⁸ Bycroft, “Patterns of genetic differentiation”, p. 2.

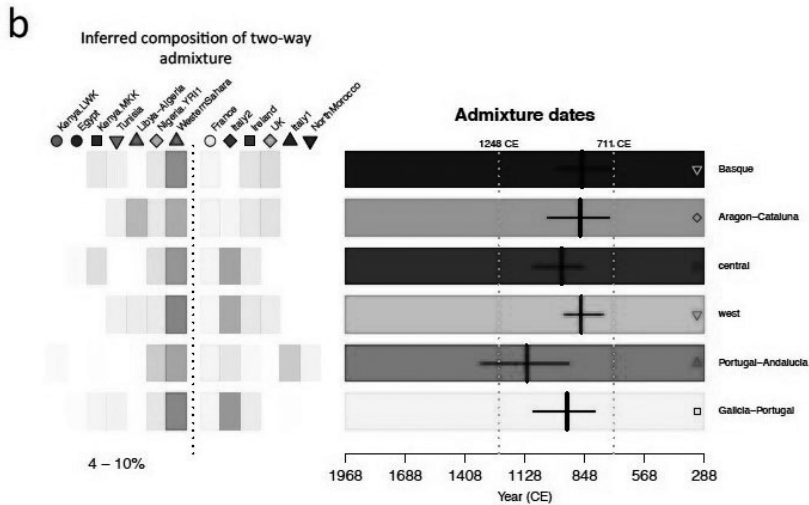


Figure 3. Detail from Bycroft *et al.*, “Patterns of genetic differentiation”, p. 7.

This is all the more surprising when their cited sources don't really support this marginalisation of the early-medieval hypothesis and prioritisation of the early-modern alternative. Barton, for example, accepts the Muslim conquest of the North West and the presence therein of Berber garrisons as late as the 740s.⁵⁹ As for the Morisco expulsions, this same author mentions 100,000 Granadans being deported to Andalusia, Extremadura and Castile after 1571, but makes no reference to Galicia or León, coinciding in this with Harvey⁶⁰. With regard to events after 1609, again Barton makes no mention of Galicia or León as destinations (or departure points), while from Castile he reports expulsions (together with Aragon totalling 150,000) which would hardly have been compensated by 1,832 Morisco children being sent from Valencia to Castile to serve in noble and clerical households.⁶¹

⁵⁹ Barton, *A History of Spain*, pp. 23, 27.

⁶⁰ Barton, *A History of Spain*, p. 128.

⁶¹ Barton, *A History of Spain*, p. 134.

Overview

Clearly, each study employs different methodologies, handling different genetic characteristics, breaking the Peninsula up into different areas, concentrating on different regions, and comparing results with different north African groups. Nonetheless, what emerges consistently, across all these papers, is the concentration of genetic sequences characteristic of North Africa in higher concentrations in the North West than in any other part of the Iberian Peninsula, in defiance of a seemingly natural geographical drift across the Strait of Gibraltar. If the geography seems counter-intuitive, there are two possible ways of providing chronological context to explain the perceived anomaly: diversity displayed in the genetic traces, and known historical events.

As for the former, although the earliest of our studies (Larruga et al., 2001) reported high diversity and thus contemplated prehistoric migrations, all of the subsequent studies agree on quite the opposite: a lack of diversity that points towards relatively recent events explaining these traces. Many of the studies then leave it there with a rather vague affirmation of an origin during what they term the “historical” period. Exactly what they mean by this is unclear. Botigué initially talks in terms of 240-300 years, but then backs away from this periodisation for being too low, arguing instead for a “possibly much earlier” migration. Adams seems to contemplate the medieval period, while Bycroft produces the most precise chronologies pointing insistently to the early-medieval period, but then discounts said chronology entirely when referring to Galicia as a result of a misunderstanding of the historiography cited.

It is possible that the lack of diversity is what pushes some of our authors away from the early-medieval explanations that they almost unanimously reject in favour of a range of early-modern phenomena involving possible migrations to the North West from the Canaries, Granada or Valencia and that would be understandable, even though absolutely no evidence is presented for sixteenth and seventeenth-century migration into Galicia and León. However, all too often the explicit reason given for rejecting the eighth-century hypothesis is the perception that north-western Iberia was never under Muslim control, and as their stated main reason for rejecting an early explanation, this is the question I want to take issue with in this final section. It is not always clear where the idea comes

from, as the cited historiography (Chejne, Collins, Barton, etc.) simply does not support such a reading, and much less in such dogmatic terms. Nonetheless such ideas reappear time and again in these studies:

- “[the NW] distribution and its high diversity in Iberia has ruled out that historic events such as the Moslem occupation are the main causes of its presence in the Peninsula” (Larruga 2001);
- “northern Iberia was never under permanent Islamic administration” (Pereira, 2005);
- “the invaders had conquered the entire peninsula, with the exception of the northern Basque country, Cantabria, Galicia, Asturias, and most of the Pyrenees in the north, which remained largely unoccupied” (Adams, 2008);
- “the region of Galicia as it is defined today (north of the Miño river), was never under Muslim rule” (Bycroft, 2019).

Narrative accounts of the invasion

In the light of such negation it is pertinent to point out that several different narrative sources do in fact refer to the conquest of north-western Iberia. That does not in itself prove a thorough, profound and long-lasting Muslim influence on the region, as our sources simply don’t admit such certainty,⁶² but any negationist dogmatism needs to be nuanced allowing the implications of the genetic distribution to be digested free of aprioristic assumptions.

Ibn al-Qūṭīyya (d. 367/977), for example, one of the earliest chroniclers of the invasion, tells us that “Ṭāriq traversed gorges and mountain passes before launching himself brusquely into the lands of Galicia, reaching the city of Astorga”.⁶³ Galicia (i.e. *Yīllīqiya*) perhaps should be interpreted in the generic sense in which it is most commonly used

⁶² Manzano, “Las fuentes árabes sobre la conquista de Al-Andalus”, above all the fourth section “Divergencias en las fuentes árabes”, from p. 412 onwards.

⁶³ “[Ṭāric] pasó desfiladeros y puertos y se lanzó bruscamente en tierras de Galicia, hasta llegar a la ciudad de Astorga”, p. 166 in Ribera’s edition *Historia de la conquista de España de Abenalcotía el Cordobés*. The *Fath al-Andalus* refers to the conquest in near identical terms, “afterwards he attacked the territory of *Yīllīqiya*, reaching as far as the city of Astorga”, *Fath al-Andalus* I. 22 (in Penelas’ edition, pp. 16-17).

in the Arab sources, referring to north-western Iberia in general, but the repeated references to Astorga, here and in other sources, point to significant Berber presence specifically in the region our genetic studies keep pointing towards. A complete trajectory from east to west across north-western Iberia appears in the work of Jiménez de Rada, seemingly drawing on Aḥmad al-Rāzī: “and then he [Ṭāriq] came to Amaya where he seized many thousands of captives and great riches and treasures, and thence to the Gothic Fields where he devastated Astorga”⁶⁴. In the *Chronicle of Alfonso III* there is a list of some thirty north-western cities sacked by Alfonso I of Asturias ca. 750, and which we are told had previously been occupied by the Saracens.⁶⁵

A generation after the conquest, a rebellion by the Berbers against the Arabs sees north-western Iberia mentioned once again in the chronicles, this time in the *Fath al-Andalus*: “In al-Andalus [the Berbers] rose up against the Arabs who were living in *Yillīqiya*, Astorga and the cities beyond mountain passes”⁶⁶. Note that *Yillīqiya* and Astorga are both explicitly stated as being in al-Andalus. That there was still a Muslim presence in the North West after the crushing of the Berber rebellion becomes clear a decade later in 750-751:

The Muslims of Galicia and Astorga resisted [Pelayo] for a long time, until the outbreak of the civil war of Abol-Jatar and Tsuaba. In the year 133 (the Arabs) of Galicia were defeated and expelled, becoming Christian those who doubted as to their religion, and ceasing to pay tributes. Of the others, some were killed and others fled across the mountains towards Astorga.⁶⁷

⁶⁴ “exinde uenit Amayam ... et cepit ibi multa milia captiuorum et thesauros et donaria magnatorum; exinde Campos Gothicos et Astoricam deuastauit”, Jiménez de Rada, *De rebus Hispaniae*, #111, as reproduced by Manzano, *Los relatos de la conquista de al-Andalus en las fuentes árabes*, excerpt quoted on p. 91; reference to Aḥmad al-Rāzī as a probable source on p. 9.

⁶⁵ “... plurimas ciuitates ab eis [Sarracenos] olim oppressas cepit, id est, Lucum, Tudem, Portucalem, Bracaram metropolitanam, Uiseo, Flauias, Agata, Letesma, Salamantica, Zamora, Abela, Secobia, Astorica, Legione, Saldania, Mabe, Amaia, Septemanca, Auca, Uelegia Alabense, Miranda, Reuendeca, Carbonaria, Abeica, Brunes, Cinisaria, Alsanco, Oxoma, Clunia, Argantia, Septempública et cunctis castris cum uillis et uiculis suis ...”, *Crónica de Alfonso III* (*Ad Sebastianum* version), #13, edited by Gil Fernández, *Crónicas asturianas*, pp. 114-149.

⁶⁶ “En al-Andalus se levantaron contra los árabes que vivían en *Yillīqiya*, Astorga y las ciudades más allá de los desfiladeros”, *Fath al-Andalus* II. 26 (in Penelas’s edition p. 42).

⁶⁷ “Los musulimes de Galicia y Astorga le resistieron [a Pelayo] largo tiempo hasta que surgió la guerra civil de Abol-Jatar y Tsuaba. En el año [1]33 fueron vencidos y arrojados (los árabes) de Galicia, volviéndose a hacer cristianos todos aquellos que estaban dudosos

These twin episodes of rebellion (first Berber ca. 740, then Asturian ca. 750) confirm what the conquest narratives had told us about the North West being conquered some thirty or forty years before, and if people are fleeing across mountains towards Astorga it implies a significant presence even further north west as late as 750. But they also mark the effective end of Andalusí control of the region, meaning that even if we accept that it was initially subject to some political control, this was relatively brief in historical terms, at little more than a generation. This brevity of political control is then used to question whether the observed genetic traces could possibly be the result of such a period, but this confuses political control by Córdoba with possible demographic continuity by their erstwhile Berber allies, now enemies. That the Emirate lost control of the North West does not prove an end to Berber presence therein. Moreover, and very problematically, by slight of hand this brevity of occupation all too often transforms into nullity in the genetic studies.

Each of these narrative sources, if taken alone, can be considered problematical, exaggerated, late, derivative, propagandistic, but taken jointly as a body of evidence they are practically all the sources we have, and they all point to the North West having been subdued in one sense or another, no matter how fleetingly or superficially, and this is what the historiography referenced by the geneticists actually states. By contrast, there are no sources which state that the North West went unconquered. Having said all this, Muslim control of the North West was almost certainly relatively short-lived, and perhaps superficial too. It is even conceivable that this range of sources, independent as they are in origin and language, belonging to both Arab and Asturian traditions, is misleading us by magnifying the scale and intensity of conquest for propaganda reasons, and the utmost caution should be exercised with all early medieval narrative sources. Even so, to dogmatically assert that the North West was never under Islamic control is clearly wrong, and is not actually what the cited historiography tells us. Nor do the alternative explanations offered make much sense: a

en su religion, y dejando de pagar los tributos. De los restantes, unos fueron muertos y otros huyeron tras de los montes hácia Astorga”, *Ajbar Maymū’a*, p.62 (p.66 in Lafuente’s edition). The words ‘los árabes’ seem to be Lafuente’s addition, and we note that in the preceding sentence the phrase used is simply *Muslims* which could of course refer to Berbers rather than to Arabs.

prehistoric solution is incompatible with the low diversity observed by all the recent studies, while the early-modern scenarios contemplated are to say the least unconvincing, and again are unsupported by the historiography cited.

Conclusions

The situation is clearly a complex one: our written sources are indisputably problematical; there would appear to have been multiple waves of North-African migration across the Straits of Gibraltar in both prehistoric and historical periods; and setting aside the chronological issues, it is far from easy to discern what social dynamics are behind such genetic concentrations. Moreover, different methodologies have been employed in these studies so clearly there is a potential complication there, though the fact that divergent approaches point towards similar results surely supports our main conclusion, namely that there is an anomalously profound North-African genetic footprint in north-western Iberia. To move from this observation to firm conclusions about the origins of said footprint seems, however, risky: these traces do not prove significant early-medieval migration, as nor indeed do the historical sources, but they certainly don't disprove the possibility. The degree of doubt surrounding all these questions should be reflected in the genetics articles, which would allow the authors to reframe the seemingly paradoxical evidence, bring it into line with the rest of their findings and thus question existing historical orthodoxies and force historians to do likewise. In so doing, an early medieval origin should be resurrected as a plausible hypothesis, and moreover one that indeed should arguably be prioritised in accordance with Occam's logic, as the only significant demographic displacement from North Africa to north-western Iberia cited in historical sources, no matter how problematical these might be. Medievalists too have been guilty of not engaging with what is now quite a sizeable corpus of genetics studies offering some very coherent results which are of potentially great significance to our understanding of the eighth century in north-western Iberia. The intention of this paper is not to cast blame, as interdisciplinary studies are notoriously problematical, but to draw attention to a fascinating corpus of information that can potentially shed light on a

period in desperate need of fresh perspectives, and accordingly the opportunity offered to us should not be marginalised by methodological complexities.

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