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Majied Robinson* The Population Size of Muḥammad's Mecca and the Creation of the Quraysh

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Abstract: In this paper we will show how Qurashī patrilines and marriage records can be statistically analysed to generate an estimate of the tribe's size at the time of Muḥammad. By extension this will also give us an estimate for the population size of Mecca. We will begin by using the marriage data preserved in a genealogical work to identify a cohort of adult Qurashī male contemporaries of Muḥammad. We will then divide this cohort into men who had brothers versus those who did not. It will be shown that this ratio is exactly what we would expect if we were modelling a complete population and therefore it cannot be a sample. With this in place we can extrapolate the number of women and dependants that would have been linked to each man, giving us an estimate of the tribe's size in the period. Supplementing this with selected historiographical data will give us the population size of Mecca. The resulting findings raise a series of questions concerning Qurashī origins that will then be addressed by applying a similar methodology to the eras before Muḥammad's. This will illuminate the manner and timing of the emergence of the Quraysh as a distinct entity.

Keywords: Early Islam, Quraysh, nasab, Mecca, jāhiliyya, prosopography

Introducing the Poisson Distribution

If we were to pick an adult male at random, from any period in human history,¹ we can calculate the likelihood of that man having had one son who reached adulthood. This is because the likely number of adult sons a man begets can be determined by the Poisson distribution.

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¹ We are talking only about *historic* populations here as we will for the remainder of the discussion. Predictions can be made for contemporary populations using the process described here, but we don't want to complicate matters by discussing children who may or may not make it to adulthood, and children who may or may not be born yet.

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The Poisson distribution is a discrete probability distribution that was introduced in the middle of the nineteenth century and has a long heritage in the modelling of populations.² The only piece of input data it requires is a figure for the average number of occurrences of a particular event. In our case this is the number of adult sons a man will beget. With this number in place the distribution can tell us the likelihood of the occurrence of any discrete variant such as the chances of a man having no sons at all, or an average number of sons, or any other number of sons.

To give us an average number of sons born per man, we will begin by assuming that the growth rate of the overall human population is effectively zero (other assumptions will be discussed below). A near-zero rate is the prevalent view of population growth in the pre-modern period and is in line with overall historic growth rates which are a fraction of a percent per year.³ On average therefore, every adult male produces one male child who reaches adulthood. This is the condition required to keep the population at a stable level.

Of course, not all men have sons who reach adulthood; some men have sons who die young, other men have no children, and others have only daughters. The slack though is taken up by men who have more than one son, and the proportion of men who do so can also be predicted by Poisson, as shown in Figure 1.

This shows that in a steady-state population 36.79% of the men will have no sons who reach adulthood. Of those who remain, another 36.79% will have one son who reaches adulthood, 18.39% will have two sons who reach adulthood, 6.13% will have three sons, and so on, with the proportion decreasing as the number of sons increases.

² The most notable early example of this is its use as a component of the Galton-Watson process (another 19th century discovery) that was first applied to the attrition of aristocratic names in England. Galton-Watson is particularly pertinent to this investigation as it also concerns the dynamics of patrilineally-bound male cohorts of stable size. WATSON/GALTON 1875.

³ The use of historiographical sources to establish long-term population growth rates in the pre-modern period are obviously problematic and there is no sense in discussing the myriad issues surrounding pre-modern demography to establish a point that no one in this field seriously disputes: namely, that world population growth rates in this period were very low. The same point, however, can be made using data drawn from evolutionary biology (SJÖDIN *et al.* 2012) to establish the fastest possible annual rate of population growth. This would be based on taking the smallest in the range of human population sizes from the most recent proposed time of human speciation (which is a population of 120,000 people living 130,000 years ago). We would then calculate the average annual growth needed to reach the 7 billion people alive today and take the growth rate to be exponential rather than logistic. This yields an annual human population growth rate of 0.008 %. By comparison, the current world human population growth rate is 1.07 % a year.

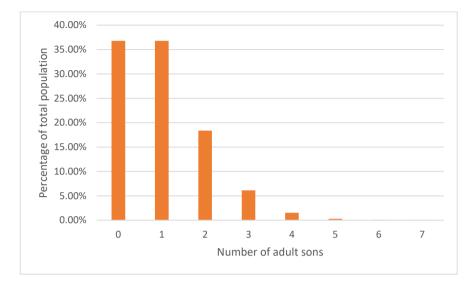


Fig. 1: Poisson distribution of the number of adult sons produced per man in a stable population.

The corollary of this point is that it is also possible to predict the odds of a randomly selected adult male having brothers. This will also be in line with Figure 1 above meaning that there is a 36.79 % chance of a randomly selected man having no brothers. The chances of a man having one brother are the same at 36.79 % and above this the odds decrease; there is only an 18.39 % chance of him having two brothers, 6.13 % that he will have three brothers, and so on.

Applying Poisson

Let us introduce a thought-experiment. If we imagine an historical Arabian tribe of stable size and whose membership was bound by patrilineality, what are the odds of two randomly selected men of this tribe being brothers? The answer – naturally – depends on the size of the tribe. Although the odds of selecting two men who both had adult brothers remain stable regardless of tribe size, the odds of selecting two men who are each other's paternal brothers depends on the overall population. In a tribe that has a hundred men for instance, the odds of picking a man who has one brother are 36.79 % percent. The odds of picking this brother from the remaining 99 are 1 in 99. In a tribe of 200 men, the odds of picking a man who has one brother are the same, but the odds of selecting this brother with our second pick are drastically reduced to 1 in 199. Regardless of population size, we can improve our odds by increasing our number of picks. Imagine again our tribe of 100 individuals. The odds of picking a man with one brother remains 36.79 %, and the odds of selecting this brother in our second pick are 1/99. Given a third pick, the odds of selecting the brother improve further to 1/98, then 1/97 in our fourth pick, and so on. If we are allowed 99 picks, then we will be guaranteed to find him, along with every other group of brothers in the tribe.

It is this discovery of brothers that is useful to us in our analysis of the Arabic historical sources. If we extract from these sources all the recorded names of the adult men of a tribe of unknown size, our first assumption would be that this is a sample of the original population. This is because we would expect that the historians who formulated these records would preserve only the names that had some sort of narrative relevance and had neither the desire nor the means to create a comprehensive census.

Yet the number of brothers in the sample may still give us an indication of the original population size. If the sample is of a reasonable size, yet it captures no brothers, we can surmise that the population was significantly larger than our sample. But if it does capture a few brothers, we can argue that the population was only somewhat larger than our sample. As the sample size approaches the population size, the more groups of brothers we will capture. If we find that our sample contains the same distribution of men with brothers to those without as predicted in Poisson, we know that we are no longer looking at a sample – we are looking at a complete population.

Introducing the data

With this theory in place, we can now turn to data preserved in the literature. Our principal source here is the *Nasab Quraysh* of al-Zubayrī (d. 848/851), the extant manuscript versions of which are descended from a transmission preserved by his student Ibn Abī Khaythama; this transmission most likely occurred during the reign of al-Mu^ctaşim (r. 833–842).⁴ Previous research has established that certain data categories within this source are of a quality high enough to be statistically analysed in a meaningful way.⁵

⁴ The estimate for the timing of the transmission is based on the fact that no caliph after al-Mu'tasim is named in the *Nasab Quraysh* and I have found no mention in the book of a dateable event that occurred after his reign.

⁵ ROBINSON, M. 2016, ROBINSON, M. 2017, and ROBINSON, M. 2020.

In order to make sure we are only looking at adult males, we will restrict ourselves to the names of Qurashī men recorded as having made at least one marriage or produced one child by a concubine. In terms of identifying brothers this can be very easily done thanks to Arabian naming traditions which take the form of patrilines. The patrilines also allow us to structure the genealogy generationally, which means we will not be conflating men who lived in different eras.⁶ According to most genealogists, a Qurashī is any individual with a patriline that extends to a forefather called Fihr. Extracting the male descendants of Fihr from the *Nasab Quraysh* yields 1,063 men who either married or produced at least one child by a slave woman. The data can be temporally structured by organising them generationally. Our Generation 0 is Quṣayy (who purportedly established the Quraysh at Mecca), which makes Muḥammad Generation 5 and Fihr Generation $-6.^7$

Let us begin with Muḥammad's generation which consists of 131 adult men. As discussed above, if this was a sample of a much larger population we would expect the number of brothers captured within it to be very low, and the total number of fathers that produced this sample should be very close to the sample size. But this is not the case. 80 of these men have at least one brother, and these 131 men were produced by just 82 fathers.

This is an indication that the sample size is very close to the overall population size. And we can go further still: if the generation that produced Muḥammad's generation also contained 131 adult men (which it should have done if the population size was stable in the long term), Poisson would predict that 36.79 % of them would not produce a son. 36.79 % of 131 is 48 meaning only 83 of them should appear in the patrilines of the adult men of Muḥammad's generation. This correlates remarkably closely to the figure of 82 fathers we find in the patrilines as recorded by the *Nasab Quraysh*.

⁶ See ROBINSON, M. 2016 and ROBINSON, M. 2017 for a discussion of this element of the methodology.

⁷ The selection of Quşayy's as Generation 0 is for reasons of clarity; although Muhammad's generation would seem to be a natural choice the result is that we would end up having to write Generation –1, 0 and 1 many times when discussing his contemporaries, which is typographically confusing.

Stable population, or expanding population?

This argument assumes that the overall population was not growing. In the long term, and across world populations more generally, this assumption is fair; populations grew incredibly slowly, at a fraction of a percent a year. But we cannot be sure that this slow growth was a feature of populations at the micro-level. It may be the case that small groups like the Quraysh went through boom-bust cycles of rapid population growth and followed by collapse.

This is important because it changes an assumption of the Poisson distribution. If the population size was doubling every generation (which is about as fast as it is possible for a human population to grow)⁸ it means Qurashī men were on average producing two sons who reached adulthood. Our original population will therefore contain a lot of brothers and a sample is more likely to capture these brothers. In these circumstances, the distribution of 82 fathers to the 131 men of Muḥammad's generation as recorded in the *Nasab Quraysh* is not a comprehensive record of a stable population, but a sample of a population that is rapidly growing.

This notion can be discounted because we find similar ratios of sons to fathers in the generations surrounding Muḥammad's. If the population was indeed doubling in size every generation, the number of brothers captured should fall correspondingly, and the number of fathers recorded as producing each generation should increase in line with this. But this does not happen, as illustrated in Table 1:

Generation	Number of men in Generation as recorded in <i>NQ</i>	Number of fathers that Poisson would expect this generation to have	Number of fathers of this generation as recorded in patrilines
4	137	87	80
5	131	83	82
6	151	96	87
7	143	90	88

Tab. 1: Estimated and recorded numbers of fathers by generation

⁸ Notably the Bedouin population in Israel, whose growth is one of the fastest of any human society ever recorded (RUDNITZKY *et al.* 2012).

The correlation between the Poisson estimates and the actual recorded figures are very close and importantly they are recording fewer fathers than Poisson would expect, which is not what we would find if the population were rapidly expanding. Putting this another way, if our records for Generation 4 were a sample comprising only half of a total population that was doubling every generation, then by the time we get to Generation 7 our total population has increased in size to 2000 men. But despite our supposed Generation 7 sample remaining similar in size to Generation 4, it still captures brothers at a very similar rate.

The simplest conclusion to all this is the rather remarkable one that the *Nasab Quraysh* of al-Zubayrī contains a complete roster of all the Qurashī men of Generations 4, 5, and 6. In other words, it is the sum total of all adult Qurashī men whose lives coincided with the adulthood of Muḥammad. Had these men been a historiographically significant subset of a larger population, then there is no simpler way of explaining how their paternal links could have been distributed along the lines of a Poisson distribution. The descendants of these men clearly remembered all their names and at least one of their marriages and preserved them long enough for al-Zubayrī to transmute them into the form we find them in our extant manuscripts.

An estimate of the population size of Mecca at the time of Muḥammad

We will now propose a means of converting these figures into an estimate of the overall population size of the Quraysh and – by extension – the population of Mecca. The methodology described below requires us to make a couple of assumptions before we arrive at these totals, but it will be shown that ultimately these assumptions do not affect the conclusions we draw from the findings.

We will begin with a piece of solid information: the *Nasab Quraysh* records 131 men of Muḥammad's generation, which in the above we have argued is the total number of males in this generation who got married and therefore reached adulthood. This piece of information potentially enables us to incorporate demographic datasets derived from better attested populations that contain distributions of adult men to women and children. The distribution used here will be that found in the data gathered on the demography of the south Sinai Bedouin. This data, gathered in the 1970s, found that 31.1% of the population were adult men.⁹

⁹ Kobyliansky/Hershkovitz 2002, 81.

It may be objected that there may be a huge variation between the demographics of the Quraysh at Mecca and the Bedouin of 20th-century Sinai. But looking at other sources we find that the multiplier is in line with our estimate. In his population analysis of Graeco-Roman Egypt, RATHBONE used a multiplier of adult men to overall population of 3.1; his estimate was derived from the range of figures provided by Boak's analysis of early twentieth century census data drawn from Indian and Egyptian populations.¹⁰ The multiplier derived from the Bedouin data is 3.21. The Bedouin study is therefore more than good enough for our purposes, and the use of this anthropological research also allows us to discuss demographic data with a greater deal of granularity.

Using the south Sinai Bedouin data, we find that the 131 men of Muḥammad's generation were a subset of a total figure of 421 tribespeople. Of these, 184 would have been children under the age of 15, and 17 would have been elderly men and women over the age of 60. A tribe of 421 individuals is in line with Bedouin tribal populations studied in the 1960s and 1970s; these range between 261 members and 785.

Estimating the population size of Mecca requires the discussion of some additional factors. Although there is no mention in our sources of significant non-Qurashī communities living in Mecca at the time of Muḥammad, there would have been a large number of non-Qurashīs dispersed amongst the households; the most common of these would be non-Qurashī women who entered as wives, and also slaves of both genders. In terms of the wives, we will assume that for every non-Qurashī wife living in Mecca one Qurashī woman had left to marry out of the tribe, meaning that there is no net change in this regard. In terms of slaves, we will take Muḥammad's pre-Hijra household as a model and say that for every adult male there was one slave. This would add 131 slaves, assuming that each adult male formed the nucleus of one household. This gives us a final figure of 552 individuals living in Mecca at the time of Muḥammad.

The population of Mecca cannot have been significantly lower than the estimated amount; even a crude assumption of an equal number of women to men and a smattering of children would give us a population of around 300 people. As for the upper limit, things are open to more variance. It is possible that a closer reading of the sources tells us that each Qurashī man had more slaves and wives than expected. Alternative demographic studies may reveal populations that had lower proportions of adult men than those suggested above. Improved mathe-

¹⁰ RATHBONE 1990, 130. The 3.1 multiplier is used by Yossef RAPOPORT in his study of Egyptian villages in the medieval Islamic era (RAPOPORT 2019, 69).

matical modelling may show that generational overlap is a factor that should be taken into account.

But even assuming the upper limit for all these revisions, we are always going to be talking about a population in the hundreds rather than the thousands. And this is the critical finding because it confirms something that scholars have long suspected: Mecca was small. Not only this, we now know how small. Until now historians have been forced to describe Mecca as 'a town' or 'a settlement' and this can mean a lot of things depending on a person's experience of towns and settlements. 'A few hundred people' on the other hand can only ever mean 'a few hundred people'.

While the assumptions and shortcuts above might look crude to a scholar of modern demographics, the results are as precise as the need to be for an early Islamic historian. The final estimates have brought the small size of Mecca into focus, and this allows us to use our data-led methodologies to move onto the next problem, namely: how did such a small population wield such enormous influence?

The Quraysh and the origins of Islam

The idea of a small group of people having a huge amount of power is not in itself a difficult one to conceptualise; it is the very definition of an elite. After the Islamic conquests, the Quraysh were indeed a tiny minority ruling millions of subjects, and it is clear when reading the traditional historiography that the post-Islamic status of the Quraysh as an indisputably noble tribe of elites with trans-continental importance was routinely projected into their pre-Islamic past.

But it is very difficult to see the pre-Islamic Quraysh as a sort of proto-caliphate. Caliphs had at their disposal consistent revenues drawn largely from agricultural surplus, money that they could then disperse to agents of coercion who would in turn protect the political and economic order. The situation of the pre-Islamic Quraysh was nothing like this. The land they occupied in the valley of Mecca supported no agriculture and as such the Quraysh were completely dependent on their neighbours if they were not to starve or be evicted.¹¹ And the relationship between the Quraysh and the nomads was nothing like the exploitative relationship between gentry and land-tied peasantry; unlike farmers, pastoral nomads were highly mobile and could easily change their allegiances.

¹¹ DONNER 1977, 251–252.

We do not need the Poisson distribution to tell us that we have a problem here and this problem of Qurashī weakness in the pre-Islamic period runs far deeper than terminology; in fact, it can be used to call into question the very premise of Qurashī presence in pre-Islamic Mecca. Over 30 years ago, Patricia CRONE used this very paradox as part of her efforts to undermine the Islamic historiographic tradition in its entirety by asking how it was possible that Muḥammad and his 'nest of robbers' were able to overthrow the supposedly elite Quraysh living 200 miles away.¹² So weakened does she find the traditional narrative that she goes on to suggest that the connection between Islam and Mecca was a construct of the post-Prophetic period.¹³

But CRONE does offer an alternative and less radical explanation for the paradox by suggesting that Mecca's role in the Hijāz must have been a lot more minor than the later historiography supposed.¹⁴ This explanation is shared by other scholars; Aziz AL-AZMEH for instance argues that the Quraysh must have used alliances to project military power as they were 'neither numerous nor particularly martial' and leveraged the religio-mercantile power of the Meccan shrine towards diplomatic ends.¹⁵ Fred DONNER makes a similar case when discussing Mecca's food supply, arguing that the ecology of the valley meant the Quraysh were reliant on mutual alliances to keep open the trade routes that allowed them to exchange local non-food surpluses for Syrian grain.¹⁶ This view of the Quraysh and Mecca as minor players is reflected in their complete absence in pre-Islamic poetry, historiography, or archaeology.¹⁷

But although the minimalist Mecca model explains how Muḥammad was able to defeat the Quraysh, it raises another problem: if they were indeed so weak, how did the Quraysh maintain their control of Mecca from the time of Quṣayy to the time of Muḥammad five generations – or 150 years – later?

15 АL-АZМЕН 2017, 161.

17 For a summary of this evidence in absence in relation to Mecca see MORRIS 2018, 43 n. 201 (the notion that Ptolemy's reference to 'Macoraba' denotes Mecca is comprehensively demolished in the rest of the same article). For the absence of the Quraysh in pre-Islamic poetry, see WEBB 2017, 82–83. In terms of mercantile importance, Michael BONNER points out that Mecca is mentioned only once in the *hadīth al-aswāq* (BONNER 2011, 23).

¹² CRONE 1987, 165.

¹³ Crone 1987, 162–165.

¹⁴ CRONE 1987, 150.

¹⁶ Having said this, DONNER's work referred to here pre-dates CRONE's *Meccan Trade* and, although he makes a good case for Qurashī vulnerability, he nonetheless describes Mecca as 'the dominant mercantile and cultic center of western Arabia, if not the entire Arabian peninsula'. He also repeatedly refers to Mecca as a 'city', which – as discussed below – is problematic. DONNER 1977, 249.

Some scholars suggest that the Quraysh had a special status in Arabia that ensured their safety. AL-AZMEH argues that the tribe 'were $laq\bar{a}h$, like the B. Hanīfa of al-Yamāma, lineages without great numbers and military prowess but nevertheless independent and not liable to exactions'.¹⁸ KISTER makes a similar point with reference to al-Jāḥiẓ, who 'stresses that Quraysh remained $Laq\bar{a}h$, independent'.¹⁹

But when it comes to the question of what policed this system, the explanations are found wanting. KISTER argues that the Quraysh owed their status due to the trade networks they had been building up from the time of Hāshim. But KISTER's explanations are deeply rooted in the narrative traditions and offer no riposte to the accusation that these reports are back-projections from much later sources.

AL-AZMEH meanwhile argues that the status of the Quraysh was linked to the retreat of Abraha's armies following their attempt to destroy Mecca. This conferred upon both the shrine and its guardians an inviolability respected and upheld by the surrounding tribes. Unlike KISTER's argumentation, we do have some outside corroboration here; the invasion of Abraha is mentioned in South Arabian epigraphy. Indeed, Christian ROBIN has argued for the historicity of Abraha's military move against Mecca as it 'provides an acceptable explanation for the primacy of Quraysh in the last decades of the sixth century, while this tribe, settled in an inhospitable region, was notoriously small in numbers and lived in poverty'.²⁰ ROBIN also points out that the traditional Arabic historical sources claim it was following this invasion that the tribe established its trade fair at 'Ukāz and the *hums* cult,²¹ which possibly indicates the boost to their status gained through the defence of Mecca.

But there are problems with the Abraha theory. The first is that it does not explain Qurashī primacy prior to the mid-sixth century; according to the traditional narrative, the tribe had been settled at Mecca for at least two generations by this point.²² Another is that there is no external evidence that the Quraysh had

22 On the pre-Abraha period, ROBIN quotes (with scepticism) Ibn Qutayba's report that the Romans had supported the Quraysh at Mecca from the time of Quşayy (ROBIN 2015, 153).

¹⁸ Al-Azmeh 2017, 161.

¹⁹ KISTER 1965a, 136-137.

²⁰ ROBIN 2015, 152.

²¹ The *hums* defies easy explanation; a simplified version would say it was an alliance of Arabian tribes centred geographically on Mecca and religio-politically on the Quraysh. Unsurprisingly, surviving reports concerning the *hums* have been heavily distorted. For a source-critical minimalist position, see Harry MUNT, "Hums", *EP*; for one more closely based on the traditional narrative, see KISTER 1965a, 132–141.

much to do with the retreat of the Ethiopians; although the South Arabian epigraphy names Arab tribes and mentions Yathrib in connection to the invasions, it does not make any reference to Mecca or the Quraysh. Not only this, both anthropological study and the historical sources themselves emphasise that Arabian peoples are as fluid in their beliefs and loyalties as anyone else when living a life free of institutional authority.²³

A more convincing resolution to the problem is found in our genealogical records. Analysis of the generations that came before Muḥammad's father will reveal that much of what we are told about the early Quraysh in the traditional literature is wrong; that the Quraysh were not an ancient tribe of noble standing and had not been at Mecca particularly long prior to Muhammad's birth. Their appearance in the form we now know them coincides with the events of the mid-sixth century and was probably done through a collective alliance of Central Ḥijāzī tribes. Before this point they would not have been known as the Quraysh and they would not have been residents of Mecca.

The early Quraysh

The statistical analysis of the patrilines of Generations 4–7 has shown that the records of the *Nasab Quraysh* in this period are representative of a complete population that was largely stable in size. This is reflected in the genealogical data itself where these generations represent a plateau in the number of records held for various data categories. We can see this when we consider Figure 2, which details the numbers of Qurashī married men per generation:²⁴

²³ A particularly illustrative example of this is the attempt by the Banū Baghīḍ of Ghatafān to establish a *ḥaram* in the style of Mecca at a watering hole called Buṣṣ. This provoked the indignation of the leader of the Kalb who deliberately violated its sanctity by executing a protected member of Ghatafān. The *ḥaram* was thus deconsecrated and no longer respected by anyone. See discussion in MUNT 2014, 37–41.

²⁴ The tailing off of the genealogy in the later generations is a historiographical quirk and not an indication that the Quraysh are dying out. Al-Zubayrī seems to lose interest in recording the generations closest to his own possibly for reasons of decorum or that this information was common knowledge.

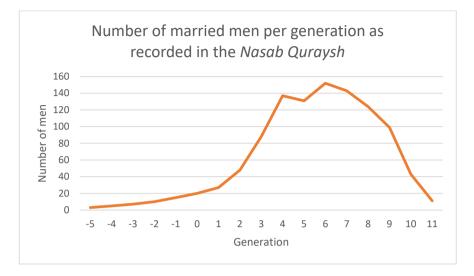


Fig. 2: Number of married men per generation as recorded in the Nasab Quraysh.

Of interest to us now though is the rise leading up to this plateau, particularly those running from Quşayy (Generation 0) to that of Muḥammad's grandfather (Generation 3). As discussed above, the population size of the tribe is most likely to have been stable over the long term; we would expect Quşayy's generation to have been the same size as Muḥammad's. The fact that it is so much smaller almost certainly means that people are missing.

Our first assumption here is that these earlier names are the survivors of a winnowing process that saw some patrilines die out and only those that lasted until the time of Generation 4 are preserved. The effect of this process (which is modelled by the Galton-Watson process referenced above) is that it looks like we have a growing population for these early generations.

But when we look more closely at these early generations, we notice that we have a serious problem with our data. The men of this era are begetting far more adult sons than expected in a Poisson distribution and far more than their descendants would go on to produce.

These divergences we will treat separately beginning with the divergence with the Poisson distribution. As seen above, Poisson can tell us the probability of a father having a certain number of sons who reach adulthood. The most common number of sons a man will produce is one, and the chances of him producing more sons than this decreases as the putative number of sons increases.

By the time we get to the upper reaches of these figures, the chances become vanishingly rare. The likelihood of a man producing seven sons who reach adulthood is 0.0073 %; in other words, we would expect this to occur once in a population of 13,700 adult men. Yet in Generation 3 (that of Muḥammad's grandfather) we have three instances of seven sons produced by one father, implying an adult male population of nearly 40,000 (and a total population of over 100,000). We also have one instance of six brothers to one father, two instances of four brothers to one father, and 12 instances of three brothers to one father.

As for the comparison with later generations, we can see that for Generations 0 and 1 the figures are plausible; just over a third of these men have no brothers, which is the same as it is for Muḥammad's contemporaries. But when we look at Generations 2 and 3 the alignment falls apart; we suddenly find far too many brothers in this period. The problem is particularly striking in Generation 2 where 18 men have one brother, while 9 have none (we would expect these two figures to be equal; see Table 2). For some reason, fathers in this period are raising far more sons into adulthood than they were able to before or after. Given the relative poverty of the Quraysh in the pre-Islamic period, this is not what we would expect to find at all.

Generation	Number of men	Number of men with no brothers	Number of men with no brothers as a proportion of the total (Poisson would estimate that this should be 36.79%)
0	20	9	45.00%
1	27	10	37.04%
2	48	9	18.75%
3	88	23	26.14%
4	137	53	38.69%
5	131	51	38.93%
6	152	55	36.18%
7	143	64	44.76%

Tab. 2: Number of men per generation without brothers

The genealogical records are therefore trying to convince us that the Quraysh produced more sons in the pre-Islamic period (when they controlled little more than a shrine) than they did in the caliphal period (when they controlled an empire). This is completely implausible and can only be explained in one way: these early relationships are not a biological reality but an imagined history. A more likely series of events is that several groups of men with a variety of ancestries rationalised their past into a combined family tree so that they could claim common descent. The high number of sons and brothers we get in Generations 2 and 3 are artefacts of this construction process; these fecund fathers are the points at which a large number of patrilines were grafted together.

Pace LANDAU-TASSERON,²⁵ the narrative evidence also indicates that this genealogical manipulation was a common practice. We see it at an individual level in the recurring historiographical motif of the discovery of a long-lost tribesman who had forgotten or neglected their true genealogy; this is how characters as important as Quşayy and 'Abd al-Mutțalib are recorded as having entered the tribe.²⁶ It is also how Muḥammad incorporated his former slave Zayd into the tribe, who for a period was known as Zayd b. Muḥammad. In other cases, whole groups were integrated and brought with them very long genealogies that were attached to the distant past; these are typically the Quraysh al-Zawāhir – the Outer Quraysh – who are joined at the levels of Fihr and his grandsons. The prime example of this is the Ḥārith b. Fihr, an obscure branch of the Quraysh who are markedly misaligned in terms of their generational numbering and the events and marriages in which they were involved.

The statistically unlikely numbers of brothers in Generations 2 and 3 are evidence that this adoption process was happening on a very large scale. And there is more. When we look at the marriage data more closely, we found that there lies within it the vestiges of the previous tribal connections of the men who became the Quraysh. This evidence is preserved in the names of the women these men married.

Kināna kinship

According to the genealogical and historical literature, the Quraysh's closest relatives were the Kināna; a large, neighbouring tribe from whom they broke away

²⁵ LANDAU-TASSERON 2003.

²⁶ For the return of 'Abd al-Muțțalib, see al-Țabarī, *Ta'rīkh* (1879–1901), 1, 1082–1084 (al-Țabarī, *The History of al-Țabar*ī, trans. Montgomery WATT, 6, 9–10), and for Quşayy see al-Țabarī, *Ta'rīkh* (1879–1901), 1, 1092–1093 (al-Țabarī, *The History of al-Țabar*ī, trans. Montgomery WATT, 6, 19–20). Both stories go back to Ibn Iṣḥāq. Also note that 'Abd al-Muțțalib's name literally translates as 'slave of al-Muțțalib', al-Muțțalib being the Qurashī 'uncle' who found him in Medina and brought him back to Mecca. This should also provoke more than a little suspicion regarding his original relationship with the Quraysh.

but maintained close relations. The process by which they broke away is suspiciously vague; when Quşayy arrives in the Ḥijāz (having grown up in Syria), he simply gathers the Quraysh from amongst the Kināna despite the fact that the Quraysh had hitherto never expressed any unified identity.²⁷

If this story were true, that the Quraysh did indeed break away from the Kināna, we would expect the earliest records of Qurashī marriages to express this. After all, the marriage records in later generations show that the most likely marriage partner for any individual is a cousin. But of the 200 Qurashī marriages made by men preceding Generation 3, we find only six instances of marriage between Qurashī men and Kinānī women, and four of these Qurashī men belong to the distant branches of 'Āmir b. Lu'ayy and Ḥārith b. Fihr.²⁸

Surprisingly, the one tribe with whom the Quraysh intermarry with the greatest frequency was one to whom they were very distantly related –another local tribe called the Khuzā'a.²⁹ There are 21 marriages recorded between the Quraysh and the Khuzā'a, and the Qurashī men who made these marriages hailed from central clans such as Sahm, Jumaḥ, 'Adī b. Ka'b, Taym b. Murra, Makhzūm, and the descendants of Quṣayy. It is only in Generation 3 that this dynamic changes with a sudden increase in Kinānī marriages, and it is only in Generation 4 that we have Kinānī marriages surpassing Khuzā'ī (see Figure 3).³⁰

²⁷ This problem is discussed in HAWTING 1990, 72. HAWTING suggests that it is evidence that what later became the Islamic narrative of Mecca's pre-Islamic past was actually the product of several narrative strands that were linked to various founder figures but post-dated them; the conclusions reached by his literary approach integrate very neatly into the prosopographical approach taken in this study.

²⁸ The quality of the data for Hārith b. Fihr is generally so poor that they need to be treated very carefully in any study that uses statistical methodologies. It is probable that the later generations are accurately remembered, though something will have to be done about the generational misalignment. Their relative weakness is mentioned in the context of tribal adoption in KISTER 1976, 82.

²⁹ The degree to which the two tribes were related depends on the genealogical records we consult; according to some, the Khuzā'a were attributed to the Southern branch of the Arabs (which would make them as distantly related to the Quraysh –as it was possible for an Arab to be). Others, however, place them within the Northern branch but linked to the Quraysh through a very distant forefather (see discussion in *EI2* "Khuzā'a," M. KISTER). Either way, they were not supposed to be as closely related to the Quraysh as the Kināna.

³⁰ The disappearance of marriages to both tribes in later generations is part of a phenomenon explored in ROBINSON 2016 showing that in the caliphal period the Quraysh began taking cousins and slaves as wives at the expense of non-Qurashī Arabs and Qurashīs who were not cousins.

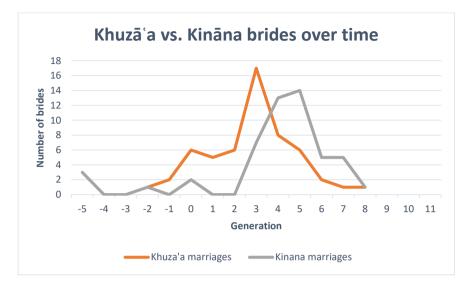


Fig. 3: Khuzāʿa vs. Kināna brides over time.

This has two major implications. The first is the stability of the marriage data. If the marriage relations were a fabrication of the late $j\bar{a}hiliyya$ or early Islamic periods, we would expect them to be fabricated in line with the agreed past of these eras, which was built on a genealogical closeness with Kināna. It would not make sense for sixth and seventh century Qurashīs to invent marriages between their ancient ancestors and the Khuzā'a with whom they believed they had limited genealogical or political connections. These ancient marriages are therefore historical artefacts – products of an era when the Khuzā'a enjoyed a much closer relationship with the Quraysh – or, more accurately, enjoyed a much closer relationship with the biological ancestors of the people who would later be known as the Quraysh.

The second implication is that this represents another major rupture in genealogical patterning that happened in the generation of Muḥammad's grandfather. We have already seen that the men of Generation 3 are produced by a statistically unlikely number of fathers; now we also note that these men (and, importantly, their sons) are the first to marry Kinānī women in large numbers. Given the stability and credibility of the data we have for the generations that followed them, we would have to say that the idea of the Quraysh being a cohesive tribal entity closely related to the Kināna is a product of Muhammad's grandfather's generation and not before this generation or after it.

If we take the mid-point of Muḥammad's adulthood as the year 610 and go back two generations, this means the creation of the Quraysh dates to the middle of the sixth century. From a geopolitical perspective this makes sense; it is taking place around the time of the Justinianic plague³¹ and in the context of Abraha's invasion of the Ḥijāz.³² We propose that in this turmoil a disparate group of a few hundred tribespeople saw an opportunity to establish a religio-mercantile project that reformulated their existing genealogical ties into a new quasi-tribal entity.

As a symbol of this project they settled at Mecca, a place whose inhospitability was a public statement of their success,³³ and they called themselves the 'Quraysh', a term linked to the meaning of 'gathering'.³⁴ It is at this point that the sources tell us they established the trade fair at 'Ukāz and the *hums* confed-

³¹ The plague of Justinian was recorded in the Syriac literature as having originated in Ethiopia. It spread to Himyar and a wave of illness is mentioned in an inscription on the Ma'rib dam dated to 543. The Syriac sources claim it lasted between 541 and 544 and was followed by eight years of famine and then an epidemic that affected cattle in 552 to 553 (MORONY 2007, 61–85). While a more recent publication has interrogated source material from the Mediterranean region and used this to challenge the argument that the Justinianic plague caused widespread devastation at the level of the Black Death, it accepts that there were localised outbreaks of a plague in this period (MORDECHAI *et al.* 2019). It should also be noted that this more recent study does not mention the Ma'rib dam inscription or the African origins of the plague.

³² It has long been thought that the Murayghān inscription of September 552 – which celebrates Abraha's successful invasion of the Arab tribal lands to the north – refers to the expedition that was recorded in the Arabic sources as having been defeated at Mecca. ROBIN, however, has argued that the discovery of a second inscription at Murayghān in 2009 may change this interpretation. This inscription commemorates a second invasion of the north and importantly it mentions Yathrib, which places the army securely in the Ḥijāz. This means that it is more likely to be this invasion that entered Qurashī origin mythology. ROBIN goes on to argue that this inscription was made after the 552 invasion and before the summer of 554. See ROBIN 2015, 152, 169–170; and ROBIN 2012, 525–553.

³³ The creation of sacred spaces as a means of demonstrating status is discussed in MUNT 2014, 36–41. Quite what Mecca was prior to this point is going to require a re-reading of the sources; many of them make no mention of permanent inhabitation prior to Quşayy's takeover, which leads me to think that the Quraysh were its first settled population (WATT comes to a similar conclusion in *EI*² 'Makka', as does KISTER 1965a, 126).

³⁴ Quite what 'Quraysh' meant at the time of the tribe's formation – or even during the life of Muhammad – is unknowable. Our definitions come from later periods where historians and genealogists who clearly struggled to explain where the word came from, although they were largely adamant that there was no founder-figure called 'Quraysh' in the patrilines (an alternative definition proposed it meant 'little shark', which was taken as meaning that the tribe was a small predator that menaced larger fish). Jan RETSÖ discusses these issues in a footnote along-side the rather perspicacious comments that 'There are reasons to suspect that Quraysh, in fact, was some kind of association that originally was not based on claims of common kinship and genealogy' (RETSÖ 2003, 55 n. 41). This is as far as he goes though.

eracy.³⁵ Events in the 570s and 580s may also have played in their favour with the collapse of Himyar and the withdrawal of Roman support for the Jafnids in Syria. These empires took with them their networks of allegiances, thus creating a power vacuum in North West Arabia.

This new understanding of the Qurashī past explains so much that was impossible to grasp in our traditional narratives. When we understand the Quraysh as a small tribe whose status depended on the goodwill of powerful neighbours, we can understand the ease with which Muḥammad and his band of followers were able to defeat it. When we understand the Quraysh as being a relatively recent invention, we no longer need to explain how this precarious structure survived for two centuries in such a tumultuous environment. When we understand the formation of the tribe as a physical gathering rather than a genealogical reality we can explain the name, which – unlike the majority of tribal names – does not go back to an individual.³⁶ When we appreciate the fluidity of paternal relations we understand that the Qurànic prescription to 'call them by the names of their fathers' is a deeply political statement; this is not (just) about marriage law but an attempt to prevent early Muslims from forming alliances outside their community.

By leaving the valley of Mecca, Muḥammad and his converts were no longer part of the 'gathering'; they had exited the Quraysh, they were emigrants, and they were forming something else – a community of believers.³⁷

Further implications

At the end of her book *Meccan Trade and the Rise of Islam*, Patricia CRONE rounds off her critical demolition of the Islamic historiographical tradition with the claim that 'little has been learnt and much unlearnt'.³⁸ A generation later, and follow-

³⁵ The traditional sources place the establishment of the fair and the confederacy 15 years after the Year of the Elephant (KISTER 1972, 75–76).

³⁶ It has always seemed odd to me that before their defeat the historiographical tradition uses the term 'Quraysh' as a collective term for the enemy of the Muslims. This despite the fact that Muḥammad and many of his followers were – genealogically – Qurashīs themselves. Two of the four mentions of 'Quraysh' in the Constitution of Medina (lines 23 and 54 using Michael LECKER's numbering in *EI3* 'Constitution of Medina') also seem to refer to the Quraysh as outsiders.

³⁷ A further parallel between the early Muslim community and the one it left is the foundation of Muḥammad's market in Medina, which – like 'Ukāz – was to operate on a tax-free basis. The political dimension of this economic act was to undermine the power of one of the Jewish tribes of Yathrib (KISTER 1965b, 274–275).

³⁸ CRONE 1987, 203.

ing the methodologies that CRONE herself espoused, we can say the opposite. The statistical analysis of Qurashī marriage data has yielded an embarrassment of riches concerning the social dynamics of late antique Arabia and the emergence of Islam.

The above is, therefore, a beginning. With the methodological approach proven, the ground is prepared for future study on Arabian social dynamics in the Late Antique period. Four of these are suggested below:

1) Could many Qurashīs have come from the Khuzā'a? There are a surprising number of indications in the genealogical record to indicate that this is the case. In addition to marriages, we have several personal names that are suspiciously similar in the ancestry of both groups. More than this, we have the names of both tribes; unlike most tribes their names do not go back to an individual ancestor, and the name 'Quraysh' in its meaning of 'gathering' can be seen as the inverse of the root of the name 'Khuzā'a' meaning 'scattering'.

This does raise further questions; if the Quraysh were leaving Khuzā'a to join Kināna, it would require the acquiescence of the Kinānīs and would have required some of them to 'donate' a link in their patriline; this means there could be some 'genuine' Kinānīs amongst the Quraysh. There is also the question of naming; although it is easy to see why the Quraysh would give themselves a name that refers to their exit and gathering, it is harder to understand why the Khuzā'a would adopt a definition that emphasised their incohesion. Khuzā'a may therefore be an exonym that became canonised after the Quraysh established themselves as custodians of genealogical orthodoxy.³⁹

2) That *nasab* is an early form of Arabic literature is clear enough from the death dates of the authors of the genre's first extant works, with al-Zubayrī dying in 848/851, Ibn al-Kalbī dying in 819/21, and al-Sadusī (author of the *Kitāb Hadhf min nasab Quraysh*) dying in 815/816. We should also note the formulaic nature of the composition of the genealogical output of all three authors; all use *wa walad* as an opening formula for many of the sub-sections, and the two later authors use *wa hā'ulā* as a closing formula. These formulae were almost certainly derived from the Syriac Bible which uses the linguistic cognates to open and close the familial sub-sections in the genealogical portions of the Old Testament. This commonality between the three Arab authors (who had no significant familial, geographic, or scholarly connections) is possibly

³⁹ KISTER and PLESSNER discuss the claims of Qurashī origin made by the Khuzā'a though they indicate that they believe this to be a later construct rather than earlier reality (KISTER and PLESSNER 1976, 54-55).

an indication that they were drawing on a common tradition of much older heritage.

To these literary and historical arguments for early formulation we now must also add the remarkable consistency of the *nasab* information itself. It is inconceivable that information of this complexity and sensitivity could have passed through the same transmission process as the traditional *akhbār* corpus and survived intact. This means we must now start thinking about a new narrative of *nasab* literary origins –one that places the start of the process in the earliest decades of Islamic history.

This would require the formulation of a new narrative of *nasab* literary origins that places it not as a sub-branch of historiography but a product of a process more akin to that resulting in the written Qur'ān. With the Qur'ān we also have a work of both length and complexity that survived the first two centuries of Islam in the form it was originally delivered. It is possible, therefore, that both traditions stabilised during the time of 'Uthmān; had it happened any later we would have expected to see evidence of the geographically and politically fractured polity impinging on historical memory.⁴⁰ Furthermore, we can also point to the striking observation that every surviving manuscript written in Kufic script is a Qur'ān, with only one exception – and that exception is a genealogy.⁴¹

Admittedly, there are major divergences. The argument for early Qur'ānic composition is helped enormously by the existence of an early manuscript, something that is unlikely to be paralleled for *nasab* works. More than this, the *nasab* register was not closed with the death of Muḥammad but was added to by subsequent generations.

But the parallels are instructive. The Qur'ān stabilised early because this stability clearly mattered to the early community; the stability of genealogy shows that *nasab* mattered too. What we see in the *Nasab Quraysh* is therefore sedimentary layering of the past; the dynamic genealogical charter of

⁴⁰ SINAI discusses this at great length in his refutation of the emergent canon thesis of Qur'ānic origins. His argument that a unified Qur'ān and a common origin myth could not have formed in the early eighth century when the *umma* had splintered into Kharijite, proto-Shi'i, and pro-Umayyad factions clearly holds true for genealogical crystallisation, which would have been pulled apart by similar forces. SINAI 2014a and 2014b.

⁴¹ This point was made to me in person by François Déroche; the *nasab* in question is an undated 13 folio manuscript held at the Bibliothèque nationale de France under the catalogue reference 'Arabe 2047'. This fascinating work was for a long period mis-ascribed to Ibn al-Kalbī (it is actually of unknown authorship) and is discussed by 'Abd al-Sattār Aḥmad Farrāj in Ibn al-Kalbī, *Jamharat al-Nasab* (1983), 8–26, along with a useful transcription of the text.

Muḥammad's grandfather slowly ossifying into a fixed mythological past upon which layers of stable marriage records are added. Study of this interwoven development of orality, memory, and writing will further our understanding of the emergence of historical writing in the early Islamic period.⁴²

A final thought on this. In his *Ta'rīkh*, al-Ṭabarī makes an intriguing reference that Ibn al-Kalbī consulted the churches of al-Ḥīra to obtain information on the genealogy of the Lakhmids.⁴³ It would be easy to dismiss this report; the consultation of pre-Islamic records by Abbasid-era scholars is often a trope.⁴⁴ But given what we now know about the consistency of the *nasab* information and the linguistic links to the Syriac Bible, perhaps a reappraisal is needed.

- 3) The population size of Mecca given above is based on a gloss of the traditional narrative sources; there is far more information in here that needs to be systematically integrated. There may be Qurashīs that al-Zubayrī has missed (though there are unlikely to be very many), but more likely absences are the non-Qurashīs who are woven into the early narratives. Of particular interest are the $ahl\bar{a}f$ – a term that is normally translated as 'allies' or 'confederates' – who are non-Qurashī males who seem to be attached to individuals or sub-sections of the Quraysh. Is there a pattern to the distribution of these $ahl\bar{a}f$? Are they linked to the original tribal origins of these Qurashī individuals and sub-sections, and is this a clue to how the religio-mercantile relationship worked between the Quraysh and the surrounding tribes?
- 4) The findings above establish something that was long-suspected: the Quraysh and Mecca were minor actors in a regional context. This means we have to be more critical in our use of terminology linked to the Quraysh and Mecca, particularly when it comes to the use of the words 'noble' and 'elite'. In an excellent recent publication by HAGEMANN et al., a framework for this discussion has been offered by detailing the different ways in which elites can express their superiority.⁴⁵ Within this framework, the Quraysh are perhaps closest to being a 'non-governing elite'. With no private army or large number of men to call on, the Quraysh would have been limited in their capacity to credibly

⁴² For instance, in *Islamic Historiography* Chase ROBINSON explicitly tells the reader that *nasab* will not form part of his analysis (ROBINSON, C. 2003, 56). This presumably because he had no significant secondary literature to draw on.

⁴³ al-Țabarī, *Ta'rīkh* (1879–1901), 1, 770; al-Țabarī, *The History of al-Țabar*ī, trans. Perlmann, 4, 150.

⁴⁴ Szombathy 2004, 117, 127–128.

⁴⁵ HAGEMANN et al. 2020. The term 'non-governing elite' is introduced on page 25.

threaten violence in order to project their will. Instead, they must have had to express their power through negotiation and the consent of larger nearby tribes.

As for Mecca, its population size of 552 means we have to stop calling it a 'city' or 'town'. A more critical approach is needed here. We could perhaps turn to Hagit NoL's detailed discussion of the terminologies used to describe Near Eastern settlements from a range of linguistic perspectives.⁴⁶ Or we could turn to the references of tax collectors; of particular interest is al-Nābalusī's thirteenth century survey of the Fayyūm, where a settlement of Mecca's estimated size would fall on the borderline of a small/medium village.⁴⁷

In addition to this, I would suggest more ambitious contextualisation. In mind I have the much richer range of meanings inherent in the Arabic term *madīna* as highlighted by Nasser RABBAT. RABBAT emphasises in particular its connotations with the etymologically related terms for religion ($d\bar{n}n$) and jurisdiction ($dayy\bar{a}n$), and also that within the Qur'ān the term is used interchangeably with the word *qarya* (generally understood as 'village' or 'small settlement').⁴⁸ In this understanding, Mecca is a *qarya* that had acquired the socio-political functions of a *madīna*.

Borrowing from the historiographical tradition, we would suggest that these functions related to trade, dispute management, and religious officiation. In this model, the Quraysh are not an elite, or a priest-class, but a group of people who had cultivated a unique role for themselves within the Central Hijāz, a role to which a small degree of local status was attached, but a role that was ultimately bound up with the wider concerns of the peoples who surrounded them.

5) Some groups were less keen than others to enact the ban on adoption initiated by the revelation of the Qur'ān; witness Mu'āwiya's failed attempt to claim the loyal and able Ziyād as his paternal brother (he was actually the son of a Thaqafī prostitute and an unknown father). This sort of behaviour would have been entirely unremarkable in an earlier generation but in the middle of the seventh century it generated so much outrage that the caliph had to back down. It would appear that the Medinan Quraysh were the most heavily invested in policing the system; the *Nasab Quraysh* is itself a product of Medina and its composition takes place in the anti-*shu'ūbī* period.

⁴⁶ Nol 2019.

⁴⁷ RAPOPORT 2020, 72.

⁴⁸ Encyclopaedia of the Qur'ān 'Madina', Nasser RABBAT.

But perhaps the Umayyads were not the only ones to retain a pre-Islamic attitude towards adoption. The data reveal that there are a number of individuals in the later periods with an unlikely number of sons, particularly in the Hashimite branches. The biggest offender in this regard is 'Alī b. 'Abd Allāh b. 'Abbās, an ancestor of the Abbasid caliphs who produces a remarkable 33 children according to the *Nasab Quraysh*, a figure that Poisson tells us is exceptionally unlikely. Is it possible therefore that the Hashimites generally, and the 'Abbāsids in particular, were using the pre-Islamic adoption system to spread their network? Note that the term used for 'Abbāsid propaganda – da'wa – is related to the terms used for adoption (da'iyy), and that it was the 'Abbāsids who opened Islam to unfettered conversion by non-Arabs (until this point they had to become Arabs via the *mawlā* system). Also, the soldiers of the conquering army were known as the *abnā* al-dawla – 'the sons of the revolution'. Could this be more than a metaphor?⁴⁹

Conclusion

It is expected that the findings suggested above will rankle Islamic historians of both sceptical and non-sceptical mindsets. For scholars of the traditional school the idea of Qurashī Mecca as a recent invention is hard to swallow; it goes against everything in the historiographical narrative and the questioning of Muḥammad's own genealogy at the levels of 'Abd al-Muṭṭalib and Quṣayy sounds like controversialism. As for the sceptics, using a ninth-century source to propose a positivist historical narrative of the sixth century sounds very much like the sort of scholarship they define themselves against.

But once digested, scholars of both persuasions will see that there is here a framework of reconciliation. For the non-sceptical, the study shows that – as they have always argued – the historiography does contain a lot of information that faithfully represents the past. Not only this, the findings related to the status of the Quraysh help us resolve the paradoxes of Islamic origins that sceptical scholars have used to disregard the traditional literature in its entirety. As for Muḥammad's own lineage, we are not trying to say he wasn't really Qurashī; rather, we're saying that the Quraysh aren't really Qurashī – at least in terms of the way the historiography is asking us to understand them. We propose that as proud as the

⁴⁹ We should also note that the only major outlier of Muhammad's father's generation is al-'Abbās who has eight sons, which is far more than we should expect.

Quraysh must have been of their lineage, this did not prevent them from using genealogy as a type of currency to attract talented men into their group.

The genius of Islam was to subvert this message by injecting it with monotheist egalitarianism; to create a new gathering open to the poor, to women, to non-Arabs, and to slaves rather than just men who could provide material benefit to existing members. When the Qur'ān in verse 33:5 commands the believers to call their fellow believers 'by the names of their fathers' and to not worry if their fathers are unknown, we can see in this a momentous statement of monotheist intent; the relic of a rupture between the old Qurashī model that valued a person by his ability to maintain the group's status and a new doctrine that invited every believer – regardless of their origins, abilities, or wealth – to experience an unmediated relationship with a God who could not care less about secular markers of success.⁵⁰ All this is completely acceptable to scholars who think the traditional narratives to be broadly true.

As for the sceptically minded scholar, we would emphasise that there is no guesswork or inference at the heart of this study; it is the simple reporting of statistical fact. The *Nasab Quraysh* of al-Zubayrī contains the names of 131 men of Muḥammad's generation. The patrilines of these men reveal that they were born of 82 fathers. This is almost what we would expect it to be based on mathematical modelling assuming the data comprises a complete population of a stable size, an assumption borne out by analysis of the surrounding generations. This means that the existing Midrashic paradigm underlining much of modern scholarship on Islamic historiography – that it is a literature consisting of an unidentifiable core of solid information around which a mass of fabricated detail has proliferated – can no longer be held to be true for the *nasab* records. What we are looking at is an enormous quantity of high-quality information that represents relationships as they actually existed. Not only this, where there is fabrication, we have means of identifying it.

The breadth and depth of this information – both in terms of patrilines and marriages – invites an extensive re-reading of our source material for pre-Islamic and early Islamic history. We now have a framework for reading the voluminous non-Qurashī genealogies of Ibn al-Kalbī, which include tens of thousands of names stretching far across the Arabian Peninsula. We can now pick apart older relationships and coalitions using marriages and naming practices, and through this establish the original loyalties of the Qurashī clans. We can now re-read our historiographies and tease out sub-texts that align with our discoveries, which

⁵⁰ See Q 18:46 where wealth and children are earthly markers of success in contrast to $s\bar{a}lih\bar{a}t$ (good deeds), which are valued by God.

will have implications for both our understanding of how these historiographies evolved and how they can enrich our understandings of the past itself.

But most of all, the findings above bring the pre-Islamic and early Islamic worlds back to life.⁵¹ By seeing the networks preserved within the *nasab* literature as an iteration of a once-dynamic charter of social relations, we can place ourselves within the heady mix of politics, money, and religion that suffuses much of the traditional historiography and the Qur'ān. Through this we understand with greater clarity what it was that the Quraysh brought to the Islamic project; namely, an enormous depth and breadth of knowledge of how to balance the competing demands of powerful interest groups from a position of relative weakness. It was this open-minded pragmatism that allowed Islam to survive and thrive after the death of its founder and gave the members of this tiny tribe the skills they needed to lead a series of multi-ethnic, multi-faith polities for centuries to come.

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⁵¹ I have in mind here the following accusation levelled at Islamic historiography in CRONE 1980, 12: 'The Syrian pillar saints dispensing grace to local Arab tribesmen, the Coptic peasants, riotous Alexandrines or sophisticated Nestorians at home at the King of King's court, all these have been conjured away at a stroke and replaced by faceless '*ulūj* and *naṣāra* ...'.

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