

## NEWS AND COMMENTARY

Human migration

# Reappraising the Viking Image

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**O**ur supreme and holy Grace, protecting us and ours, deliver us, God, from the savage Northman race which lays waste our realms' (taken from a church antiphony, Magnusson, 2003).

New genetic analyses throw light on how these 'Northmen', better known today as Vikings, came to colonize the islands of the North Atlantic.

Vikings still hold a special place in the popular imagination as warriors and raiders, due in no small measure to the monastic literati of the day, whom were the frequent (Figure 1) victims of their plunder and slaughter, and, therefore, perhaps more than a little biased. However, the Vikings saw themselves more as adventurers and explorers. Many were not warriors, but rather farmers, traders and family men, looking for a new and better life outside Scandinavia. In the paper by Goodacre *et al.*, on page 129 of this issue we get a glimpse of both sides of this story through the differential genetic legacy of male and female Viking migrants across the islands of the North Atlantic. Their study examines modern diversity across this region in maternally inherited mitochondrial (mt) DNA, in concert with

that found in the paternally inherited Y-chromosome. Defining source populations from Scandinavia (Norway, Sweden and Denmark) and the British Isles (Ireland and inland Scotland), they have sought to quantitatively determine the contribution from these two potential parental populations to five putatively admixed regions – Shetland, Orkney, the Western Isles and the Isle of Skye, Iceland and North and West (N+W) coastal Scotland.

The term Viking is thought to have come from the Old Norse 'Viken', meaning 'men of the fjords' (Davies, 1999). From these Scandinavian bases, the Vikings ranged over much of Europe and beyond between the late 8th and mid-11th centuries. These expeditions may have begun as the medieval equivalent of 'smash and grab' raids, but later they matured into the founding of permanent settlements, with evidence of intermarriage between Viking settlers and the indigenous host populations (Davies, 1999). Viking settlement on the Shetland and Orkney Islands was well established at the end of the 8th century. Known as Hjaltland, Shetland is 200 miles (two sailing days) from the

Norwegian coast, with Orkney a further 60 miles to the south. Prior to Norse invasion, Orkney and the Western Isles had thriving indigenous populations, but Shetland was less populated and Iceland was largely uninhabited (Davies, 1999). The fertility of the land in Orkney made it an ideal political centre of Norse settlement, and, from here, the Northmen undertook island-hopping migrations to 'the isles in the west'. By the late 10th century, the Vikings had authority over Shetland, Orkney, N+W coastal Scotland, the Western Isles and the Isle of Man, as well as parts of Ireland. However, it is somewhat less clear how this authority translated to Scandinavian settlement patterns, both in terms of the number of Viking migrants and the nature of these migrations. In line with the popular 'rape and pillage' image, settlements are often thought to have been primarily male enterprises, with a lesser role for Scandinavian females. This can be seen from cemetery evidence on the Isle of Man, where burials are mainly of Norse males, with females from the indigenous population (Cunliffe, 2001). Also, British Isles women are mentioned in old Icelandic texts concerning the founding of Iceland, indicating that the Viking explorers had acquired wives and concubines from their settlements here.

In more recent times, genetic markers have been used to examine the question of Viking settlement in North-West Europe. Studies involving the Y-chromosome and mtDNA have been particularly important as both can yield highly informative nonrecombining haplotypes, which can be used to examine the population histories of males and females, respectively. Goodacre and colleagues (2005) have combined published data from both these systems, with further sampling from the Shetland Isles and additional genotyping, to investigate simultaneously both the maternal and paternal genetic legacy of the Viking era across North Atlantic Europe. Admixture analysis of these populations, based on current haplotype frequencies, indicate a substantial Scandinavian input into Shetland (~44%), Orkney (~30%) and N+W Scottish coastal (~15%) populations. Furthermore, this legacy is almost equally due to male and female settlers – a finding that may indicate that family units were the norm among the migrants to these areas. So, perhaps we had it wrong all these years and the vicious Viking warrior was really nothing more than a doting dad – but



**Figure 1** The traditional view of Viking migration – but new genetic evidence suggests that this is not the whole story. Kindly reproduced from Smith (1988).

this does not seem to be the whole story. Other regions, specifically Iceland and the Western Isles/Isle of Skye, show a marked excess (approximately double) of Scandinavian ancestry in their Y-chromosomes relative to their maternal mtDNA heritage. It seems, in these areas, that the Viking settlement was mainly for the unattached male, who subsequently 'acquired' partners from among the local populations. The asymmetry here is suggested to be best, and most simply, explained by geography and the physical distance of the new settlements from the Scandinavian homeland. That is, those settlements

closer to home, such as Shetland and Orkney, were easier to secure and, therefore, more suitable for family-based settlement. In contrast, those further north and west were on the frontier, a perilous unknown, best left to groups of lone male colonizers. It seems unlikely that this new perspective afforded by Goodacre and her colleagues would be any comfort to the worshippers praying for deliverance from the Vikings, as quoted above. However, it does illustrate, once again, the role for studies of modern genetic diversity, particularly when used alongside traditional historical,

linguistic and archaeological sources, in providing new and interesting insights into the scale and nature of past human migration.

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