## Edinburgh International Book Festival – Alistair Moffat

Every single person in the Book Festival Main Theatre today was descended from Africans, according to the author of a new book.

Alistair Moffat is someone whose face you might recognise without really knowing what he has ever done, except if you live in the Borders which, according to Magnus Linklater who chaired the event, Moffat virtually runs. He is a former Director of Edinburgh Festival Fringe, Director of Programmes at STV and the current organiser of the Borders and Lennoxlove Book Festivals. He is also Rector of St Andrews University, and said he is a scientist.

The purpose of his talk today was to introduce the audience to the matter of Scottish DNA. Now even if the thought of this makes your eyes glaze over, you really would have enjoyed this hour. Moffat is an engaging and eloquent presenter. He took us on a journey from Italians exploring Ethiopia in 1896 who discovered solidified lava containing human remains, to 1953 when Crick and Watson discovered DNA, and then onwards to an explanation of the genetic makeup of all Scots today. This, according to Moffat, is derived from DNA originating in Africa. Moffat proclaimed:-"We are all of us in this room descended from Africans." The study which he has engaged in appears to concentrate on the Y chromosome which the author explained is inherited in discrete blocks and so does not change as much. It also uses 'markers', which we were told are tiny errors of copying DNA, to work out how old a marker is, and when it developed.

And we apparently share 40% of our DNA with turnips, although Moffat said he had played against some rugby teams in the Borders who might have had a slightly higher percentage than that.

This was an accomplished performance from someone who is clearly very engaged and knowledgable about his subject. He managed to retain the interest of everyone in the packed RBS main theatre in complex historic facts such as a volcanic eruption in 73,000 BC which he said "had a huge impact on homo sapiens". Following this catastrophe, Moffat explained that the earth recovered, greened over and then, during a time of lower sea levels, a small number of people crossed the Red Sea into Arabia. And Moffat triumphantly exclaimed:-"And you are, all of you, their children."

Following this, the Ice Age ensued, resulting in northern populations fleeing southwards to escape its grip. On the journey back to Scotland following the thaw, it appears that "All Scots were briefly English", although we were also informed that Scotland is one of the most diverse nations on earth in terms of DNA. Part of the reason for this is that we are about as far North west as you can go, so simple geography meant that people stopped here.

But his most entertaining fact offered as a reason for population growth from 3000 BC was an unexpected one – porridge. It appears to Moffat from his research that simply by men settling down to farming rather than being huntergatherers, and growing porridge which could then be fed to infants, women were able to wean babies more quickly. This meant that any birth interval partly the result of breastfeeding was shortened, and more people were born.

This is a bold book. Or at least the claims made for it are very bold. Moffat began his talk by claiming that "This book encompasses the whole of history." It is a clever use of scientific knowledge combined with social history to explain where we Scots might have come from. Magnus Linklater suggested that it was also a way of linking history and mythology in there too, which Moffat agreed with. (Sensible to agree with someone who apparently has Viking roots...)

He concluded by saying:-"Our research goes on. It is the most fascinating subject."

Moffat and his co-author James F Wilson have established a DNA testing facility which you can contact through their website should you be interested in having your own DNA tested for any trace of the Neanderthal or indeed the Viking.

www.ScotlandsDNA.com