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Introduction

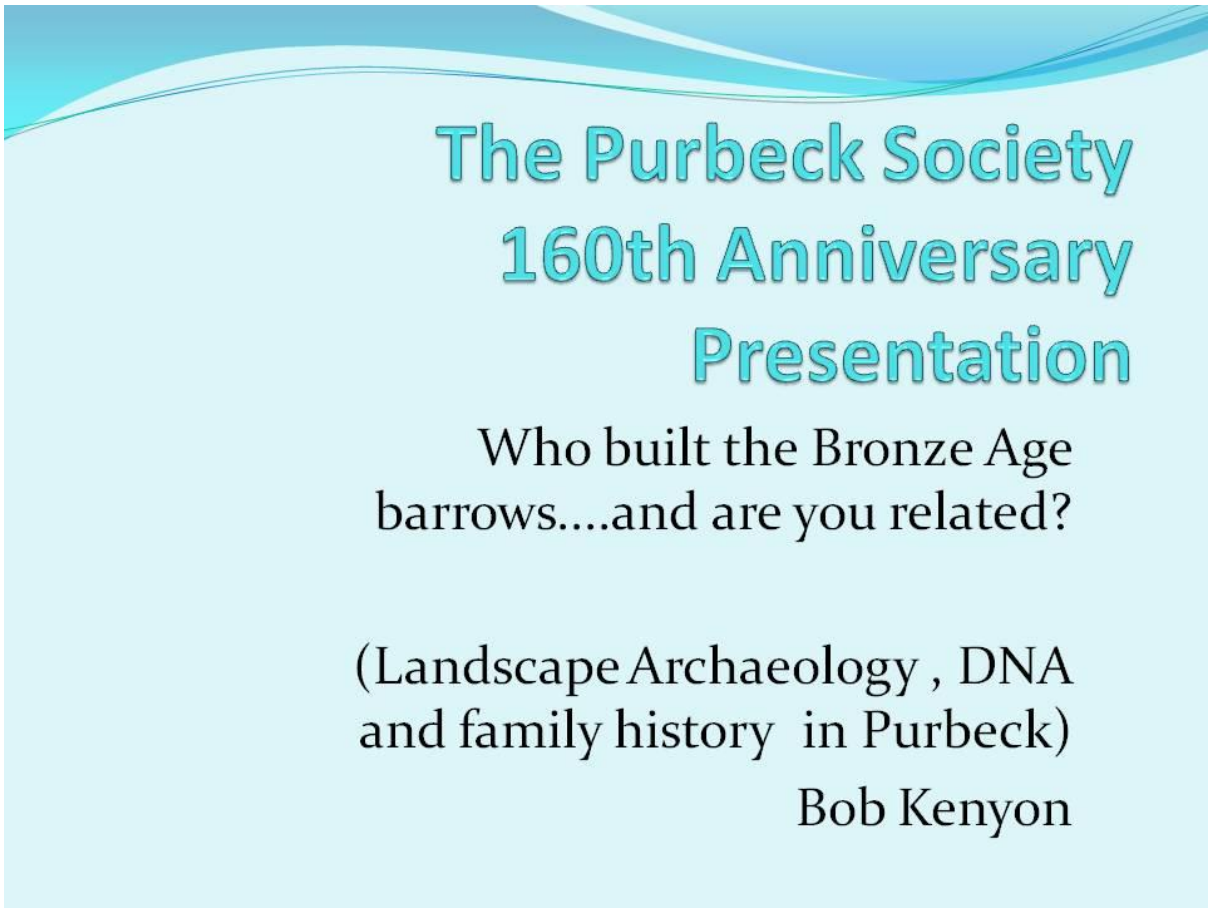
This document contains the slides and accompanying speaker's notes for the 160th anniversary presentation to the Purbeck Society which looked at past, present and future archaeology studies in Purbeck.

Appendix one of the document sets out a hypothesis that uses an archaeogenetic model to explain how past migrations and interactions of people created our archaeological landscape. The appendix is in the form of tables and maps that set out what we know from existing research about archaeological features and finds. The tables and maps include hypotheses about the migrations of people (based on existing DNA evidence and predictions about what future ancient DNA analysis may show) that may have created these features.

The Purbeck Society 160th anniversary presentation – past, present, future – 160 years of archaeological studies in Purbeck

John Austen's initial presentations to the Purbeck Society in 1855/56 presented information from then recent research into the archaeology of Purbeck. This presentation reviews Austen's presentations and provides updates to include the current research that is taking place at Compact Farm, Worth Matravers. The presentation then looks ahead to the next 10 years – explaining how modern and ancient DNA studies may transform our understanding of the archaeology. It explains how, by studying our own DNA, we will be able to see how our own direct ancestors contributed to the landscape archaeology of Purbeck and beyond.

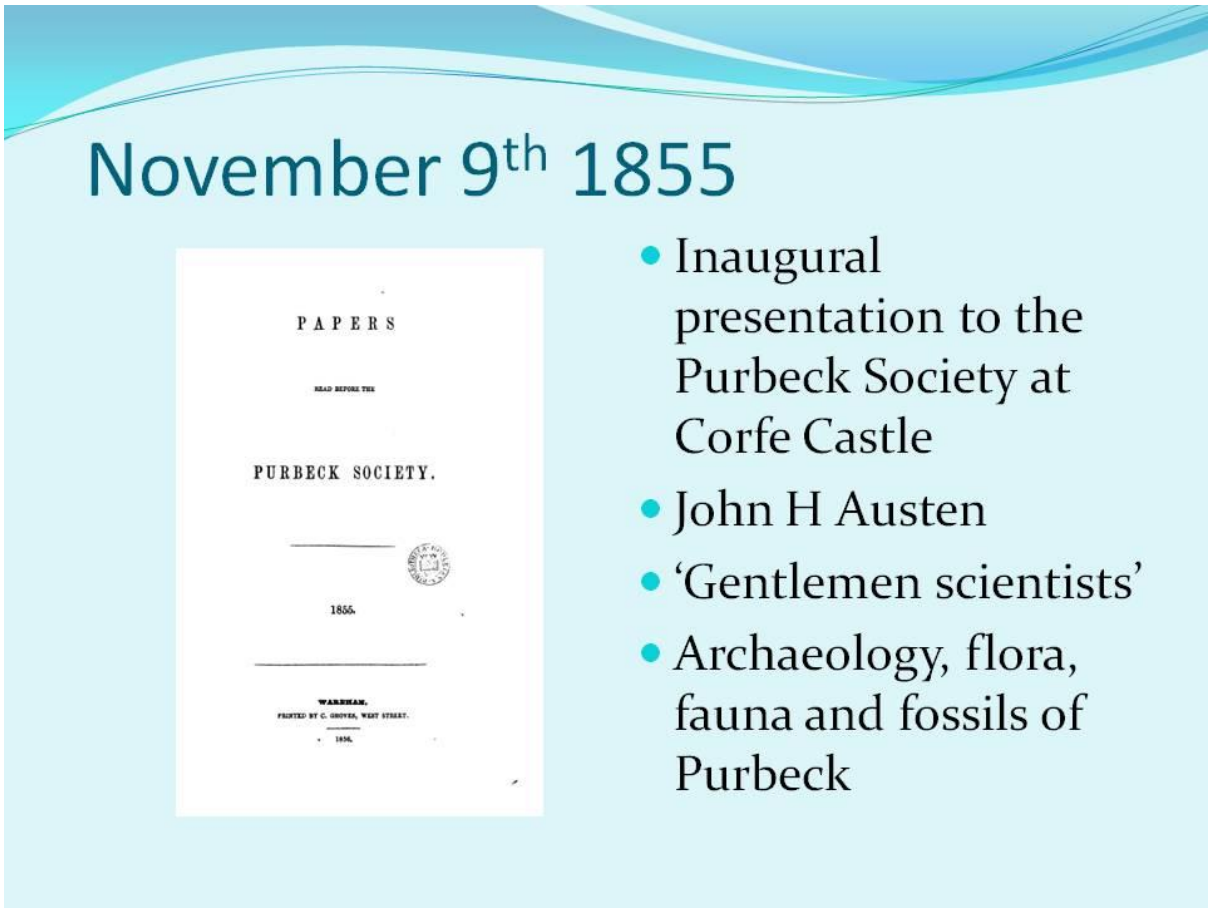
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Where have got to with our understanding and how might our understanding develop in the next ten years.

A 'think piece' based on a presentation given to the Purbeck Society on 13th November 2015 and updated with new research information April 2016.

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On the 9th November 1855, John H Austen made the inaugural presentation to the Purbeck Society at Corfe Castle. The Society began as forum for gentlemen scientists to discuss the archaeology, flora, fauna and fossils of Purbeck.

Some of the early presentations focussed on the archaeology of Purbeck - and in particular on the excavation of Bronze Age burial mounds called barrows or tumuli.

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Past – looking back 160 years



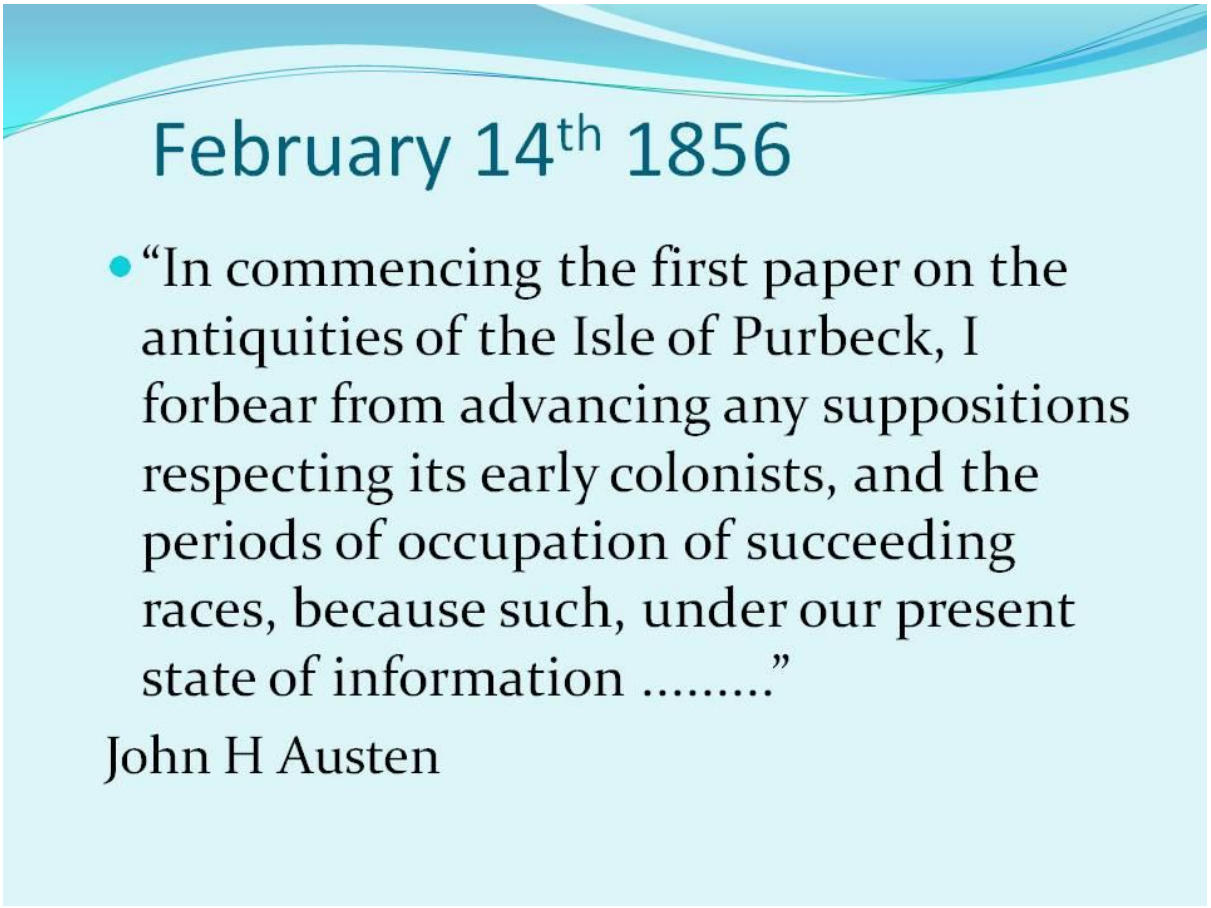
John H Austen's first presentation about tumuli, on 14th February 1856, was about his excavation of St Aldhelm's barrow. He found two later Roman burials inserted in the mound. The urn pictured above was from the nearby Afflington Barrow. It is a collared urn associated with the cremation at the centre of the barrow.

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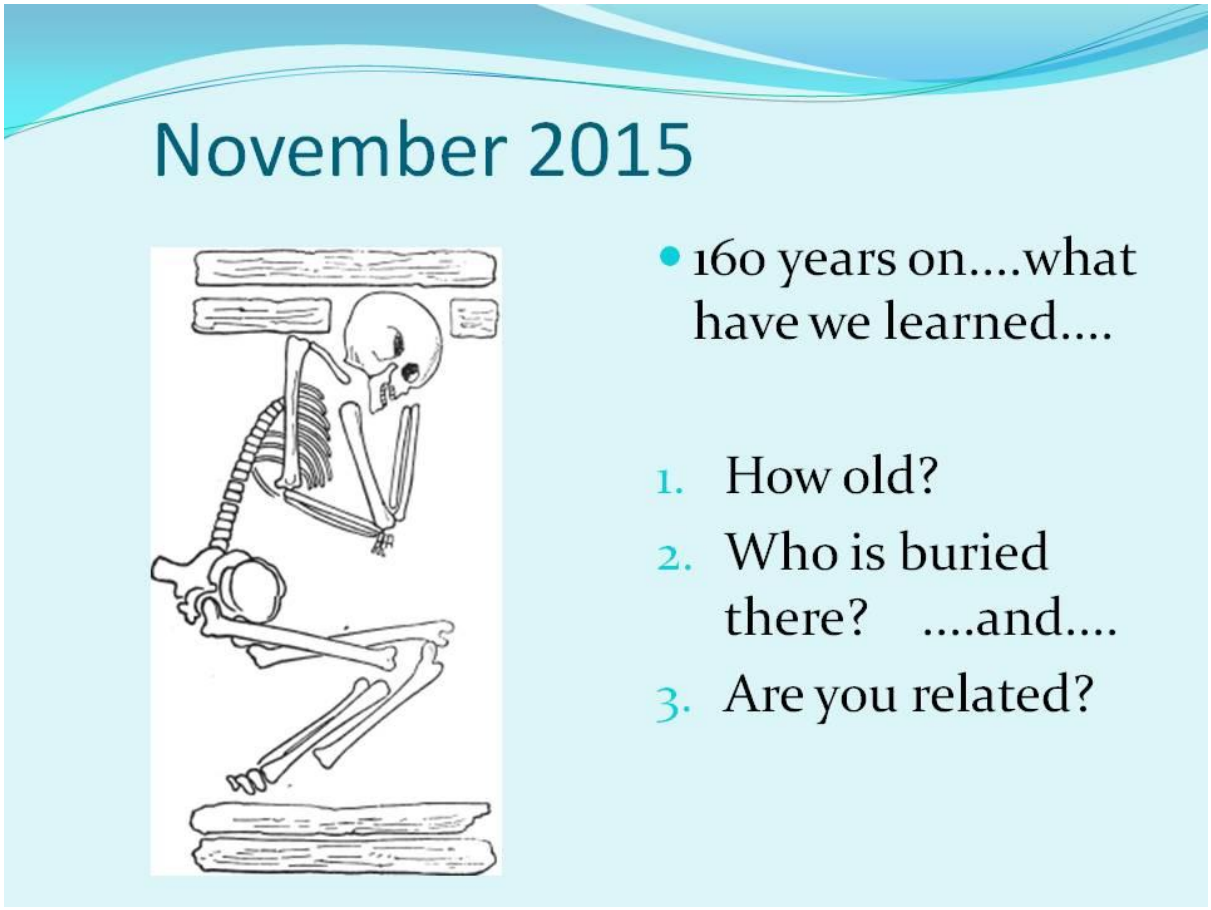
John H Austen's second presentation about tumuli considered those of the chalk ridge. He described an excavation of a barrow at Knowle Hill where he discovered a number of crouched burials within the mound. We might now recognise that type of burial as a Beaker style burial and indeed he recorded finding "ancient British pottery" along with the burial.

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John Austen had a particular interest in understanding who these people were and when they lived in Purbeck. He described them as ancient Britons but accepted that he did not have the knowledge to say who these people were or when they lived.

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So, 160 years on, can we answer John Austen's questions?

Do we know when these people lived?

Do we know who they are and where they came from?

And can we go even further - and tell if you are related to them?

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This presentation is split into two parts.

Part one – present – addresses advances in our knowledge of archaeology in Purbeck with special reference to the major research projects at Worth Matravers and Bestwall in Wareham. It will update us on progress in dating the sequence of landscape features created by people in the local landscape.

Part two – future - addresses the people themselves and presents a hypothesis for who those people were, where they came from and whether you could be related.

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Present - looking at our Compact Farm dig and Austen's work and what we've learnt 160 years on



The Compact Farm site at Worth Matravers is at the entrance to the village on the road from Kingston.

The site at was first excavated by Southampton University who found a Romano-British barn and earlier Iron Age Round Houses (Graham 2002).

In 2007, when the Worth Matravers Community Trust wished to build some affordable community houses for local people at the site, the Trust approached East Dorset Antiquarian Society (EDAS) to organise a community dig. The first objective in 2007 was to identify the extent of the archaeology so that the houses could avoid damaging the village heritage. The second objective n 2010 was to carry out a small rescue dig by the entrance to the site where the land had to be lowered to give access to the public road.

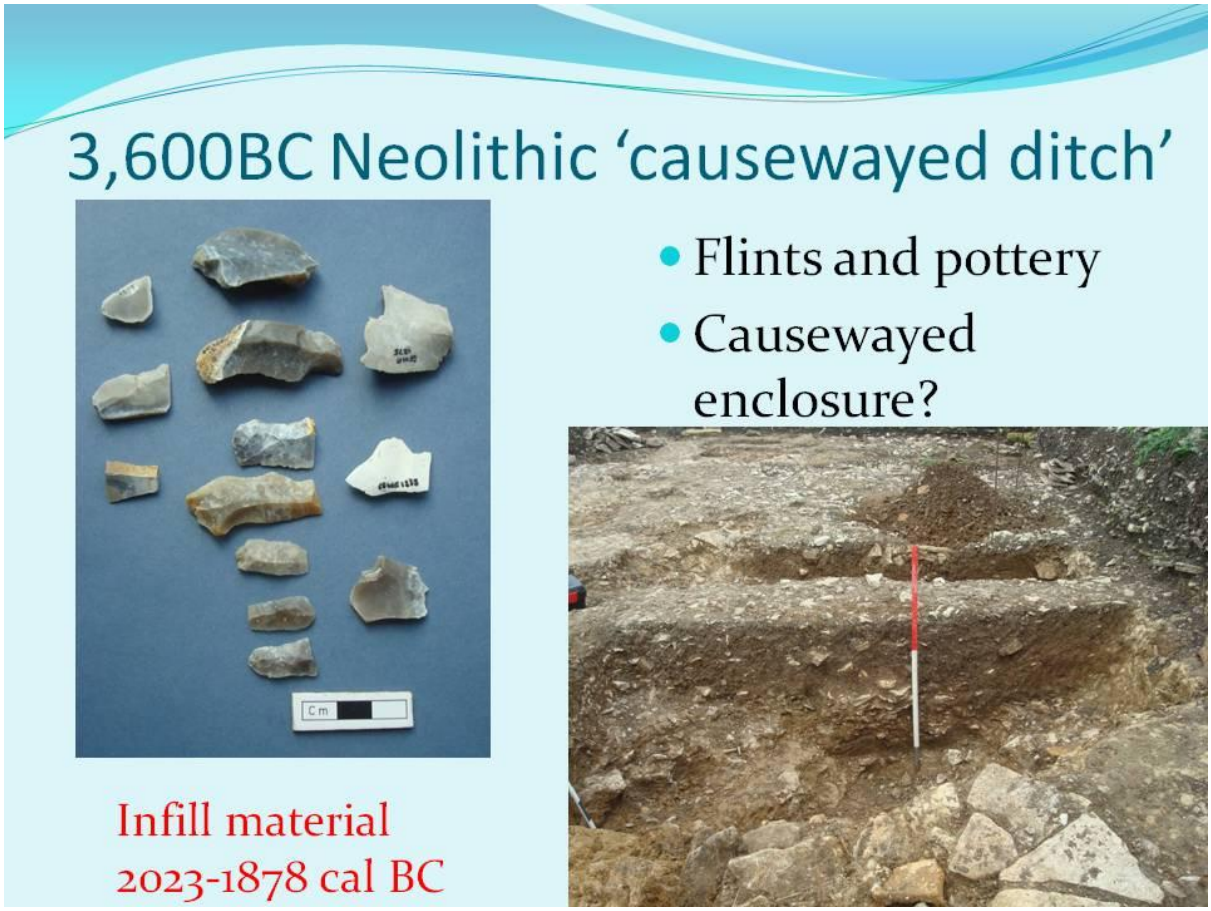
The dig was latterly led by Lilian Ladle MBE who organised a dedicated band of volunteers who carried out the excavation. The results of the dig will be published in the monograph series of Dorchester Museum. Lilian also led the volunteer dig and publication of monographs about Bestwall, for which she received her MBE.

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Below, I review the major findings from the Compact Farm dig starting with the oldest remains found and progressing through to the most recent.

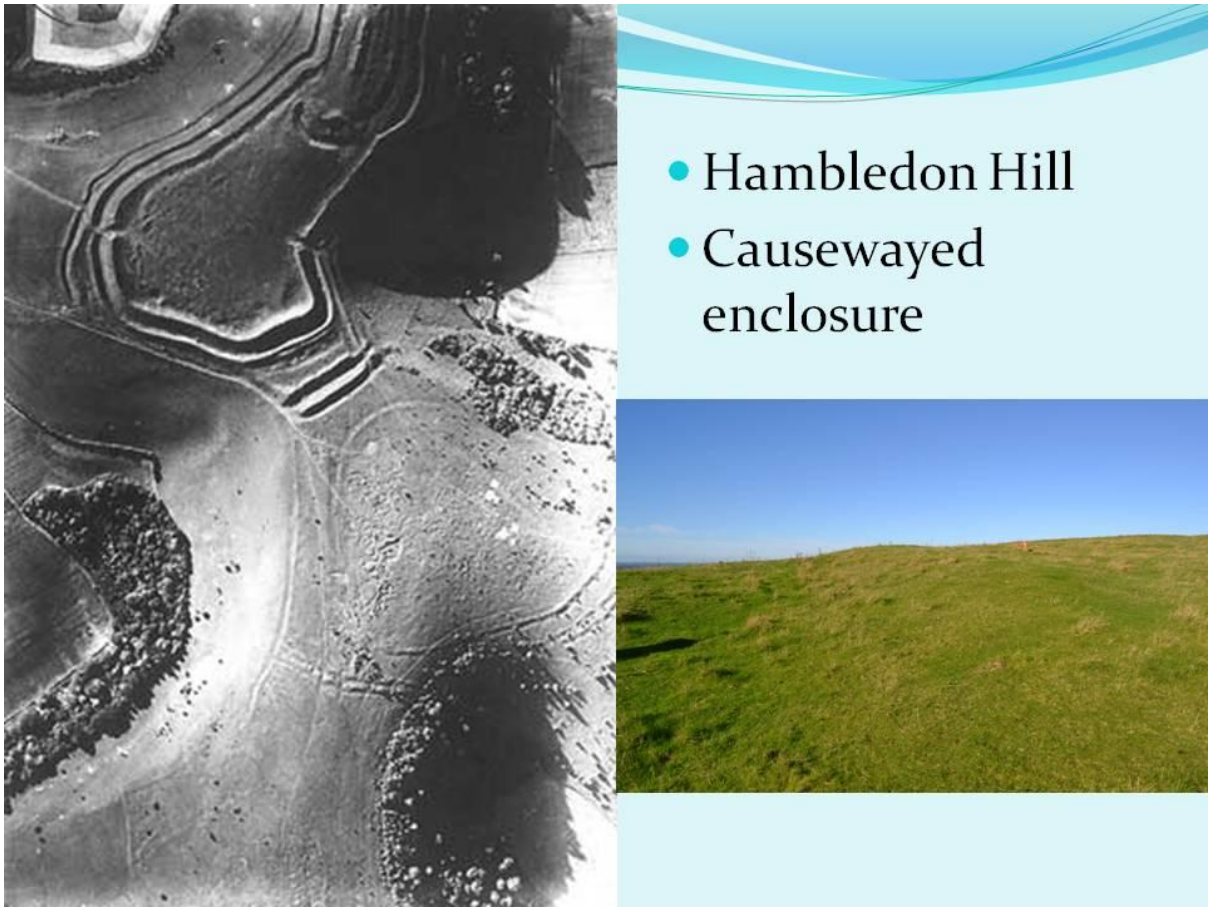
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At the lowest, or first, layer of the deposits on the site was a ditch feature containing Neolithic flints near the bottom of the ditch. A radio-carbon date from a higher level in the ditch infill gave a date range of around 1900BC. However, the flints in the bottom of the ditch indicate it may have been initially dug nearly 2000 years earlier.

This raises the exciting possibility that it may have been part of a hilltop causewayed enclosure - similar to those found across southern England, for example, at Hambledon Hill.

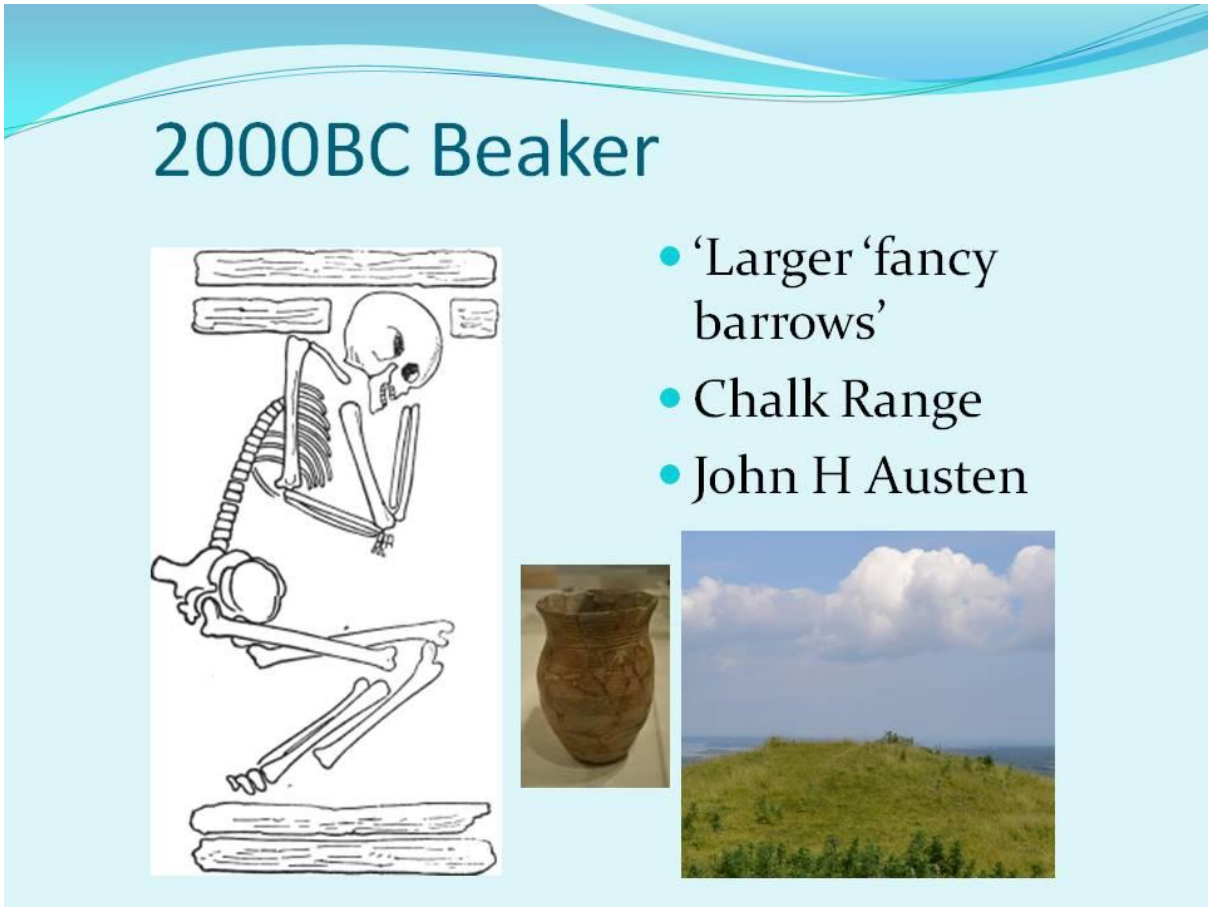
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The Hambledon Hill causewayed enclosure can be seen in the centre of the photograph with the later Iron Age hillfort above it. On the ground, the feature appears as a low ridge feature up to about two metres high.

There are hints of similar banks and ditches at places around the hill top of Compact Farm but more research is needed to confirm if this was definitely a Neolithic causewayed enclosure.

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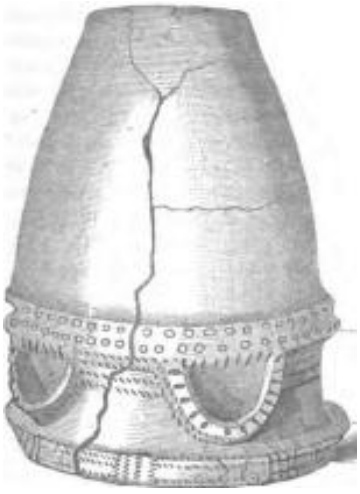
Looking at Austen's findings from the same period of time on the chalk range at Knowle Hill, we may predict that the Beaker burial he illustrated was a male. Although exceptions exist, in English Beaker burials women tend to be placed on their right sides and men on their left (Thomas 2005).

In early Bronze Age Wessex, there seemed to be two competing groups of people. The Beaker people tended to build bowl/disk barrows and bury their dead in crouched position, often within cists. The second group of people cremated their dead and buried them with cremation urns within bell barrows (Martin 2011).

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Within sight of Compact Farm is the chalk ridge with both types barrows containing Beaker remains and cremated remains suggesting this could have been a zone of interaction between two sets of people. The date these barrows were built may have been around 1900BC – the same time that the causewayed enclosure ditch was filled in at Compact Farm.



Primary series collared urn (Longworth 1984 P185 and plate 81)

The collared urn at Afflington barrow represents a cremation at the same time as this so possibly the area around Worth was territory of the cremation people.

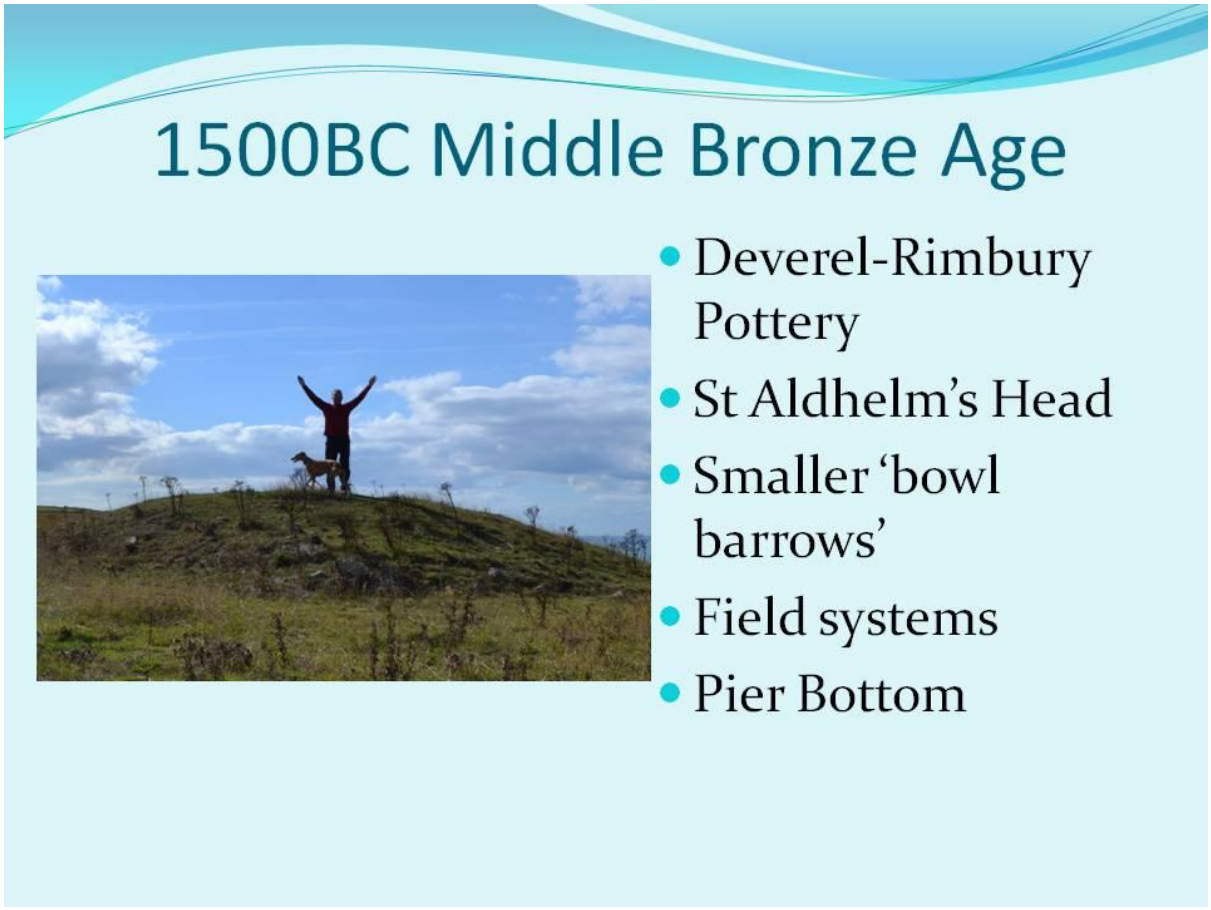
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Looking in more detail at our site at Compact Farm, we have a second layer of archaeology where we found an unusual 'alignment' feature. It lay beneath the layer of material dated as late Bronze age and may well relate to the infilling of the ditch and its early Bronze Age date.

This alignment appears to be some sort of pathway with a double row of vertical stones on either side of the path. But what might this special path have been leading to? This is a mystery feature on the Compact Farm site and is worthy of some follow up research.

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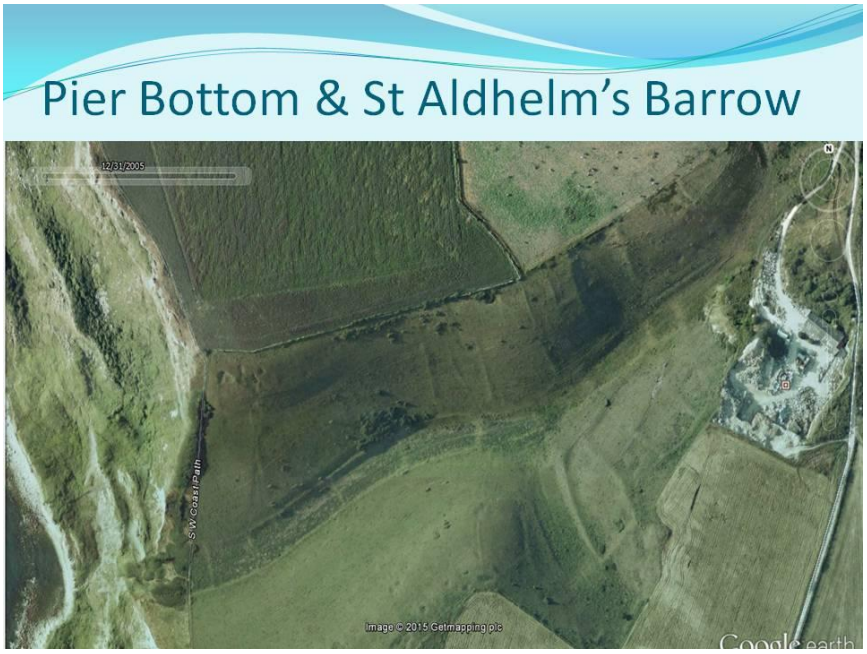


Also in sight of the Compact Farm site, to the South West, is Austen's smaller round barrow of St Aldhelms Head that sits above the valley of Pier Bottom.

John Austen found a cremation urn in this barrow. Elsewhere in Dorset similar barrows have been examined more recently. They often contain 'Deverel-Rimbury pottery that dates from the Middle Bronze Age. At this 'third layer' of the Compact Farm excavation, we found one pit that contained Middle Bronze Age Pottery, so people were living in the area, if not on the Compact Farm site itself.

Pier Bottom contains a complex of prehistoric fields. Dating prehistoric fields is very difficult as farming practices in different periods produce similar looking features. However, the relationship between the St Aldhelm's barrow, and the prehistoric fields and trackways in Pier Bottom, suggest that they may have been built at a similar time - in the Middle Bronze Age at around 1500BC to 1100BC.

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This aerial photograph shows the possible Middle Bronze Age fields in Pier Bottom.



This photograph shows field boundaries and a trackway between them leading from the sea at Pier Bottom up the valley to the barrow at the top of the hill. It almost appears like a processional way.

However, it is possible that the fields were created at a later period during the Iron Age and respect the existing barrow feature.

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Back at Compact Farm the fourth layer contained very significant remains from the Bronze Age-Iron Age transition - around 700BC and it is possible that the fields in Pier Bottom were created at this time.

At Compact Farm, at the base of the fourth layer, is a cobbled surface with a midden deposit above it. The pottery is of the distinctive "All Cannings Cross" style that is extensively found throughout the Vale of Pewsey, also with associated midden deposits (Tubb 2011).

Finds at this level included loom weights indicating domestic activity, a glass finger ring, imported from the continent and an Amorican bronze axe head. These finds indicate a settled community with an extensive continental network. Analysis of All Cannings Cross style pottery (Turnbull 1984 p88) suggests that it is derived from pottery of the late Urnfield culture in the Marne Valley of France.

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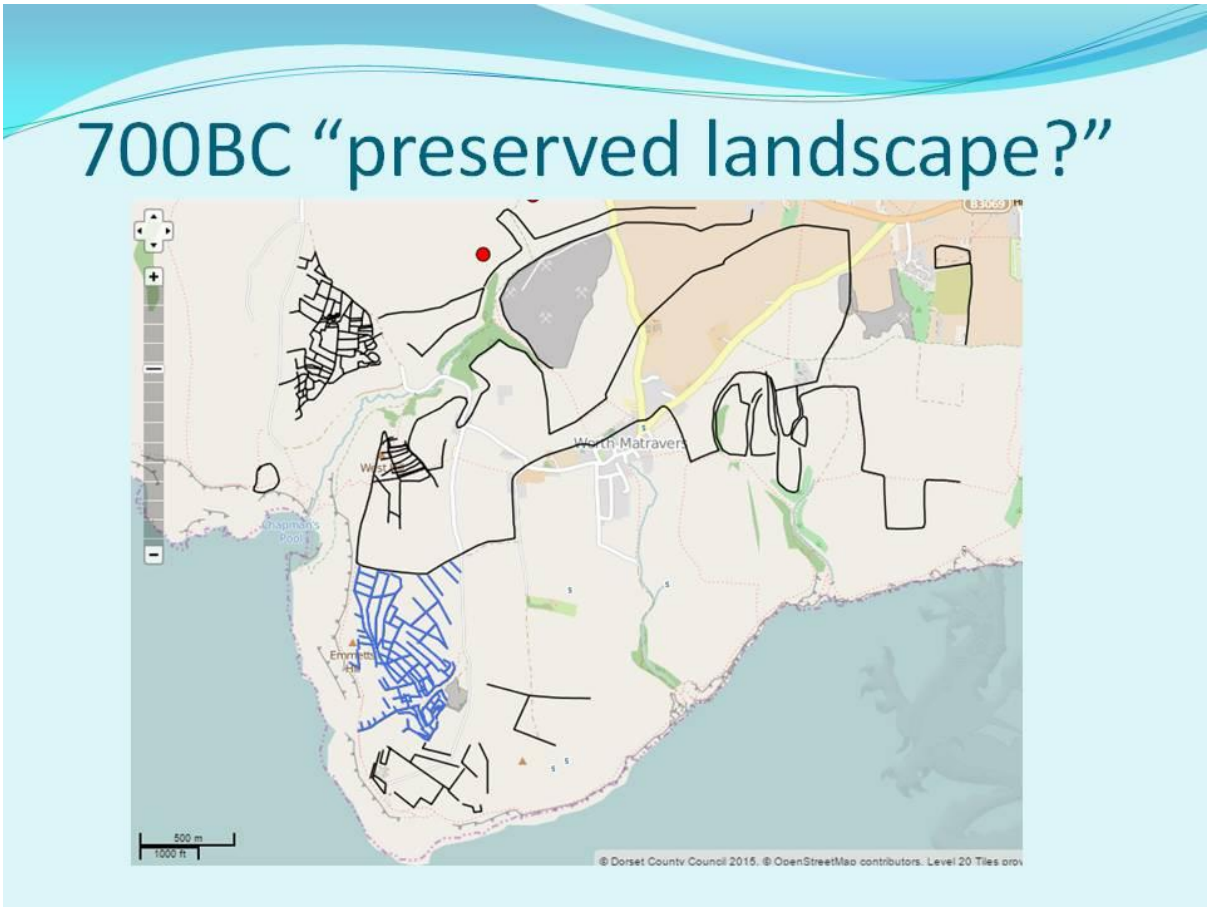


This Bronze Age - Iron Age transition layer of deposits is not unique to Compact Farm. The All Cannings Cross type of decorated ware is found along the coast of southern England north from Bridport into the vale of Pewsey and in other parts of the UK (see appendix). Local to Worth Matravers we may have a fossilised landscape, from this period still visible to us.

Visible throughout this area are a series of lynchet like banks that divide up territorial areas or farmsteads. They remain fairly undisturbed at Smedmore and Kingston Hill where there are associated settlement features.

It is possible to map these features in the area around Worth Matravers and it is likely that there were lynchets and fields in the Windspit Valley from the transition period and these were reworked and extended during the medieval period.

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By mapping these features, we can identify hill top enclosures at Worth Matravers, Kingston Hill and Eastington.

At Kingston Hill there are two small round house settlements or farmsteads. It is on a strategic ridge above Chapman’s Pool and there are small scale defensive ramparts around the edge of the hill where it overlooks the valleys leading inland from Chapman’s Pool. There was probably a similar settlement at Eastington, now the site of Eastington House. Here too there are a set of defensive ramparts around the tops of Seacombe and Eastington valleys.

We believe the site at Compact Farm may have been a gathering place for the people who lived at Kingston Hill and Eastington. The numerous animal remains in the midden deposit suggest that they may have used it for feasting.

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There are many other known transition sites on the limestone ridge including those at Blacklands and the axe hoard at Putlake Farm - the largest bronze age axe hoard ever found in the UK. The collection of transition sites in Purbeck are nationally important.

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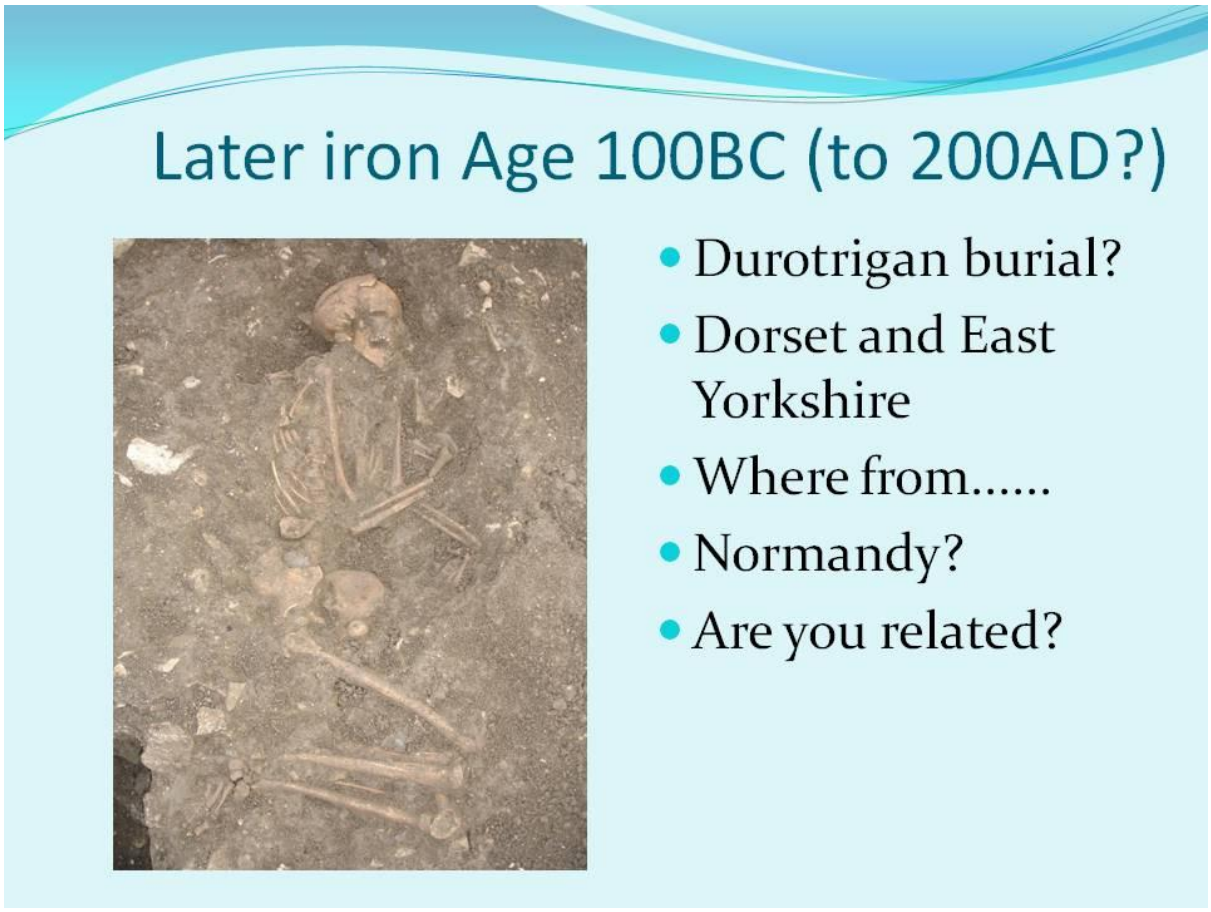
The fifth layer at Compact Farm dates from the later Iron Age after about 300BC. We found a series of large storage pits very similar to those recently found by Bournemouth University at Winterborne Kingston. The pit shown above and neighbouring pits look almost identical to some central storage pits at Winterborne Kingston. Around the pits at Winterborne Kingston were a large number of round houses each containing its own pit just off the centre of the house. These are thought to be grain storage pits.

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This picture is from the University of Southampton’s dig at Compact Farm in 1993. It shows the paved entrance to a round house. The paved entrance is unusual and exceptionally well preserved.

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The sixth archaeological layer at Compact Farm contains what are thought to be burials of the Durotrigan Iron Age tribe. We expected the radio-carbon dates to be around about 50BC to 100AD. But dates were actually around 600AD. This suggests that the people who lived at Compact Farm during the Romano-British and early post Romano British period were the same people with the same burial traditions as the Iron Age Durotrigan tribe. They may have originally lived in round houses but built rectangular stone barns during the Roman period.

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This picture shows the entrance way to a rectangular Romano-British barn at Compact Farm. The grooves in the stones were probably to house some sort of locking mechanism for the doors. The barn was probably used for grain storage and we also found evidence of shale working nearby but not inside the barn itself.

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This picture is from the University of Southampton dig and shows a second rectangular grain storage barn. At the near end, you can just see a bit of the hypocaust heating system used to dry out the fresh grain.

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At the same time at St Aldhelm's Head, the picture on the left shows a geophysics image of a Romano-British Farm. It is the light coloured field on the right of the aerial photograph, just above the field systems and adjacent to the Bronze Age barrow above Pier Bottom. This shows us that there was an extensive farming landscape around Worth Matravers in the Romano-British period.

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We thought that there was no other archaeology at the Compact Farm site. But once construction started on the community houses, we were surprised to find a seventh layer of archaeology. This is a dark ages or Saxon age cemetery. We excavated 26 skeletons to enable the building work to continue and we know that there are more burials to the East of the houses. Radio-carbon dates show that these people were buried around 650AD. One man's head was resting on a stone anchor suggesting that he may have been a fisherman or ferryman. These burials were East West orientated suggesting that they were Christian burials that took place before the non-Christian Saxons established full control.

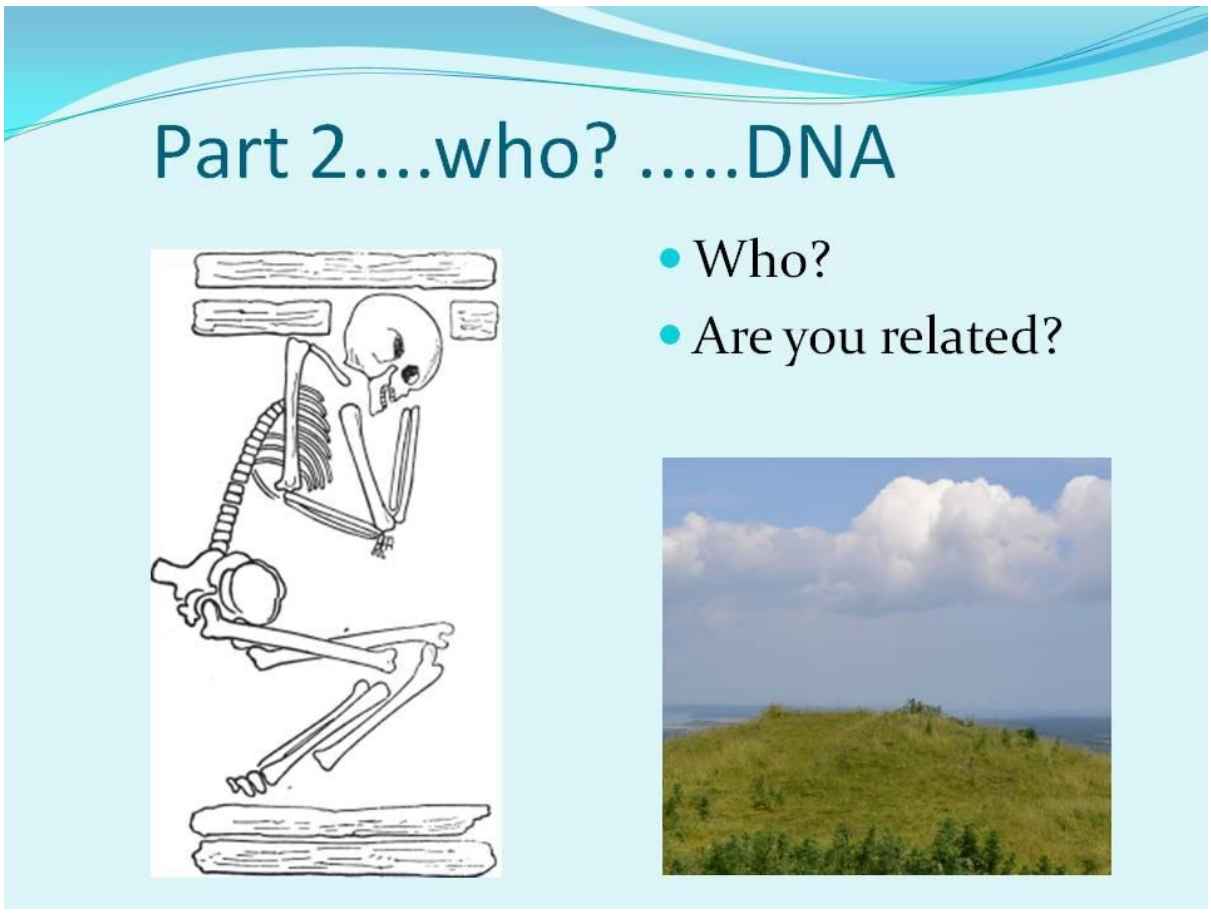
The picture on the right shows typical lynchets from the Medieval period in the Windspit Valley in Worth Matravers. The very prominent boundary to the right of the picture at right angles to the lynchets is Saxon as described in the Saxon charter for the area. Although the lynchets were fully developed in the Medieval period, some of them crossed the Saxon boundaries and their origins are probably in the Late Bronze Age – Early Iron Age transition period.

In regards to John Austen's first questions, we now have radio-carbon dates presented above, that tell us when the barrows and other landscape features were built.

In regards to John Austen's second question – who were these people and where did they come from - we have sent some of the bones to Huddersfield University where they have a brand new ancient DNA laboratory. We hope to be able to extract DNA from the bones that will help us answer his questions and I will explain how in part two of this presentation.

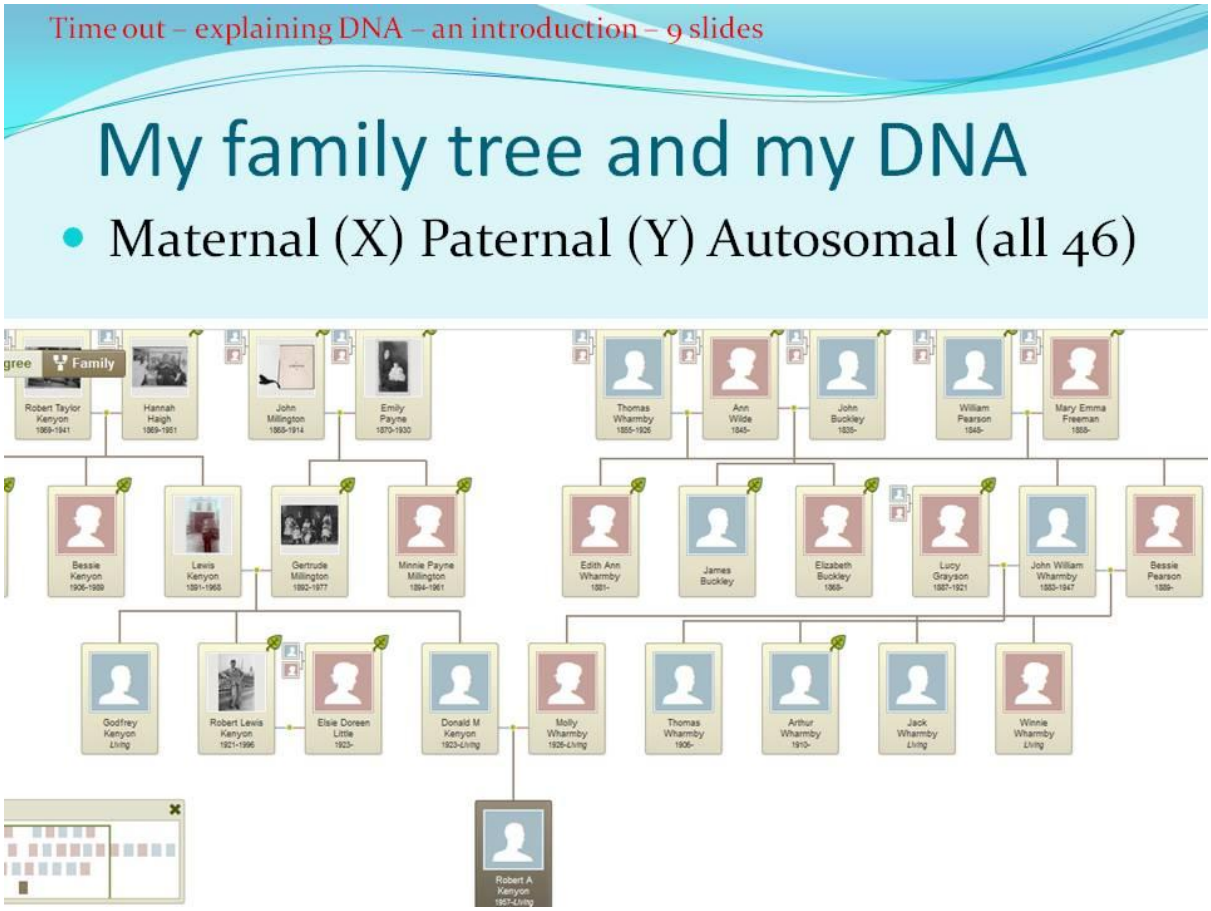
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The Future – ancient and modern DNA – some background information



Part two of this presentation is looking to the future and will explain the potential for modern and ancient DNA sampling to tell us whose ancestors created the archaeology that makes up our local landscape. At this stage, I am presenting my hypothesis. As more ancient and modern DNA becomes available, I will be able to test whether my hypothesis is sound or not. So this is my current best guess. The future data will prove or disprove my hypothesis and allow me to refine and develop it.

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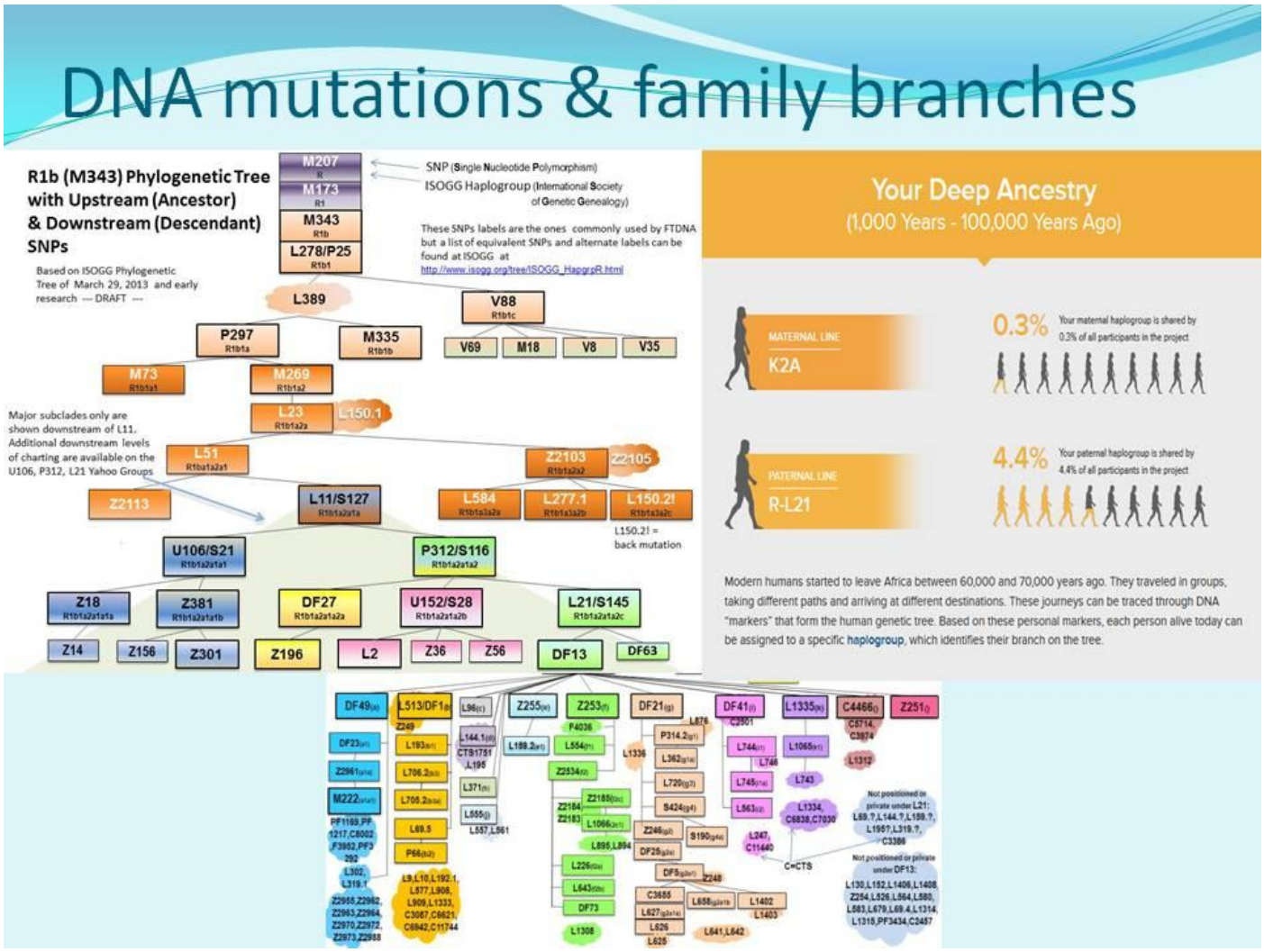


I'm going to start with showing you 9 slides to explain to explain the basic principles of DNA and archaeogenetics.

This slide shows my own family tree. My DNA is made up of 46 chromosomes which is a mixture from all my ancestors in my family tree. The study of this complete mix is called autosomal DNA. However, 2 of the 46 chromosomes are unique in that they are not mixed every generation but are passed in complete form from father to son (the Y chromosome MSY) and from mother to daughter and son (the X chromosome or mtDNA DNA).

All three types of DNA, (autosomal, MSY and mtDNA) can tell us about the history and movement of our ancestors.

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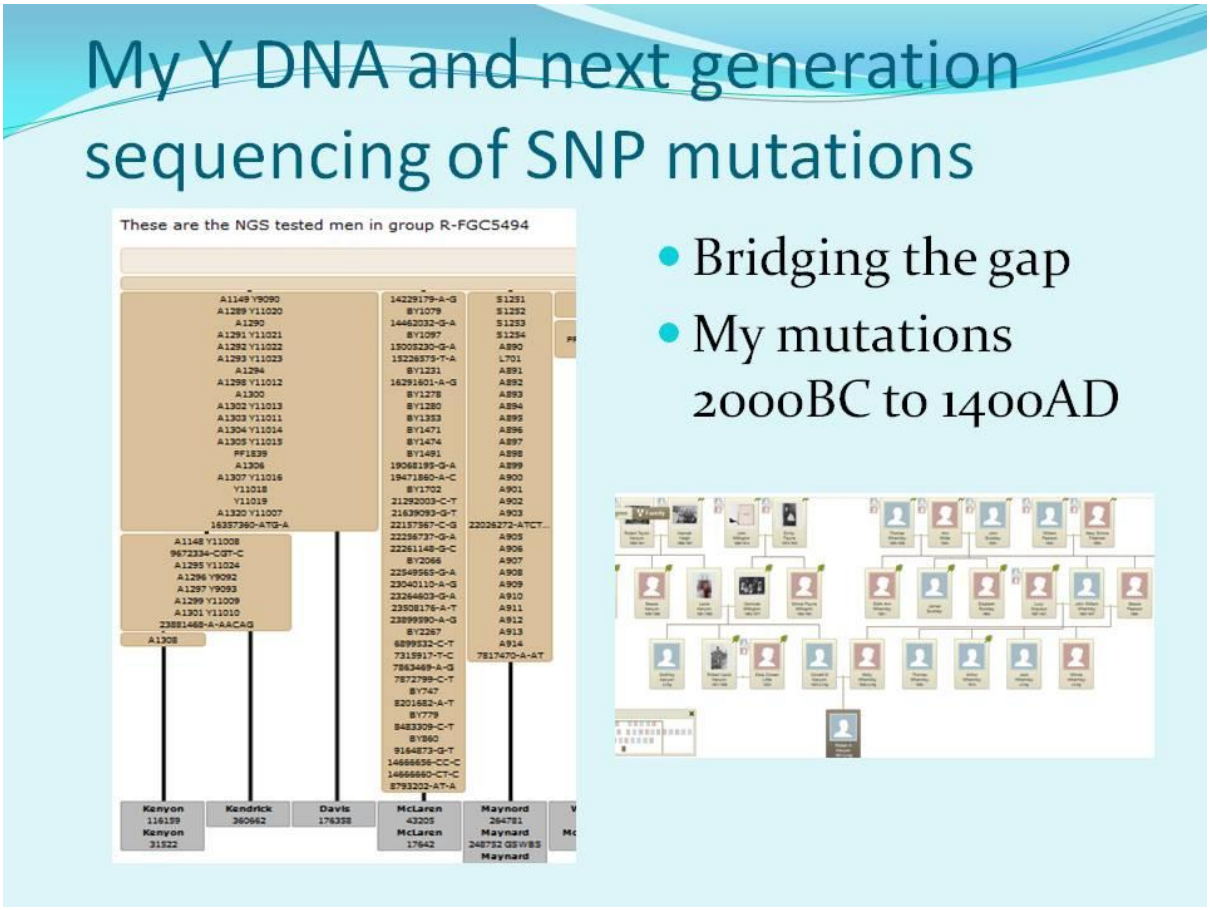
Because the X chromosome and Y chromosome are passed down the male and female lines, they can be used to identify great great great etc. grandmothers and grandfathers that are in common with other people. For example, my own great great great etc grandfather of about 5000 years ago, is the originator of a group of male descendants given the group name R1b-L21. On my mother's line, the equivalent ancestral group is called K2A.

Approximately every two to three generations, there is a mutation which means that the X or Y chromosomes change slightly when they are passed down through the generations. This means that we can build paternal and maternal family trees based on mutations. Because the male mutation family tree can be directly related to a male named family tree, I will concentrate on the X chromosome's mutational trees later in this presentation.

The diagram on the left shows a genetic descendants tree for my own male line R1b-L21. The top of the chart shows the major mutations from about 8000BC that led to the L21 family. Just before the L21 mutation occurred other 'cousin' family branches of U106, U152 and DF27 occurred and led to other large parallel family trees. The detail of those branches is not shown on this diagram but I will refer to those families later.

My own L21 mutation occurred around 3000 BP and the tree shows that there was a major expansion of the number of family lines around 2400BC. L21 family groups dominate the male lineages of Ireland, Wales and the west of England and Scotland. I will refer to the L21 family groups later in this presentation.

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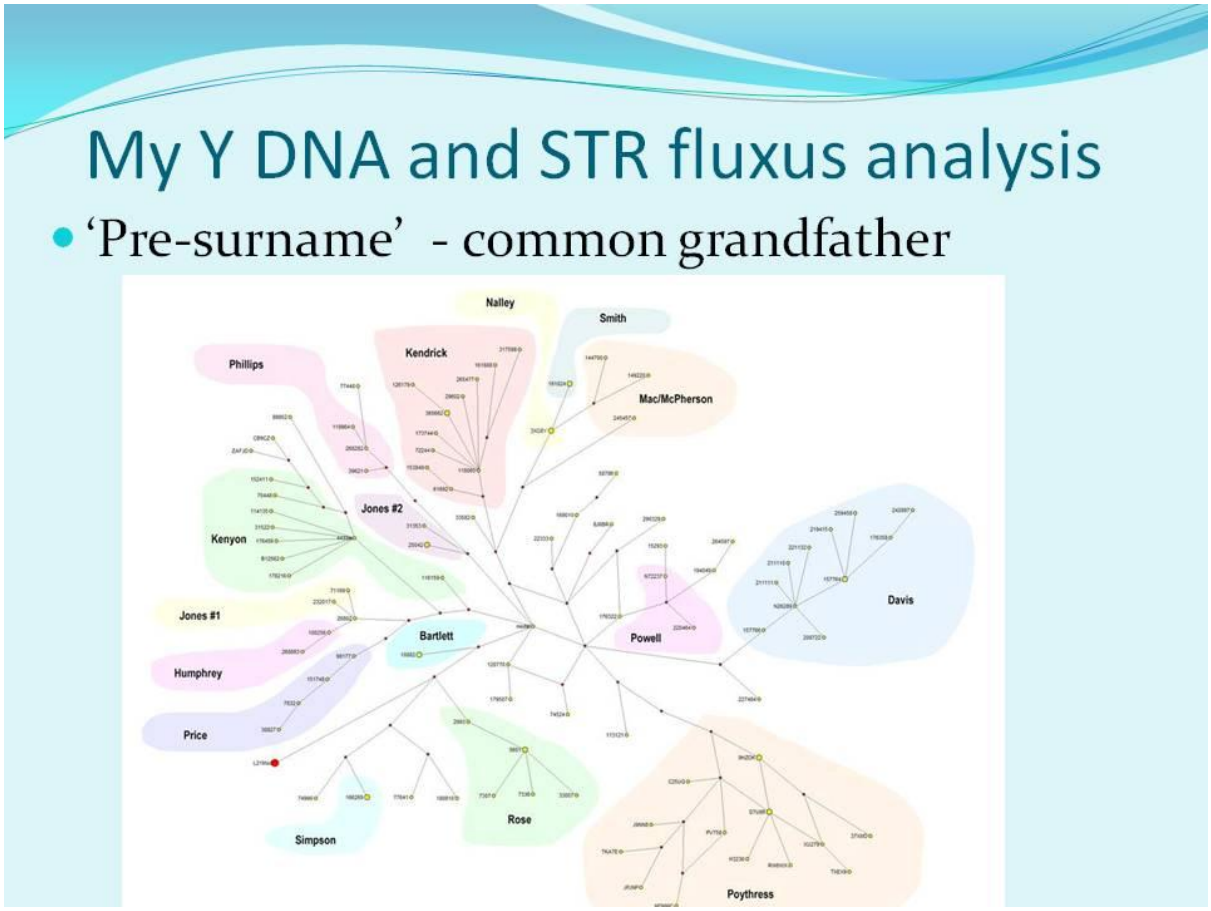


Since 2013, changes in techniques and technology have enabled much cheaper and more detailed analysis of DNA mutations and changes. This is called next generation sequencing and this is regularly providing masses of new DNA data from living people and from ancient remains.

It means that we can now bridge the gap between genetic DNA trees (working from thousands of years ago towards the present) and conventional family trees (using parish records to work back from the present day to hundreds of years ago.

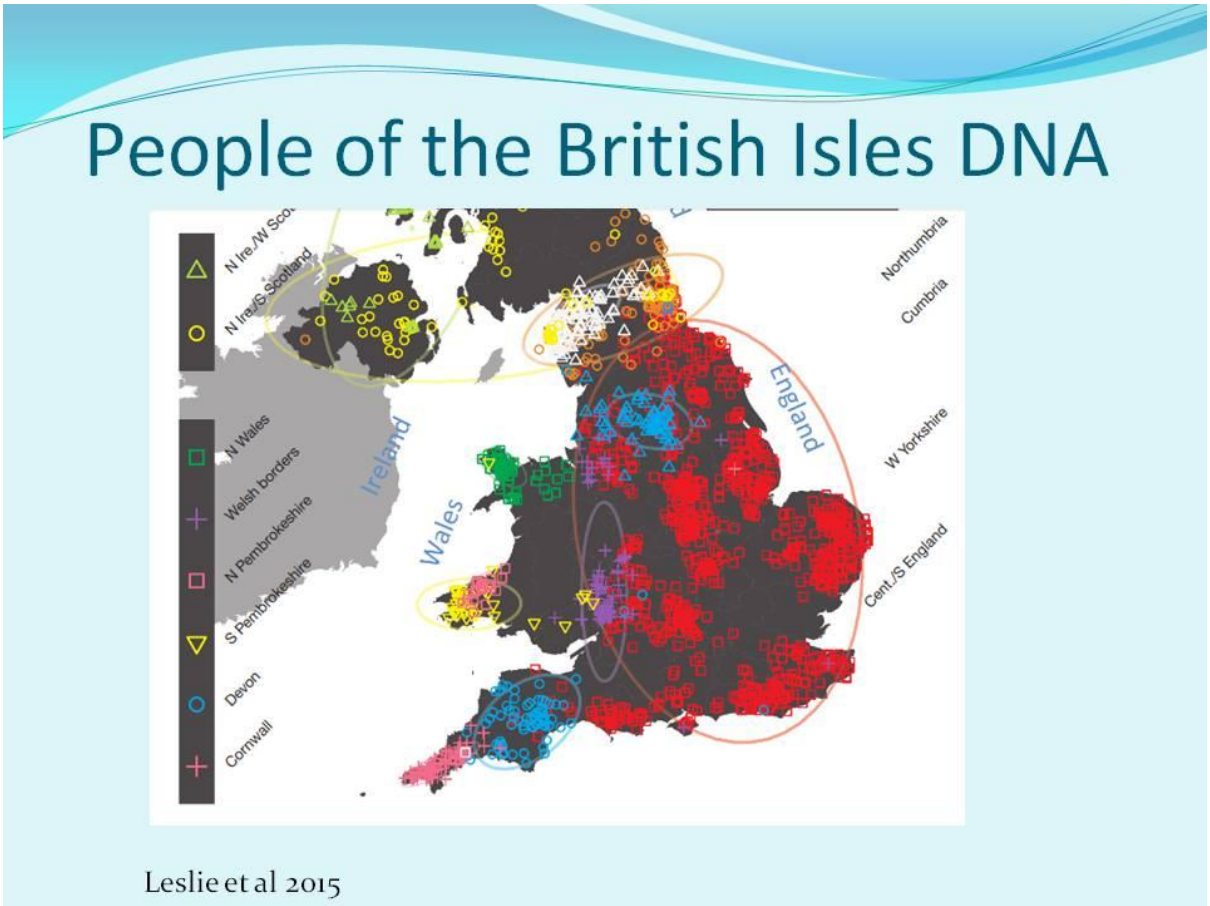
So, for example, I have my own next generation sequencing results available that show each mutation on my Y chromosome through to the present day. Although we cannot yet join our conventional family trees, I now know that I have a common grandfather with a number of American Kenyons around about 1450AD. In time, and with more documentary research and DNA tests, we may be able to establish exactly who that common grandfather was.

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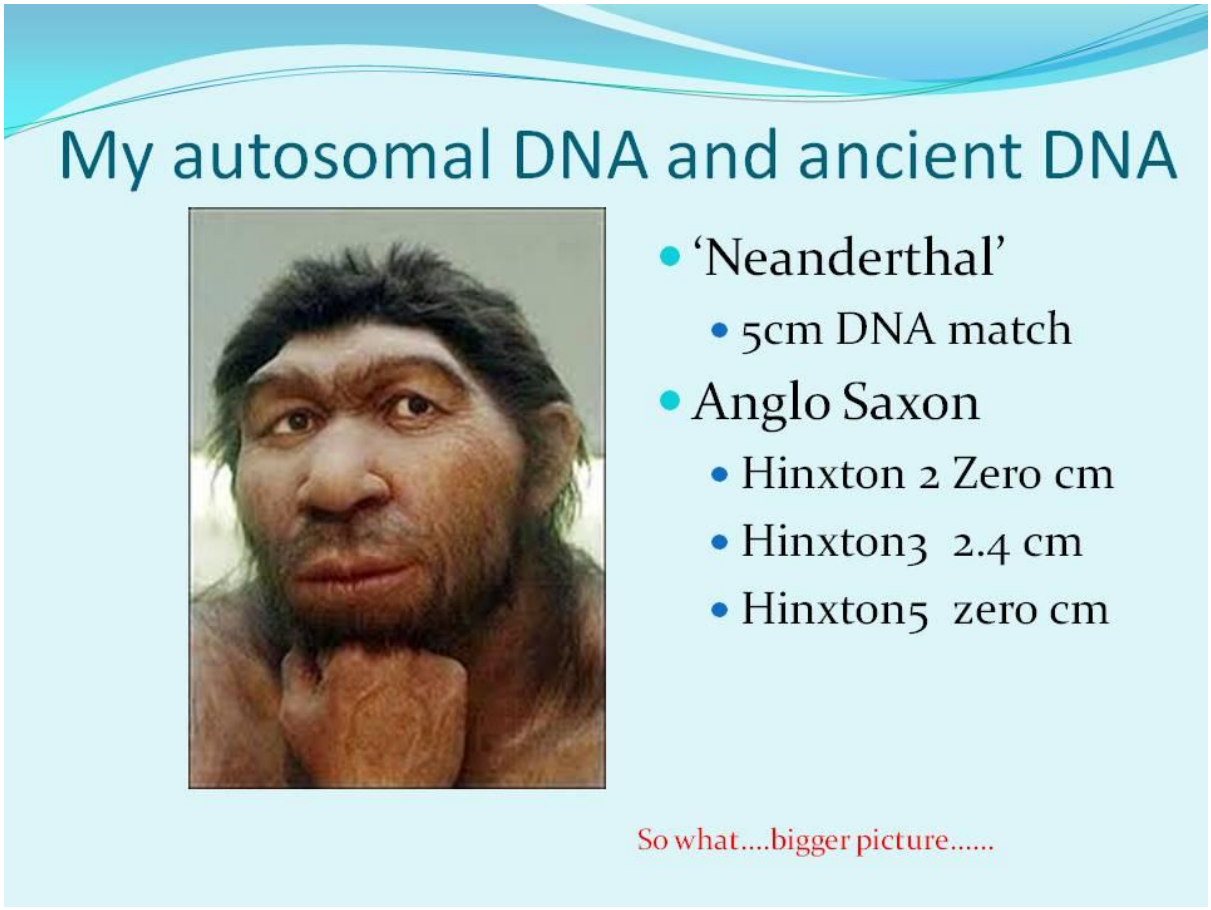
There are two types of DNA mutations which can be studied called STRs and SNPs. This diagram has been created from my own and other living people's STR mutations. It shows that other Kenyon men who have had their DNA analysed are closely related to me. It also shows that further back in time, before surnames existed, we had common male ancestors with current surnames of Kendrick and before that, for example, Powell, Davis and Polythress.

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There is research taking place looking at the spread of different DNA groups across Britain. This is at an early stage. However, the Kenyon, Kendrick, Davis etc. families all seem to be based in the area of purple dots on this map on the Welsh borders. Some have speculated that these people may have descended from ancient Iron Age Britons.

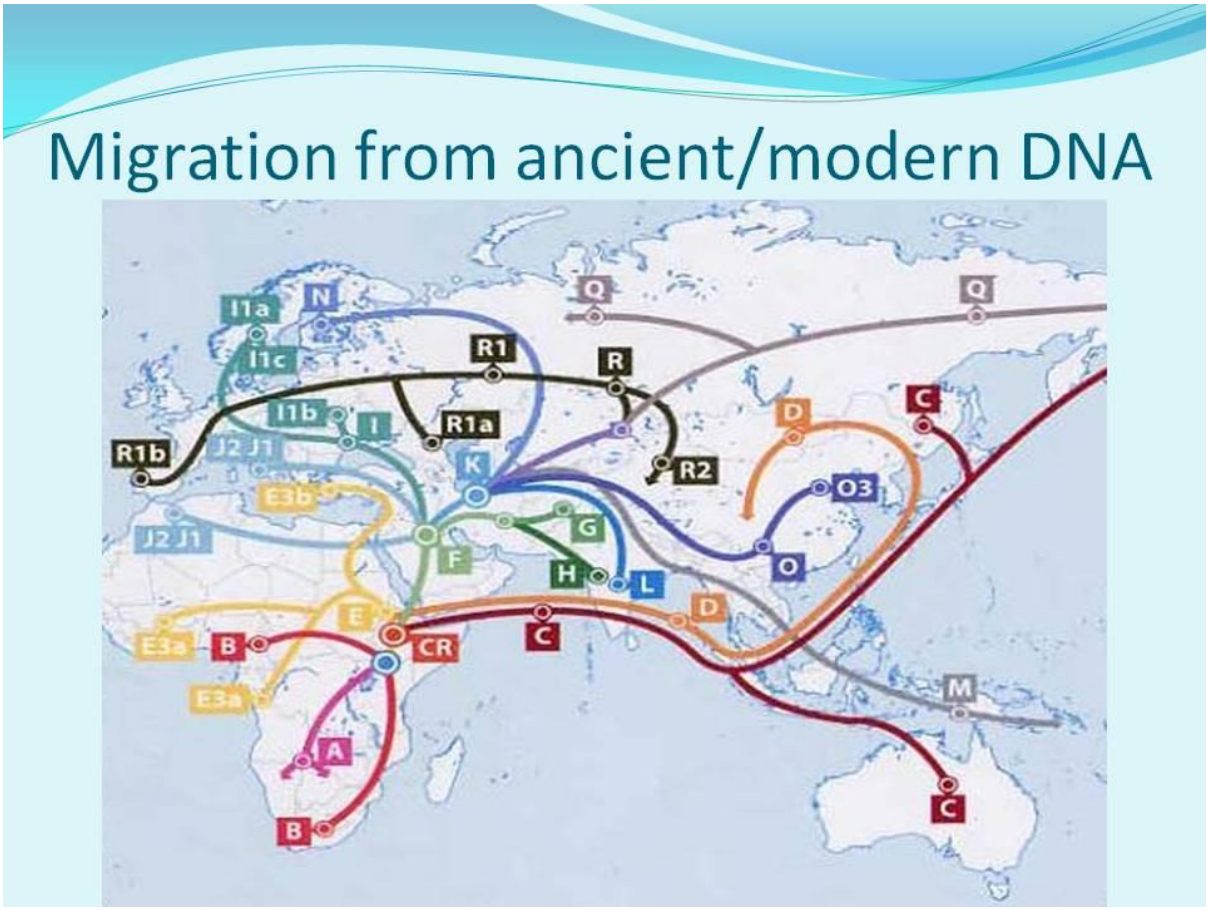
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There are all sorts of interesting ways that we can study autosomal DNA – that is the mix of DNA across all your 46 chromosomes. You can compare your mix of DNA with that of ancient populations from different parts of the world. You can also compare your own DNA with that of ancient individuals where ancient DNA has been collected from skeletons. So for example, I can compare my own autosomal DNA with that of an ancient Neanderthal and also with three Anglo Saxon skeletons from Hinxton in Cambridgeshire. Surprisingly, my results show I have more DNA in common with the ancient Neanderthal than I do with any of the three Anglo Saxons. Now of course this may not be a huge surprise to some of you who know me.! However this does tell us some important facts. For example, it shows that ancient humans interbred with Neanderthals tens of thousands of years ago. It also tells us that we need to take great care in interpreting DNA results because I am only comparing a small sample of my own DNA with a small sample of the Neanderthal and Anglo Saxon people's DNA and in reality, I am much more closely related to the Anglo Saxons than to the Neanderthal.

So with that note of caution, much of the DNA analysis has to be carried out using advanced and complex statistics. Then the results can begin to identify interesting patterns such as the movement of groups of people across the globe over time.

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This slide produced by the National Genographic Project shows a general schematic of the movement of different lines of male DNA out of Africa.
https://genographic.nationalgeographic.com/about/

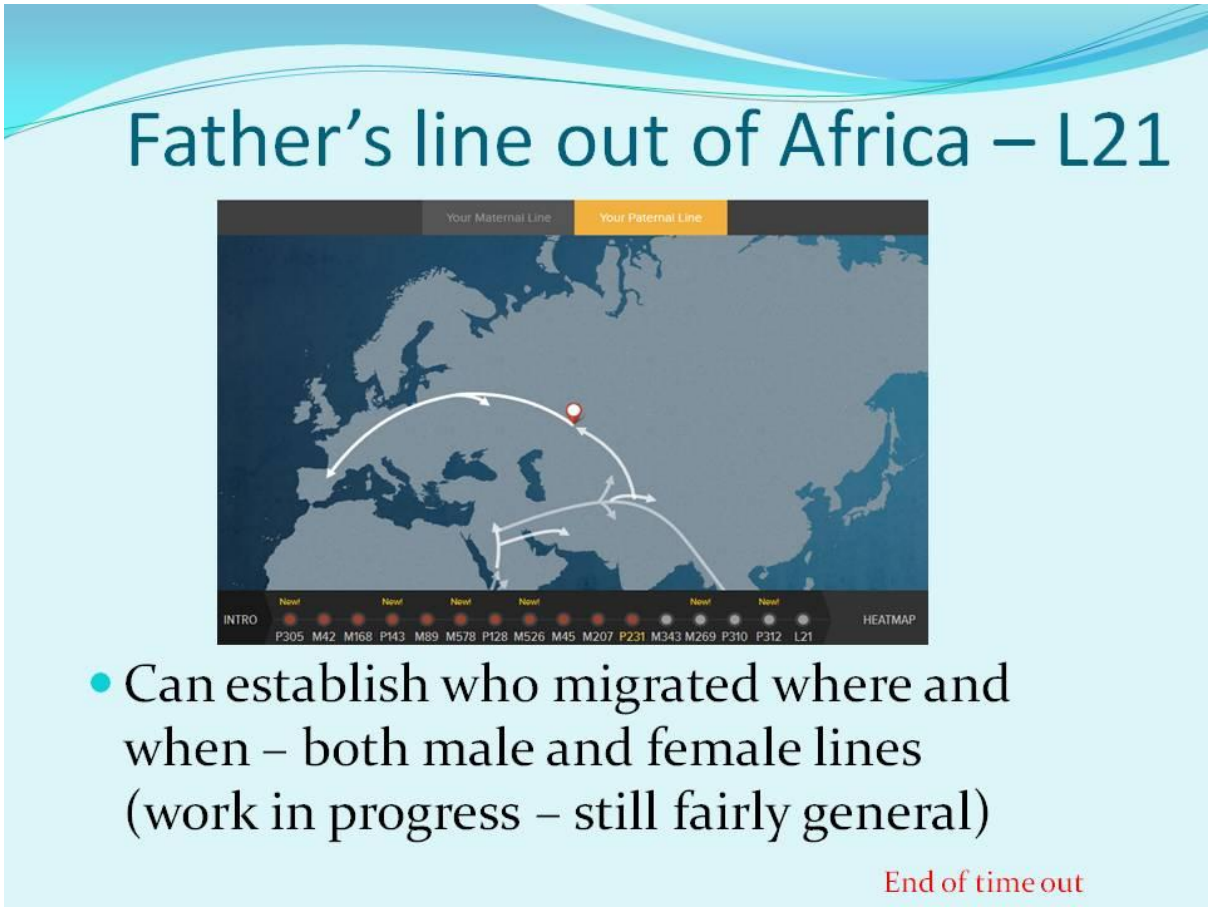
My own male line DNA is the line R that evolves into R1b and the journey out of Africa is thought to have been via Siberia and the Caucuses.

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Similarly, my mother's DNA type, K2a, is thought to have migrated through the Caucuses and into central and western Europe.

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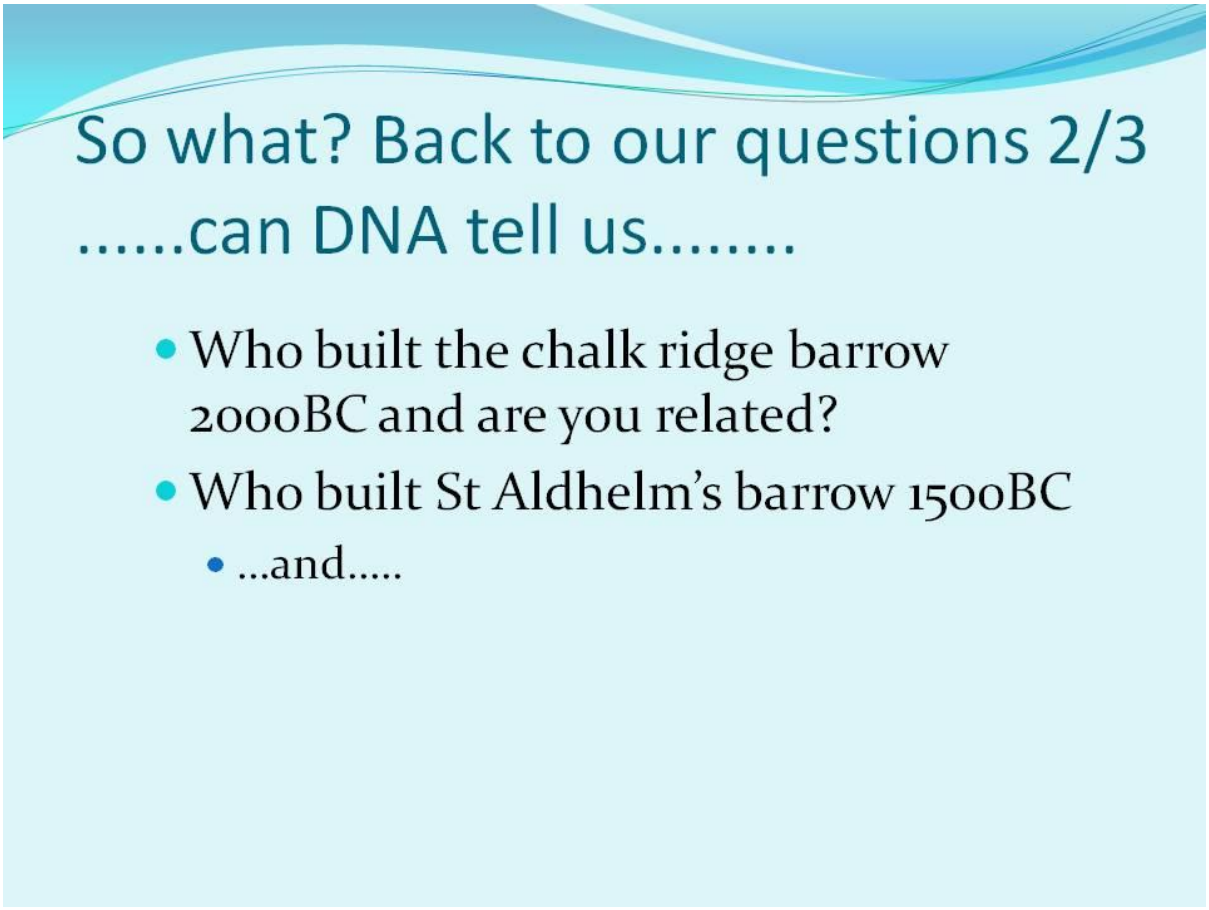


So, in summary, we can use data from ancient and modern DNA to establish roots of migration of people. Because there are still very few ancient DNA results available, it is not possible to plot all detailed migrations yet. However, the rate of progress is so fast that within the next ten years our knowledge of migrations and their impacts on archaeology will transform our understanding.

These nine slides have been a simple introduction to DNA and I will now build on that background to look ahead and present my hypothesis for who built the barrows, round houses and lynchets.

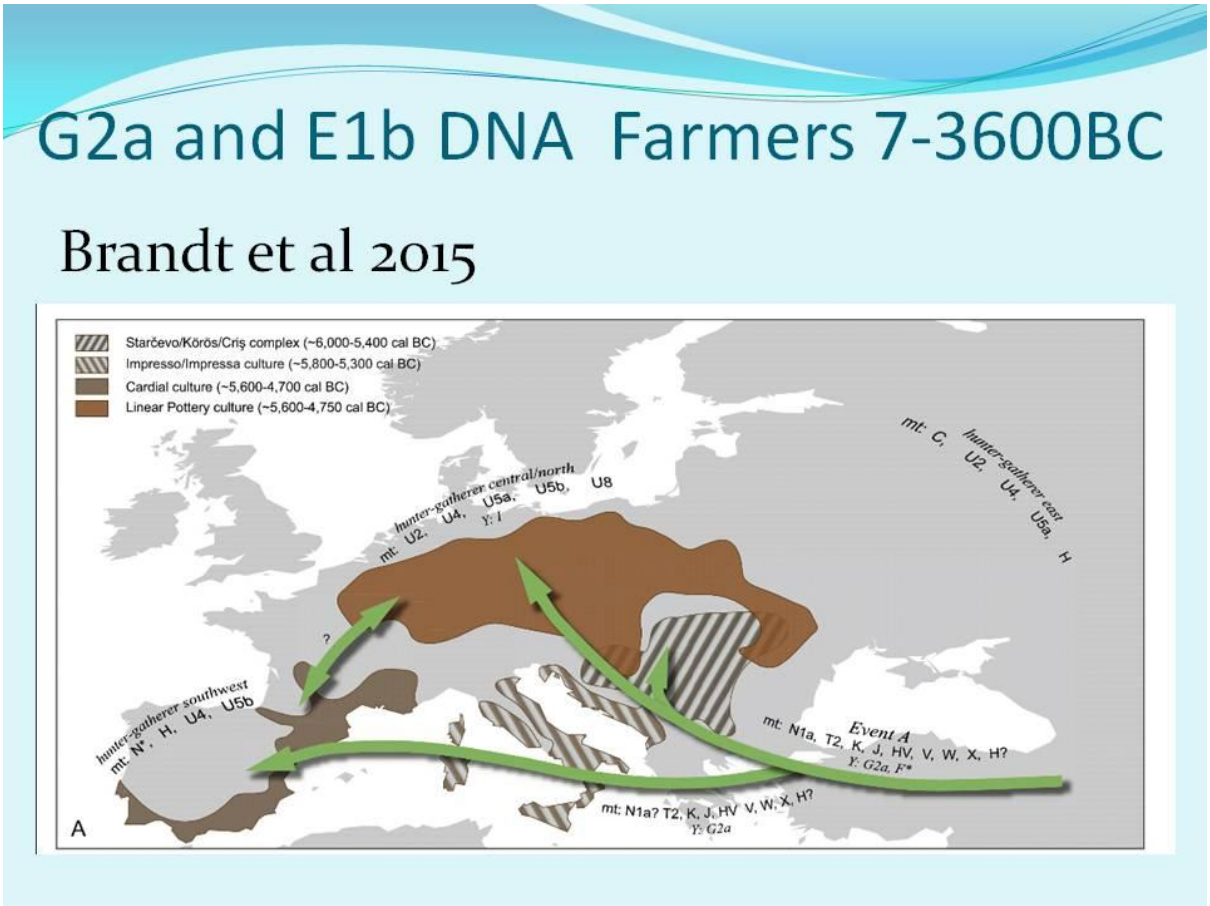
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The Future – my hypothesis for who built the barrows, round houses and lynchets



So can DNA help us answer John Austen's difficult question – who were the people who built the barrows? And perhaps also, who the people were who built the other archaeological features in our landscape such as the causewayed enclosures, the lynchets and the roundhouses.

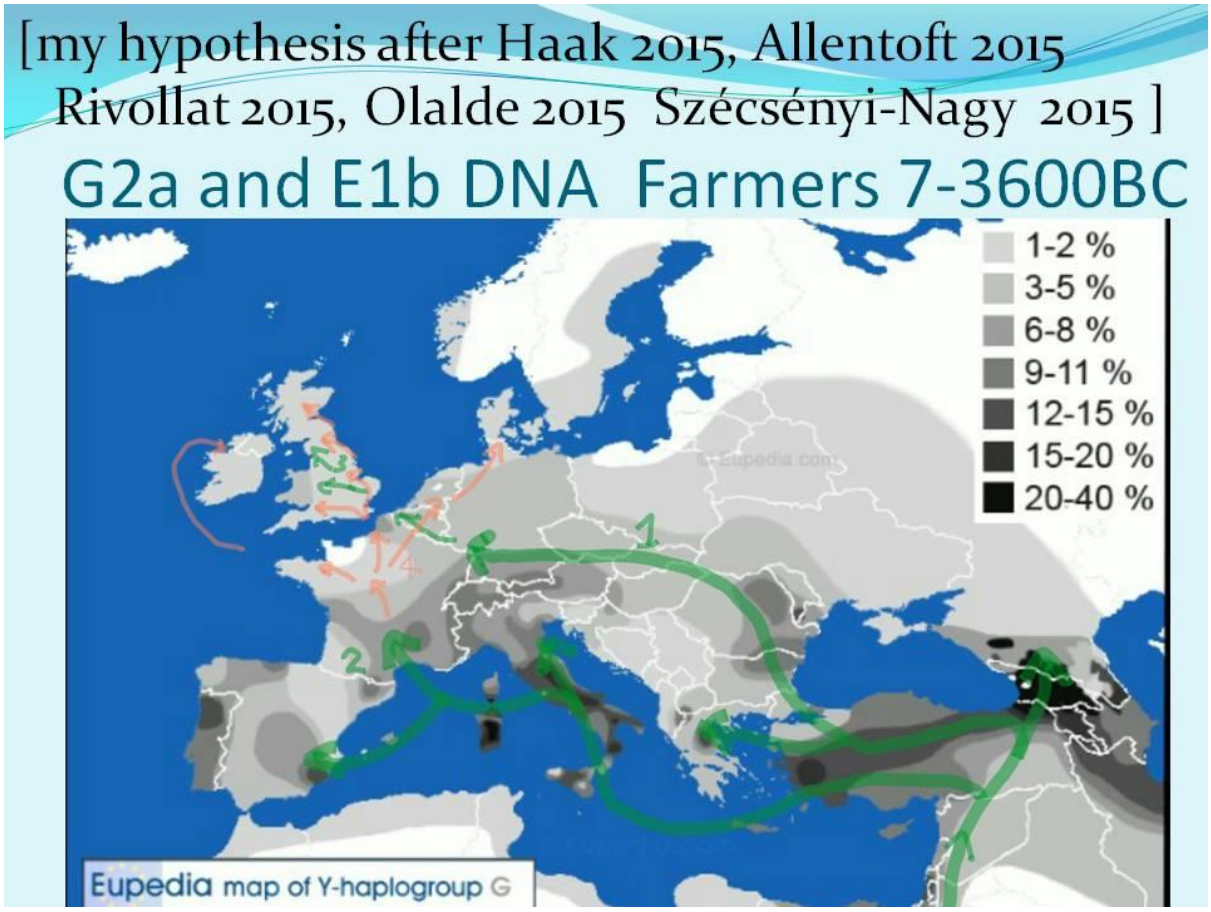
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In the last two years there have been some very important research papers presented. Brandt in 2015 used all three types of DNA analysis (mtDNA, MSY, autosomal) to identify the origins and routes of movement of farmers from the fertile crescent into Europe. Because we will be talking about the possible links to current families, I will concentrate on the male line (MSY) DNA because both MSY DNA and surnames are passed on together down the generations. This migration of farmers reached Europe around 6000BC and arrived in the Isles from 4000BC. These farmers were dominated by the male line of DNA called G2a with a lesser number of type E1b.

So could any people with the DNA of these early farmers still be living in the area today?

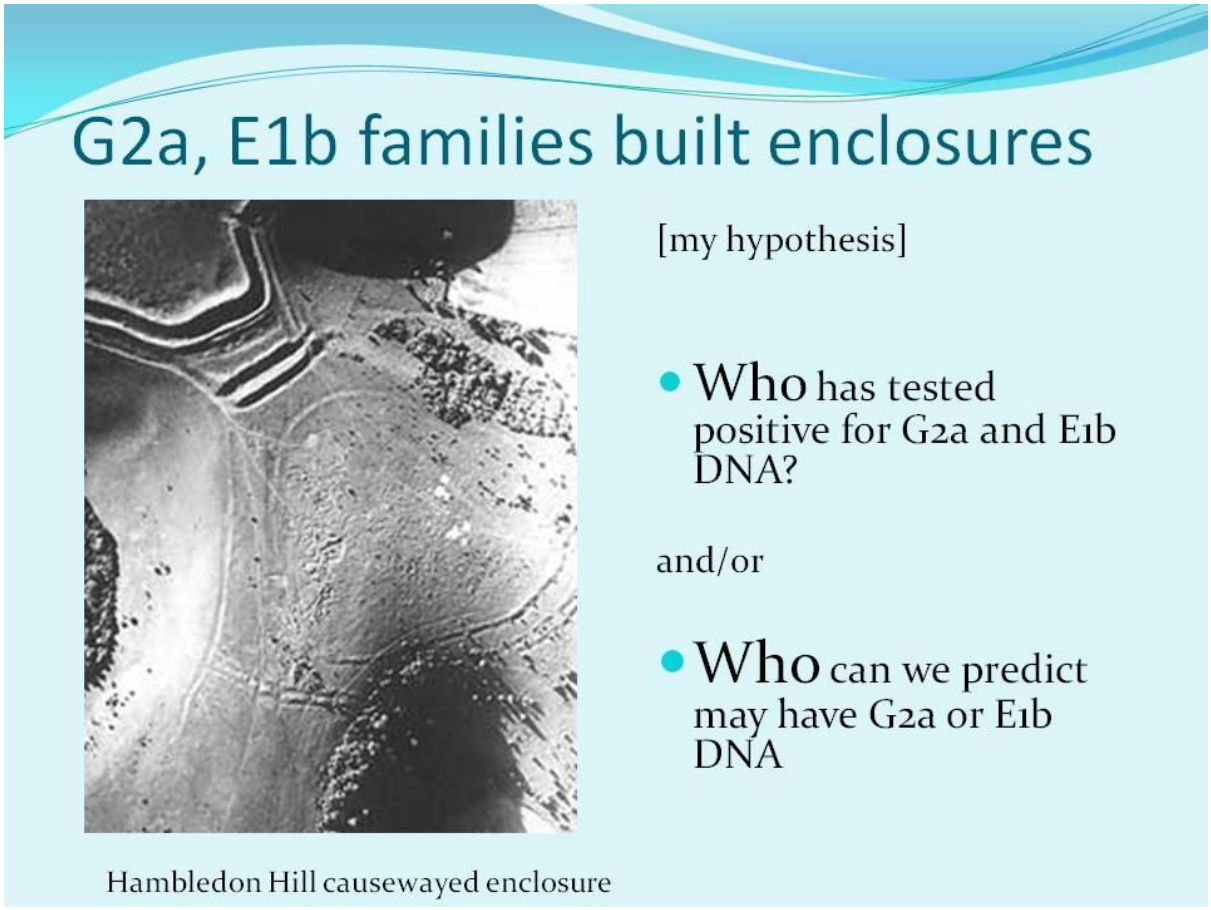
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The base map of this slide shows the modern distribution of G2a DNA. (used by permission of Maciamo Hay, Eupedia http://www.eupedia.com/europe/Haplogroup_G2a_Y-DNA.shtml). I have overlain the possible migration routes into the Isles. It is interesting to note the very small percentage of people with G2a DNA in the Isles today. The archaeology tells us these people were made a major impact on the Isles but they are now a small minority – largely replaced, as we shall see later, by later waves of migrants to the Isles.

I have been trying to look at the archaeology of Purbeck and Southern England to refine these models of migration into Western Europe. I believe that farmers arrived in three waves. The first wave was a few G2a farmers from the (LBK culture) in central and western Europe quickly followed by the second wave – G2a and E1b farmers (from the Cardinal and impressed ware culture) travelling by the Mediterranean route who arrived and built causewayed enclosures. At a similar time, the third wave of I DNA dominated people arrived (via the Passy culture in France), and migrated along the west coast of the Isles and they built our megalithic monuments such as passage graves. However, the I DNA dominated wave possibly did not reach Purbeck so I will concentrate on the people who built the causewayed enclosure at Worth Matravers.

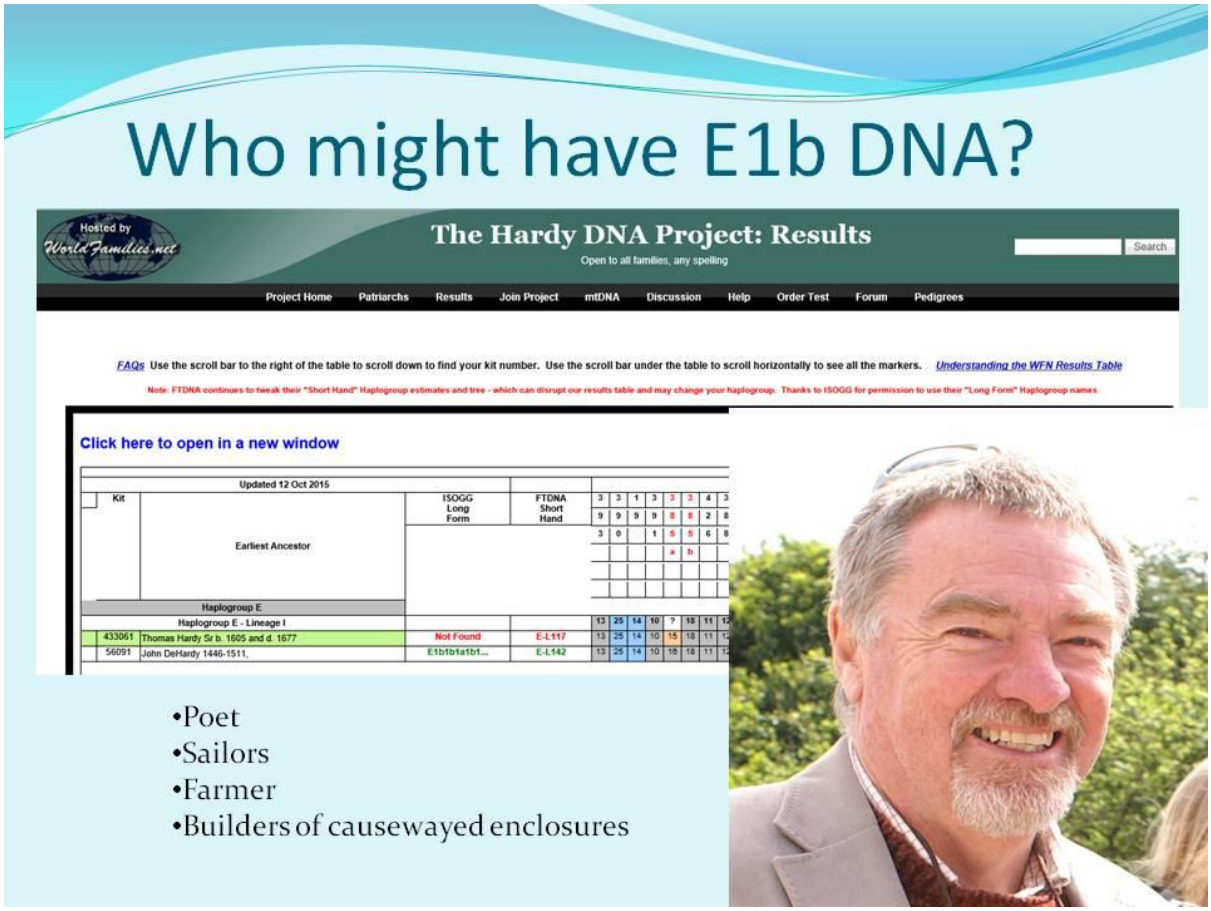
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So, do we know any local people who have tested positive for G2a or E1b DNA? Well as far as I know I am the only local person who has tested their own DNA.

But, we do know one person with G2a DNA with family roots not too far away. Bridget and I bought her father a genetic test for Christmas 2014. Through conventional family history study I have traced the Downton family history roots back to Osmington, Dorset.

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Although we are lacking DNA tests for Purbeck folk, we may be able to predict the DNA of some people. Our own Captain Neil Hardy MBE can trace his ancestry back to Clement Le Hardy (1494) of Jersey.

There are a large number of surname projects worldwide where members have tested their own DNA in the search for their ancestors and extended family. There is a Hardy DNA project that includes an individual who also traces his ancestry back to the Hardys of Jersey. This Hardy has E1b DNA. If both family trees are correct they have a common grandfather Clement Le Hardy and will share the same male line E1b DNA.

So from their family history we know that the family have been mariners, authors and poets (Thomas Hardy). Their DNA suggests that they may have originally arrived in the region as farmers and their ancestors could have been involved in building causewayed enclosures in Western Europe and the Isles – and possibly also in Worth Matravers.

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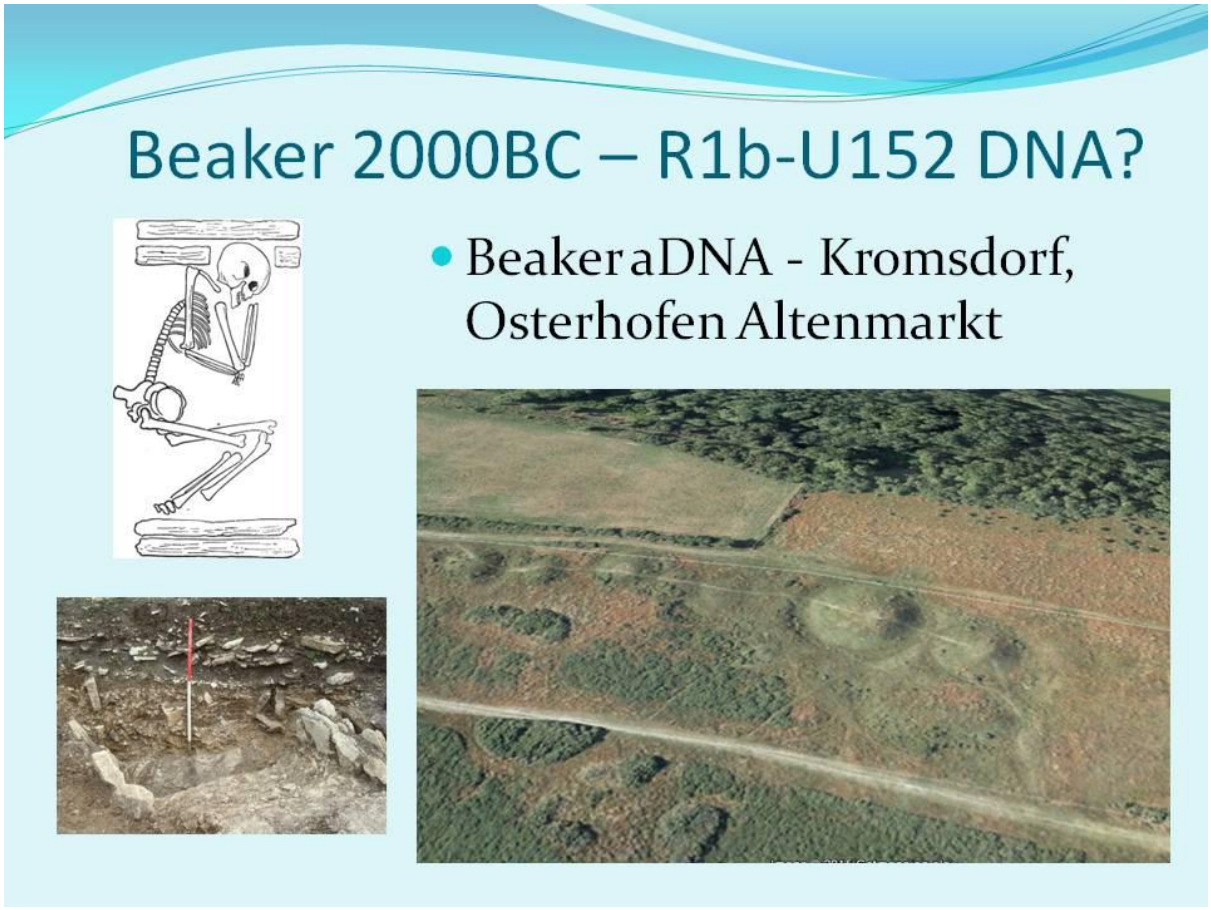
So who is buried in the barrows that John Austen excavated and described to us 160 years ago?

In my hypothesis, people with R1b type DNA built the barrows. The migratory history of the R1b family is long and complex. We have very few ancient DNA samples to tell us the detailed story.

However, we do know that an early wave of R1b-V88 (V88 is a family branch of the R1b family tree) DNA men reached the Mediterranean and migrated back into north Africa around 6000BC. I speculate that these people may have had a role in building dolmen burial chambers in these areas but there is little evidence to date these type of archaeology features.

People with R1b-P312 family branch DNA were involved in a later migration of the Beaker people and were established in Ireland by 2000BC (Cassidy et al 2015).

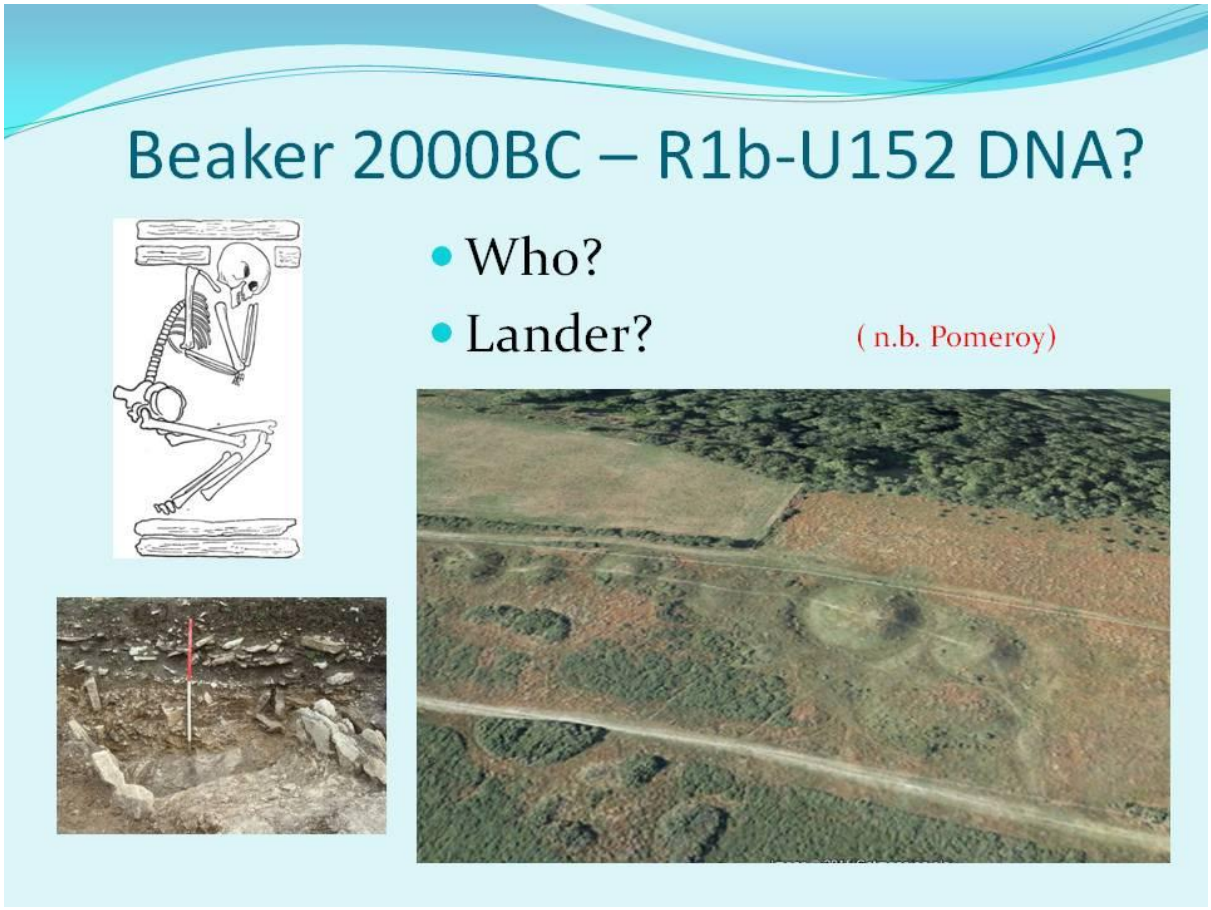
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In my hypothesis, sub- family branches of R1b-P312 built the barrows. We are still waiting for ancient DNA analysis from the remains of the famous Amesbury Archer. Isotope analysis of his teeth suggest he migrated to Britain from possibly the Alps.

I am predicting that his DNA is of the R1b family U152 that is dominant in parts of the Alps today. And similarly I predict that the DNA of John Austen's Beaker burials on the Purbeck chalk ridge may also have U152 DNA.

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Can we predict any local families who may have R1b-U152 DNA? In some family DNA projects – particularly where the name is unusual, such as Pomeroy – all the people who have tested are of the same DNA type. However, common surnames, such as Smith, that may relate to anybody carrying out a particular trade, have a mix of all types of male line DNA.

There is a Lander family DNA project. Results show that many are connected with the same DNA type of R1b-U152. The only way we will know if our local Landers have U152 type DNA is to test some of the living men in our local area.

However, it is just possible that they may have the same family DNA as John Austen's Beaker men buried on the chalk ridge.

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So what of the people who were cremated and were found with Collared Urns and Deverel Rimbury cremation urns under the barrows at Afflington and St Aldhelm's Head?

I predict that the men from these families will have the R1b-L21 family branch of DNA. The only ancient DNA from the Bronze Age of the Isles, is the DNA of three individuals from Rathlin Island off the north coast of Ireland. One man from around 2000BC had R1b-L21 sub branch DF21 type DNA and was associated with Food Vessel burials.

In my hypothesis, different sub-branches of the R1b-L21 (and possibly some R1b-DF27 'cousins') are associated with the collared urn and Deverel-Rimbury culture barrow burials at Afflington and St Aldhelms.

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So, by looking at family DNA project results, who may have L21 sub family DNA in Purbeck? Well, L21 type DNA is very common in men in the Isles – particularly to the west.

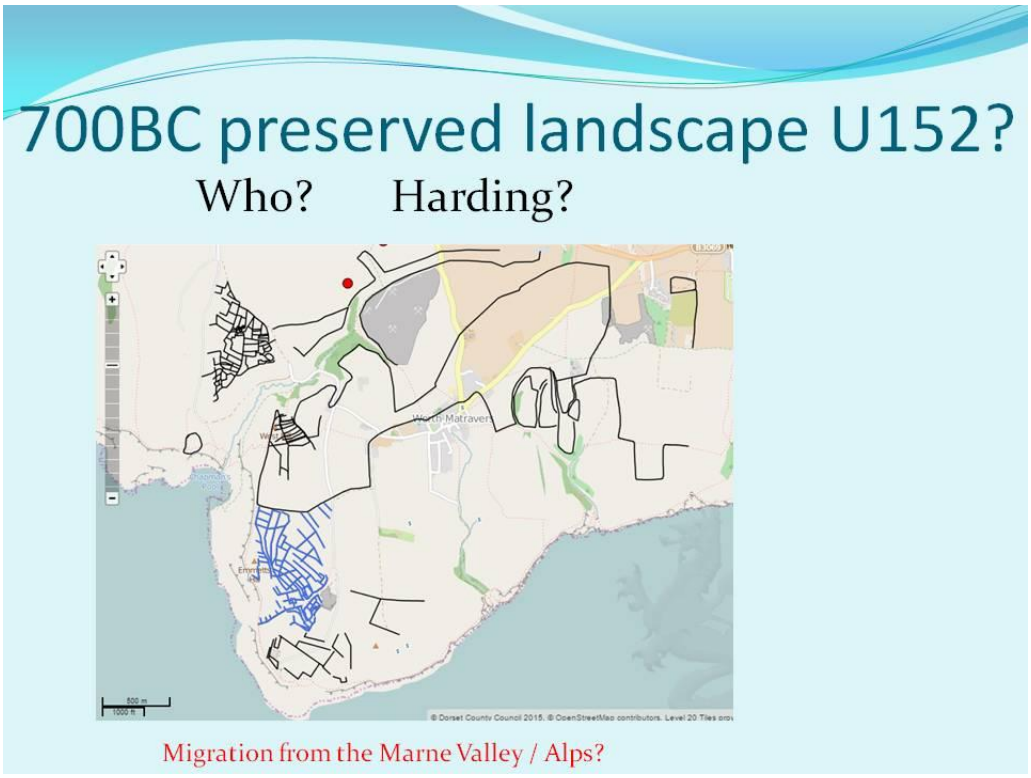
Some family projects with L21 DNA include traditional Purbeck names of Lovell and Scott and also my own Kenyon DNA line (a sub group L21-FGC5494).

So could the Lovell family have been in the area since the barrows were built? Getting ancient DNA from cremated remains is not currently possible, so we will have to wait for improvements in technology to see if we can work out the ancient DNA of those people and if living people in Purbeck may have descended from them.

Looking at the bigger picture from 1500 BC, the L21 families were living in roundhouses and developing field systems across the south of England and into northern France. The same people and culture linked these areas. Indeed, this period is called the Atlantic Bronze age and there were active trade and links between the Rhine Valley, the Isles, France and Iberia. Iberia became dominated by the L21-DF27 family branches and the Isles became dominated by the R1b-L21 family branches. These people actively traded with their distant cousins R1b-U152 who actively traded with the R1b-L21 folk at border trading posts such as Fort Harrouard in France (Brun 1993).

However, this friendly trading situation was about to change.

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According to my hypothesis, around 1150BC R1b-U152 families dominated the Urnfield Culture in Alpine Europe. They began to expand and invade areas of northern Europe and down to the Mediterranean. When they arrived in south east England they built small ringforts at places like Mucking and Thwing. They introduced plainware pottery to southern England including the site of Eldon's Seat close to Worth Matravers. These Urnfield people had an interest in Iron and they introduced the Iron Age to the Isles.

A second wave of U152 families arrived in Worth Matravers around 7-800BC. They brought iron smelting and ironworking technologies with them. They travelled from the Seine-Marne area (Champagne-Pouilleuse, Lower Marne, Middle Seine; Freidin, 1982, Turnbull 1984) where they lived on the margins of the chalk lands and on the greensand and Jurassic geologies that yielded haematite nodules and ore. They used the haematite to produce a distinctive red coating for their new style of decorated ware pottery.

These families migrated across Britain, following the greensand and Jurassic geology where they could source haematite. They built hilltop defensive settlements wherever they went and created the fossil transition landscape across the Purbeck limestone ridge.

These people collected and deposited bronze in watery places, middens (like compact Farm) and in hoards, such as the Langton axe hoard. This period of bronze deposition is referred to as the Llyn Fawr period in British archaeology after a large hoard deposit at Llyn Fawr in Wales.

I believe these people finally broke down the Atlantic Bronze Age trading network of the L21 and DF27 people. They worked their way along the south Coast of England, took control of the ports and control of tin and copper supplies of places like Dartmoor. They signalled the end of the Bronze Age and the transition to the Iron Age in Britain.

So, who in Purbeck may be related to these Bronze Age -Iron Age transition period people. We have already heard that Landers may have U152 DNA but also some Harding families from elsewhere have U152 DNA, so perhaps our own Hardings may be related to these early Iron Age people.

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Prior to this our major local hillforts were built at places like Maiden Castle, Chalbury and Flowers Barrow here in Purbeck and the same type of haematite coated pottery is associated with the early phases of these hillforts. This indicates that the extended tribe who lived at Compact Farm also built the early hillforts.

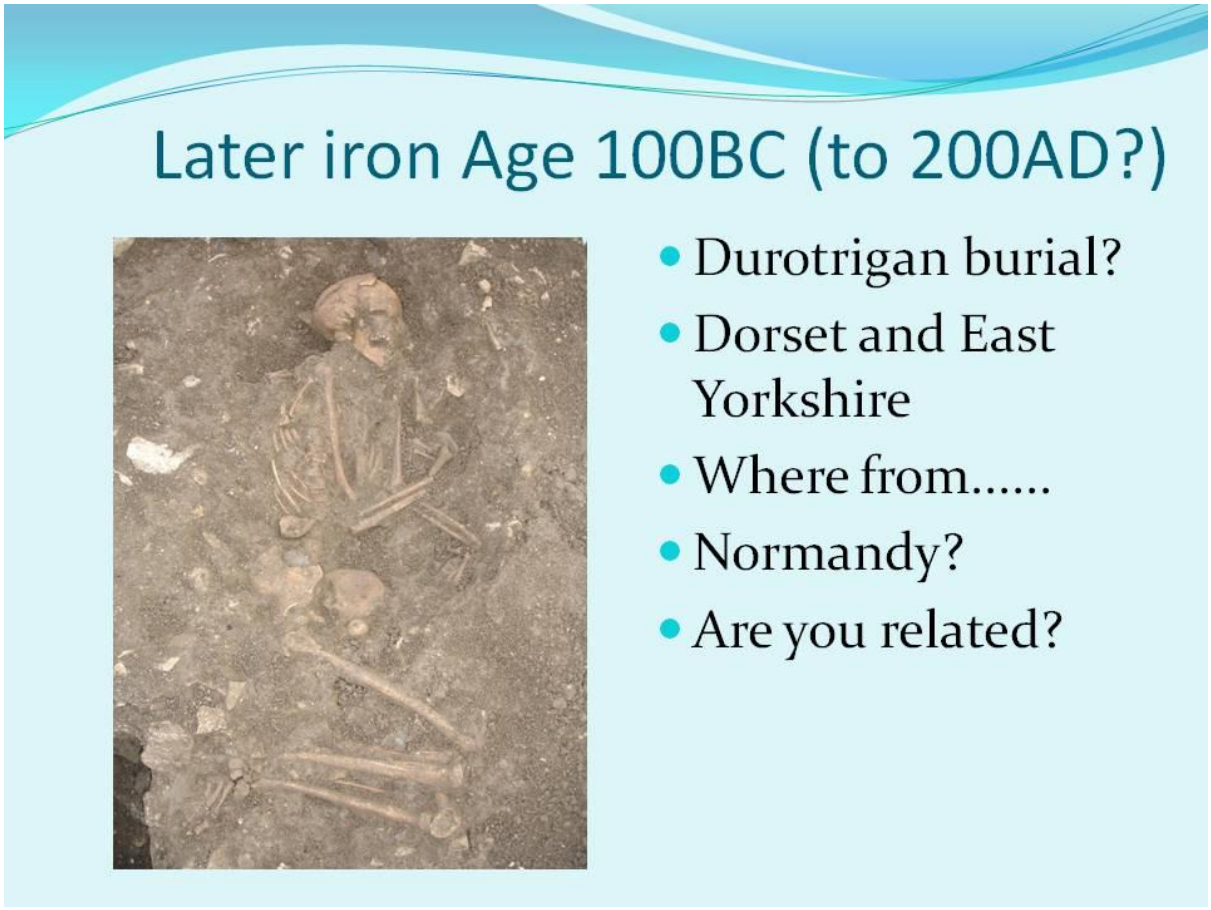
At Worth Matravers, and elsewhere in England, the settlements with decorated ware pottery seem to disappear between 600 and 400BC. A new migration of people had arrived and took over the hillforts, reworking them with multiple ramparts. I suggest that the males were predominantly YDNA type R1b-U152 - related to the La Tene people on the continent.

In Worth Matravers, around 300-200BC, they built a number of roundhouses and storage pits.

Living Purbeck people with L21 family branch DNA may include Kennedy, James, Simpson and Scott..

However, by 100BC it is highly likely that these Celtic tribes had a rather mixed group of DNA types. There had been a thousand years for the family groups, or tribes, to bring in a mix of male DNA lines. It is less likely that one tribe would be dominated by one male family branch of DNA. But we will need to wait for thousands of ancient DNA results to be available before we can start to confirm the detailed genetic makeup of these more recent cultures or tribes.

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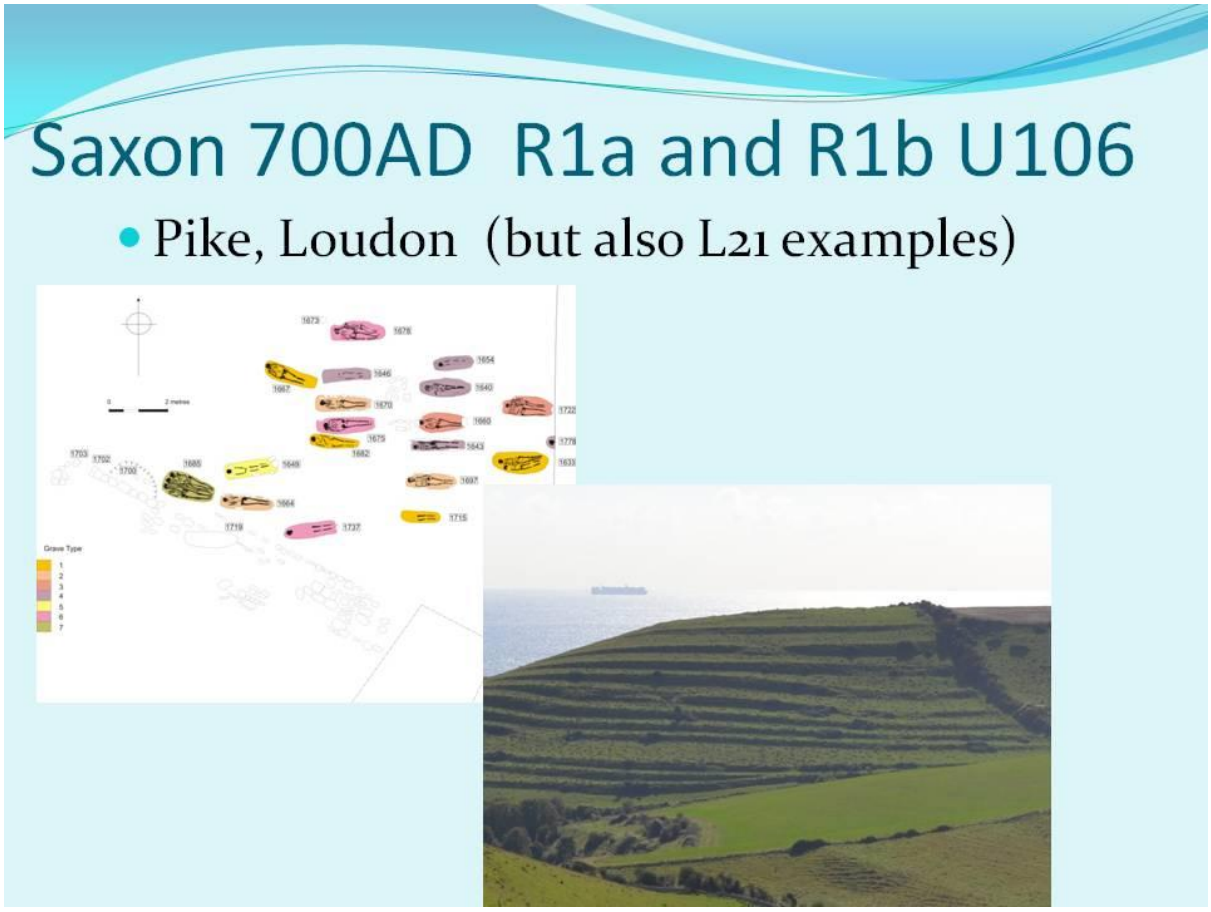


So, were our Durotrigan style burials in Worth Matravers migrants from Normandy? Are they the same family of people who migrated into East Yorkshire where similar crouched burials are found?

The Durotriges were part of a migration of 'Belgic' tribes to the east and south east of England. They re-introduced farming practices that created celtic fields and they may have been dominated by male line R1b-L21 lineages.

The only way we will know for sure is to get samples of ancient DNA analysed from our skeletal remains from the Compact Farm site at Worth Matravers and equivalent sites in Yorkshire and Normandy.

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We also have skeletal remains from our post Roman cemetery at Compact Farm.

Are these the remains of Saxon invaders from Denmark and Germany? Do they carry the typical R1a and U106 male line DNA of these migrants to our Isles (Schiffels et al 2015)?

Or are these Christian style burials from the descendants of the Durotrigan people who previously lived in the area?

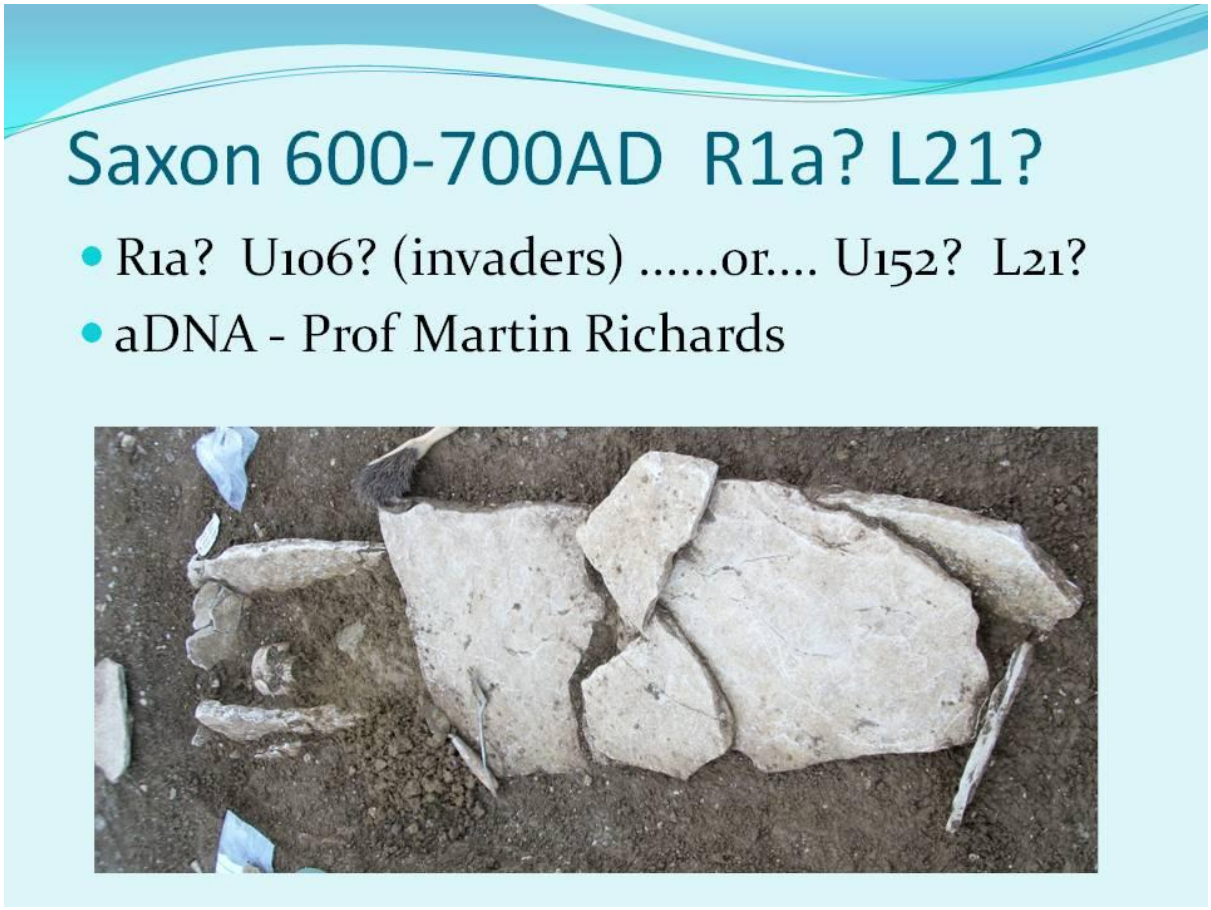
My hypothesis predicts that they will be descendants from the Iron Age Durotrigan and will have male DNA lines dominated by L21 and perhaps some U152 ‘Celtic’ DNA.

Well, my hypothesis is only my best guess. How can we know for sure? And how can we know for sure if any local people are indirectly, or even directly descended from the people whose remains we found at compact Farm?

First we need ancient DNA results from our remains.

Second we need present day DNA results from local Purbeck families.

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Well the good news is that we already have some samples of our Compact Farm site at a brand new ancient DNA laboratory at Huddersfield University.

We hope the results will answer the question of whether the people living in our post Roman cemetery are descendants of the Durotrigans or are Saxon invaders.

Perhaps an interesting project for the Purbeck Society will be to organise some modern DNA testing of local people.

Once we have both the ancient DNA results and our living local people's results, we will be well on our way to giving a definitive answer to John Austen's second question – who were the people who built the barrows (and later landscape features) and where indeed did they come from?

I have presented my best guess at the answer to his question of 160 years ago. However, I predict that in the next 10 years, we will begin to have definitive answers to those questions based on ancient and modern DNA results.

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Appendix 1 – Archaeogenetic hypothesis

Introduction

This appendix sets out a hypothesis in relation to the link between archaeological landscapes and the genetics of the people who made them. As of June 2016, there is still relatively little ancient DNA evidence available but that which is available, suggests that migration of people is important in explaining archaeological changes across Eurasia since the end of the last glaciation. This hypothesis re-introduces the idea of migration events that have fallen out of popular favour in the last 50 years.

The hypothesis below reintroduces the idea of migrations in explaining the archaeology of central southern England and is designed to be scientifically testable by use of conventional archaeological studies and the expected widespread use of ancient DNA analysis of skeletal remains.

This appendix systematically covers each archaeological period from the Mesolithic to the Saxon period. Each period has a table of key facts followed by illustrative maps (the Mesolithic section does not include maps). The tables have columns showing location, migration events, examples of archaeology / key sites and the predicted dominant male line DNA (including actual DNA where ancient DNA results are available). This information is followed by a map illustrating the migrations. There are then additional maps showing the current distributions of those male DNA lines. Current distribution, although helpful, can be misleading. For example, a later migration may have almost entirely replaced an earlier male line of DNA. For example, the Neolithic farmers almost entirely replaced the male lines of the Mesolithic period and those in turn were largely replaced by male lines of later migrations.

This model is a scientifically testable hypothesis. It is a model based on published and unpublished archaeological research, along with published and unpublished ancient and modern DNA research. It will not be entirely correct but can be used to help target ancient DNA sampling and related archaeological research. It can be updated as new data becomes available and detailed sub-clades can be added as modern and ancient DNA studies progress.

Summary tables and maps

Post glacial Epipalaeolithic-Mesolithic (12000BC to 4000BC)

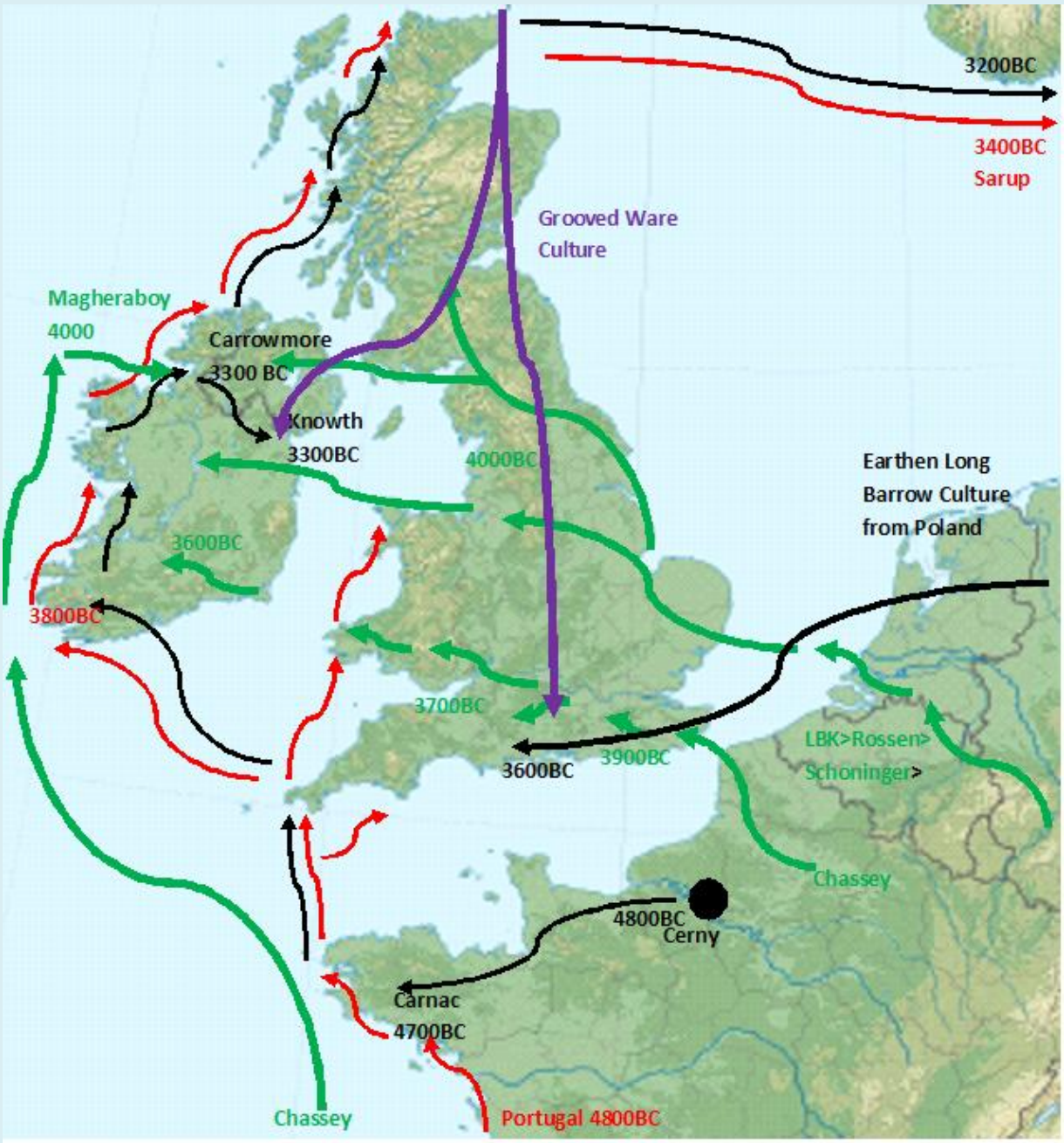
Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Isles / pre-Isles	Rehabitation from glacial refuges. Maglemosian culture Late glacial population turnover in Europe (Posth 2016)	Hunter gathers - hand axe at Harman's Cross. (ladle 1988) Camp at spring with thousands of flints at Blick Mead, Amesbury.	Villabruna autosomal cluster in Europe including Y DNA: R1b-P297, I2a, C1a, F, (Fu 2016)

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Neolithic (4000BC to 3000BC)

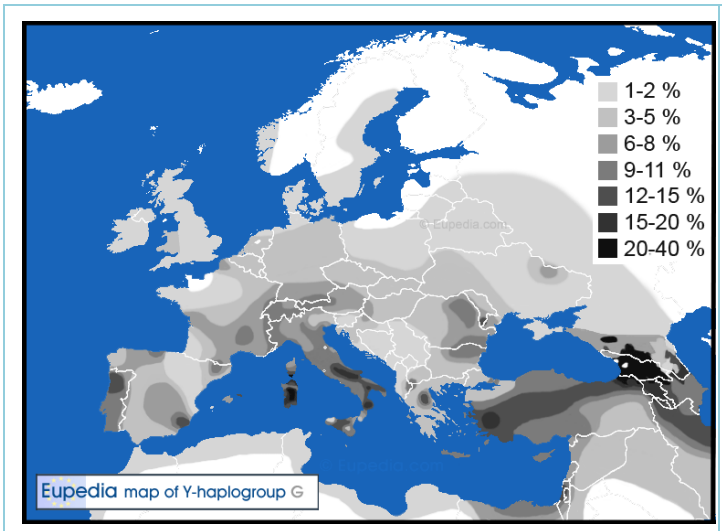
Location	Migration / culture	Archaeology	Predicted dominant Y DNA
central southern England	Major migration of farmers from N W Anatolia (Lazaridis 2016) alongside then replacing most of the Mesolithic hunter gatherers. LBK derived are the first arrivals.	LBK derived - initial rectangular houses e.g. Lismore Fields, Buxton (particularly Ireland and Scotland, to 3600BC)	G2a
	Mediterranean route migration of farmers - Chassey / Michelsberg / carinated bowl / Windmill Hill	Carinated bowl / impressed ware and causewayed enclosures e.g. Hambledon Hill, and possibly Compact Farm about 3700BC	G2a and E1b
	Long Barrow Culture from Poland (4100BC) via Denmark (3900BC) (Bradley et al 2016 P73) 'eastern Neolithic'	From around 3600BC eg Fussell Lodge and on chalk ridge at Ninebarrow Down Cursus development e.g. Dorset Cursus - aligned on long barrow	I1, I2a2 G2a
Britain and Ireland	Grooved Ware Culture from 2900BC amalgamated east-west Neolithic	Henges and timber circles, Britain and Ireland e.g. Woodhenge. Grooved ware, cremations. Stones of Steness. Stonehenge,	I2a & G2a
Cornwall, Wales, Ireland, West coast of Scotland & Dorset (minor impact - dolmen)	Megalithic - migrating north (e.g. from Portugal 4800BC Cerda et al 1986)	Dolmen building 1-200 years prior to passage graves)	(Possible R1b-V88 involvement) I2a later associated (Lacan 2011)
	Migration of the Cerny culture in northern France (established 4900BC) along the Atlantic coast south to Iberia and north along the coast of the Isles (3700BC) into Scandinavia 'western Neolithic'	Passage graves eg Carrowmore, Achnacreebeag (Sheridan 2010) Origins of circular buildings / roundhouses Later stone circles	I2a1

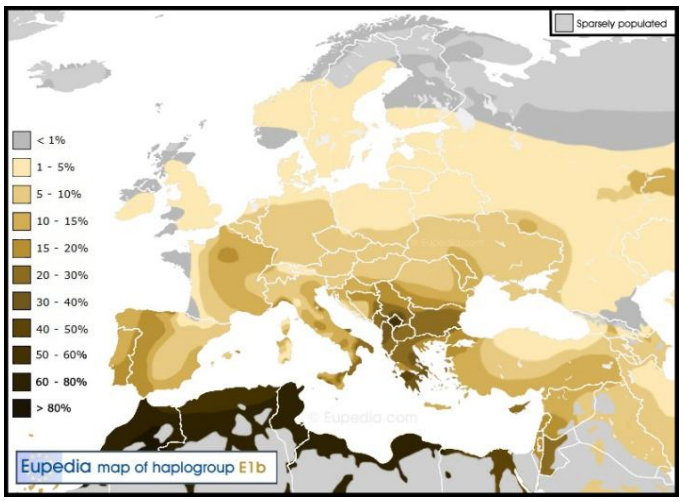
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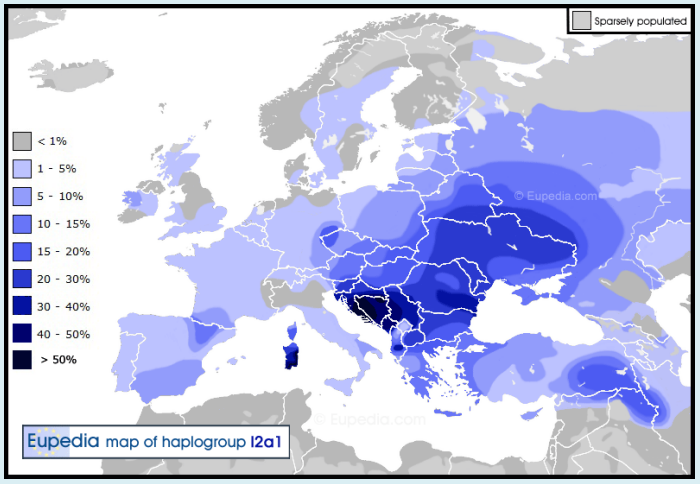


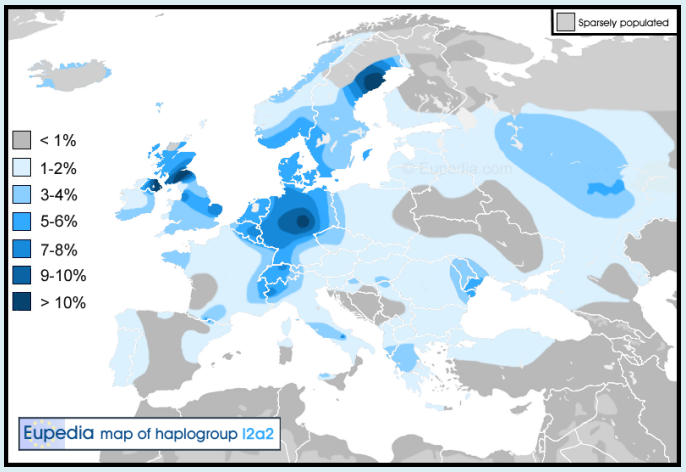
→	(Possible)migration 1 Dolmen culture - 4000BC from Portugal to Poulnabrone 3,800Bc to Sarup 3,400BC	Possible R1b>V88 mixes I2a
→	Cerny Culture - Passy monuments and passage graves of Atlantic Becomes dominant **'western Isles' Neolithic** culture - evolves with round houses, circular monuments, stone circles	I2a1
→	Farmers from fertile crescent via Anatolia a. LBK via Danube - rectangular houses b Chassey/Michelsberg via Mediterranean - causewayed enclosures, flaked flint arrow heads, impressed ware	 a G2a b G2a with some E1b
→	Earthen Long Barrow Culture - becomes **dominant 'eastern Isles' Neolithic** Culture. Evolves with rondels/ henges	I1, I2a2 & G2a
→	Grooved Ware Culture - amalgamated eastern and western Neolithic Links Orkney, Newgrange, Stonehenge. Evolves cremations.	I2a dominant

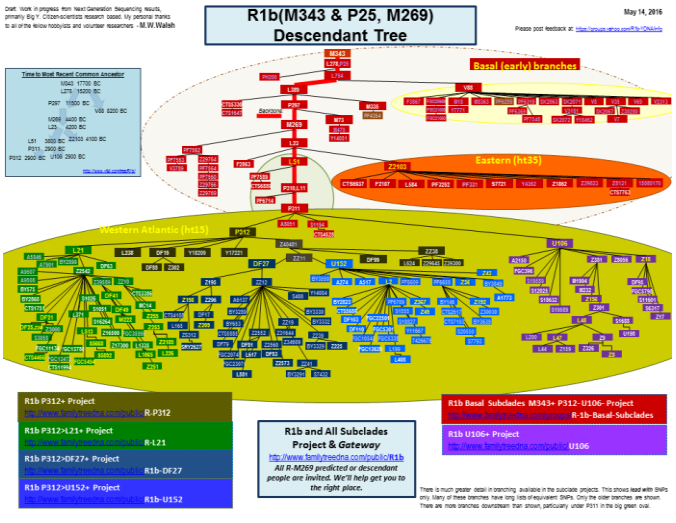
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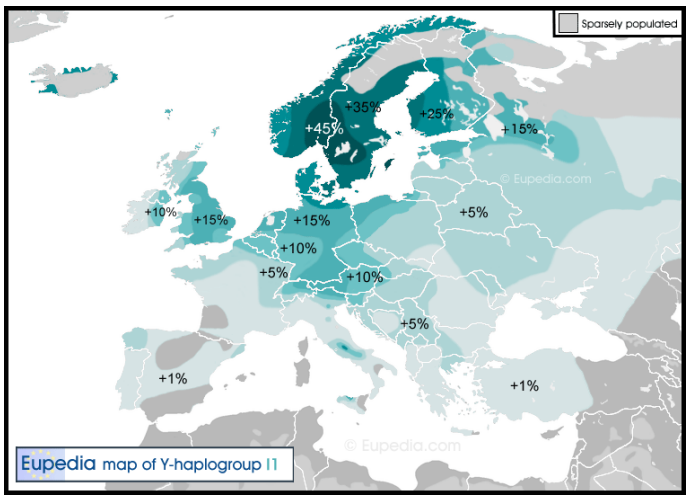












[All present day DNA distribution maps by Maciamo Hay, Eupedia and reproduced by permission. Maps based partly on maps and data from Myres et al (2011)]
www.eupedia.com/europe/Haplogroup_R1b_Y-DNA.shtml

R1b tree by Mike Walsh: https://www.familytreedna.com/groups/r-1b/about

[Migration map partly based on new unpublished dates from papers presented at the Prehistoric society Europa Conference in Dublin, May 2015 by Betina Schultz Paulsson, Serge Casson, Alison Sheridon, Ann Lynch, Niels Anderson and Karl-Joran Sjogren

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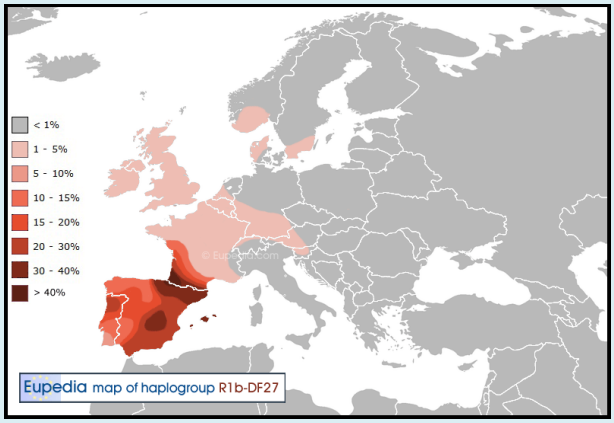
also Brandt et al (2013), Brandt et al (2014) Haak et Al (2015), Allentoft et al (2015), Fu et al (2012), Rivollat et al (2015), Olalde et al (2015), Szécsényi-Nagy et al (2015), Hofmanová et al (2016) Balaresque et al (2010), Bedault (2009), Whittle et al (2011), Pala et al 2016)]

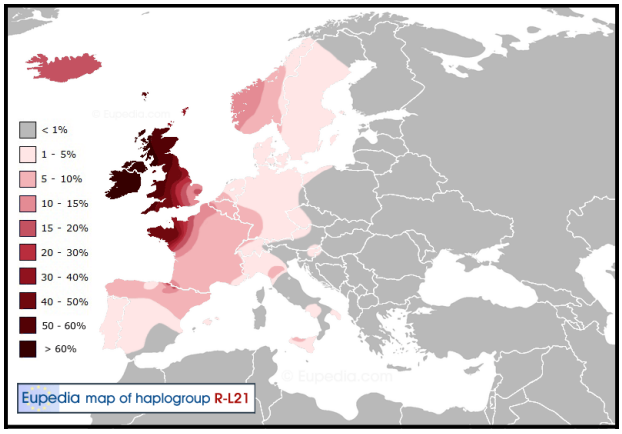
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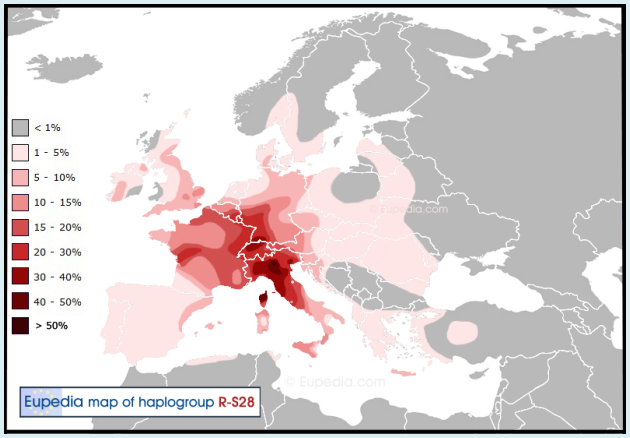
Continental Beaker Network and Atlantic 1 Network (2450BC to 1700BC)

Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Mainly eastern Scotland and eastern England	Beaker migration from central Europe (Brortherton et al 2013, Haak et al 2014, Clarke 1970, Lee et al 2012 Manco 2013, Jones et al 2015)	Flat graves with beakers and metal finds e.g. Amesbury Archer. (Cleal and Pollard 2012, Fitzpatrick 2013) Later bowl and disc barrows (Woodward 2000)	R1b-U152
Northeast Scotland and Net Down, Shrewton in Wessex	Conflict between eastern Chalcolithic Beaker groups and rich western 'Bronze' cremation groups	North East Scotland **Chalcolithic** - 107 beakers from burials from 2450BC Ring ditch flat burial. Archer burials Morray Firth and East Central - from 2200 (Fission horizon) = **Bronze Age** = barrow burials with cremations, food vessels (from Ireland) rich burials e.g. Seafield West Inverness Irish Bowl Cornish Tin, Irish copper and bronze Curtis and Wilkin (2012). Wessex - Modifying each other's barrows and placing their own burials in the top e.g. Shrewton G5L (Martin 2011) Beaker bowl barrows (U152-L2) v Cremation bell barrows and collared urns (DF13)	Rib-U152 (beaker) conflict  R1b-L21>DF13>DF21 (related to food vessels) and DF13>DF63 and/or (DF27>ZZ19) (related to collared urns)
Ireland, western England and western Scotland	Maritime Beaker Food vessel 2450-2200	Early use of passage graves, wedge tombs in Ireland. Western maritime Beaker in south Dorset (Field 2008)	R1b-L21
	Atlantic Bronze Age 1 2200BP Cordoned Urn culture north east Ireland and east Scotland Collared Urn culture England into Ireland (not Scotland) (to 1700BC)	Bell barrows in Wessex Early ditched field systems and arable crops at Bestwall, Poole Harbour (Ladle and Woodward 2009)	R1b-L21-DF13 sub-clades and /or DF27(family branches) (DF27>ZZ19 or DF27> Z196(?) link to bi-conical urn and Hilversum?)

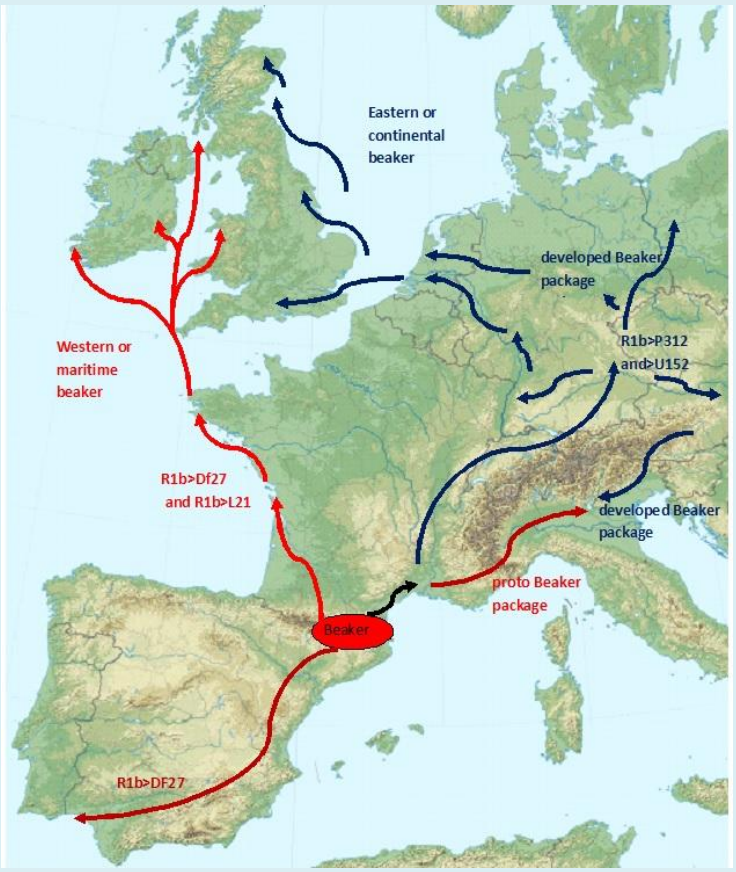
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Beaker map 1 based on evolution of Beaker pottery (Clarke 1970 p47-51)

[Present day DNA distribution maps by Maciamo Hay, Eupedia and reproduced by permission. Maps based partly on maps and data from Myres et al (2011)]

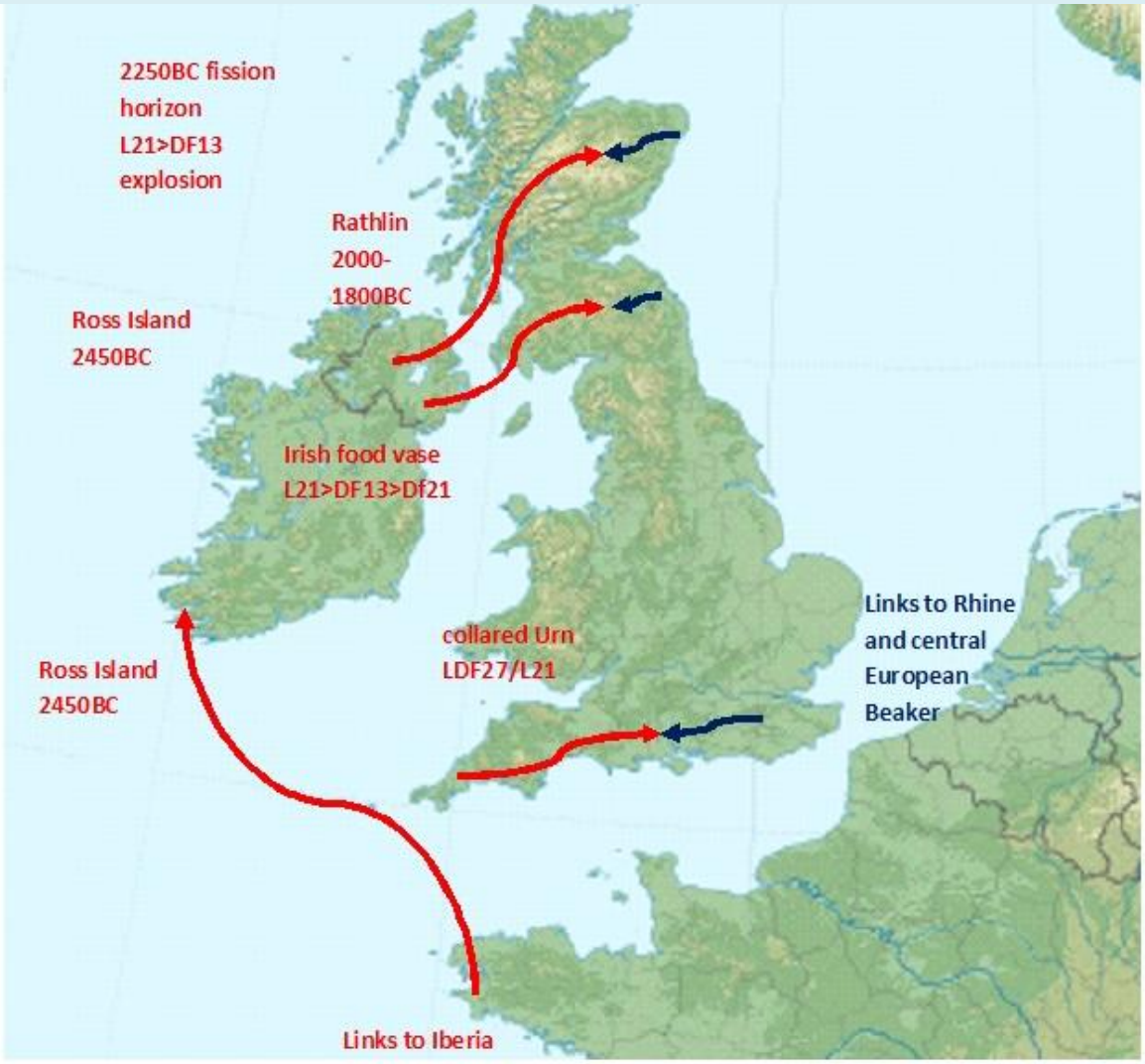
The three maps are three branches of R1b>P312 and collectively they may be considered the main people of the Celtic families.

Map to right is R1b>U152 (also known as R-S28) U152 is the dominant Y DNA line of continental Beaker, and later the Alpine Urnfield group.

DF27 and L21 are the dominant Y DNA lines of the Atlantic Bronze age

NB. Route of R1b to source area of Beaker - awaiting imminent release of Beaker aDNA papers. However, the recent release of autosomal data from a Chalcolithic male from Armenia (sample Areni-1 about 4000 BC male DNA L1a Lazaridis et al 2016) shows a significant shift towards modern European autosomal DNA. This indicates a movement of people out of the Steppe and that could include the line R1b M269.

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Wessex-Continental network and Atlantic Bronze Age 1

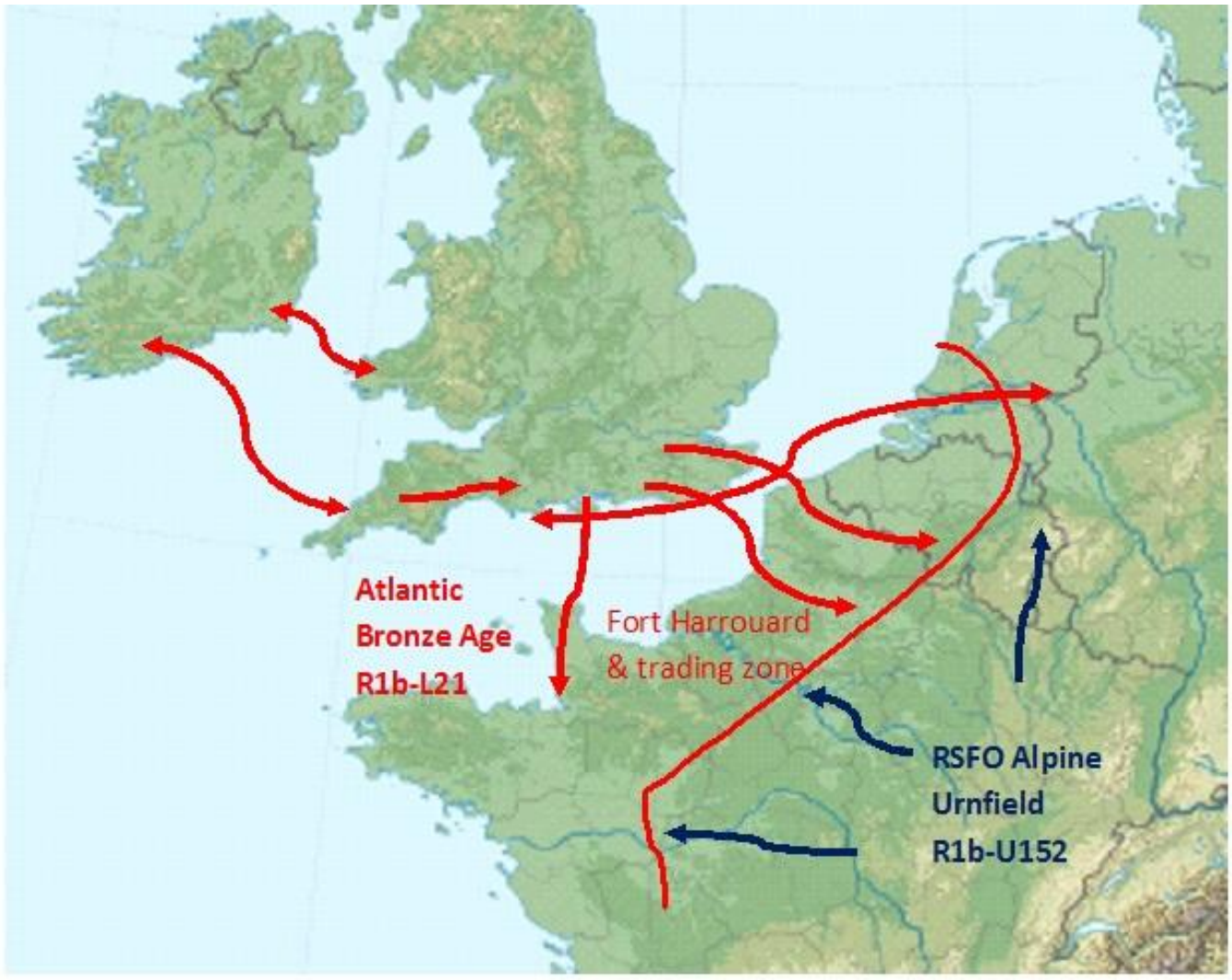
→	L21>Df13 and DF27 rapid expansion - developing variety of pottery types and cremation burial culture Bell barrows in Wessex Conflict with eastern Beaker in Wessex e.g. Shrewton 5K barrow at Net Down(Martin 2011) and NE Scotland (Curtis & Wilkin 2012) **Bronze** - control of **tin** supplies and bronze making technology	R1b>DF27 R1b>L21>Df13
→	U152 - eastern Beaker Links Wessex-Rhine- Flat graves then later bowl barrows. **copper** and trade with eastern Beaker - princely graves	R1b>U152 R1b>U152>L2

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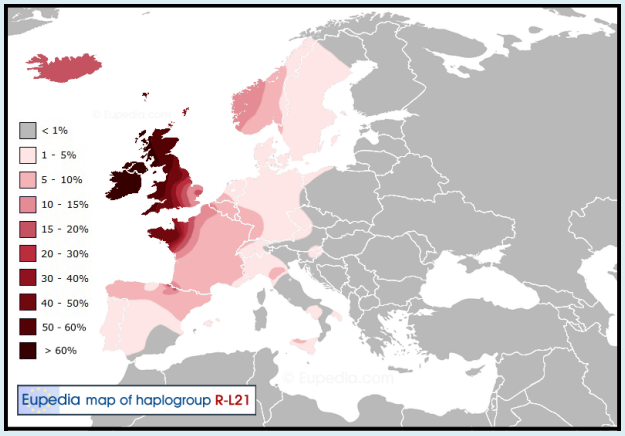
Middle Bronze Age (1700BC to 1150BC/950BC)

Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Southern England, northern France, Belgium, Netherlands (part) and Lower Rhine Wessex 2	Expansion and migration into the continent. Bi-conical Urn / Deverel-Rimbury / Hilversum culture south from Rhine (1700-1400)	Bi-conical Urn and Deverel Rimbury bucket urns, globular urns and barrel urns (Calkin 1964), (1700-1400-1150BC) Period of barrow building south of Rhine with bronze artefacts 1700 to 1400BC (Bourgeois and Fontin 2012) Shared culture of pottery, roundhouses (Bourgois and Talon 2009, Cunliffe 2013 P227, Marcigny 2015)	L21>DF13 sub-clades
Frome Valleys network (Poole Harbour upstream	Deverel – contact with Cornwall – general continuity from bi-conical urns Atlantic Bronze Age links south to Iberia and south of Rhine Migration of Deverel culture (including roundhouses) to Normandy	Small 'poor' barrows eg St Aldhelms, field systems (Yates 2007), roundhouses Pastoral phase (Bestwall) two phases of field systems 1700-1400BC Some crops - emmer wheat, hulled barley, oats, celtic beans (Ladle and Woodward 2009) Feasting and burnt mound phase 1250-950BC with (Rimbury) Urnfield influence	R1b-L21-DF13 subclades
Bournemouth - Christchurch Harbour **Avon valleys network (Christchurch harbour upstream)**	1250-1050 - 900BC General continuity (then plainware Urnfield U152 migration from south of Rhine?)	Simon's Ground barrows with barrel urn and simple decoration globular amphora phase 1250-1050BC then linear Urnfield 1050-900BC with globular amphora and bucket urns (White 1982)	R1b-L21-DF13 subclades

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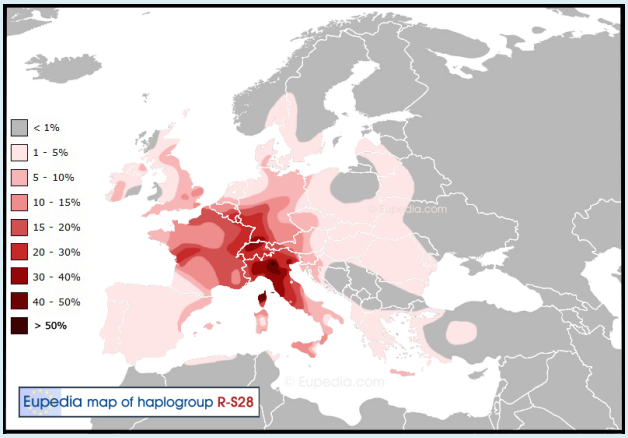


Map of late Atlantic Bronze 1 about 1300BC



L21 DNA map by Maciamo Hay, Eupedia

www.eupedia.com/europe/Haplogroup_R1b_Y-DNA.shtml



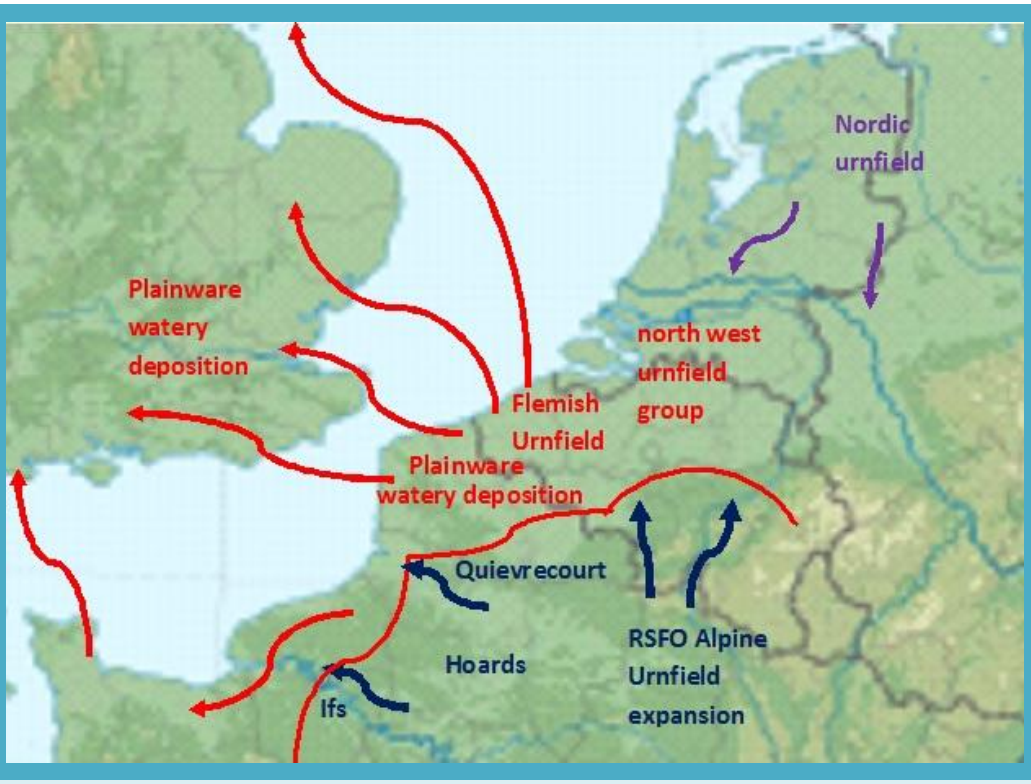
U152 DNA map by Maciamo Hay, Eupedia

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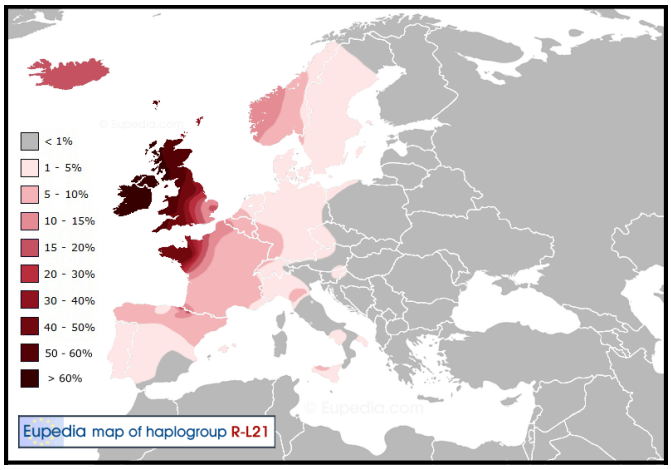
Atlantic bronze Age 2 - Late Bronze Age (1150BC/950BC to 900BC/800BC) - Plainware (but enclaves of surviving Deverel Rimbury culture)

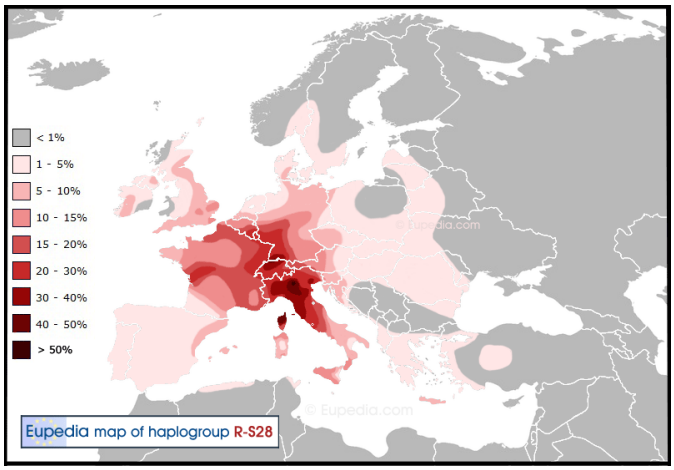
Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Phase 1 Post Deverel Rimbury - Plainware **eastern England, southern England, Ireland**	From Scheldt to Thwing Ringfort Spreading west across southern England - Thames Valley (leading to Ewart Park deposition phase) to South Cadbury to Brean Along south coast to Bestwall (Poole Harbour) c975BC to Tremough in Cornwall S Wales (Llanmaes) Severn Estuary - Brean, to Gloucestershire west margins of Cotswolds before 850BC leading to Llyn Fawr deposition phase South west from Scheldt to Normandy and ringforts at Malville -sur-le-Bec and Cagny in Normandy by 900BC, Bourgeoise & Talon 2009)	Post 1150 BC progression from Deverel-Rimbury at Pingewood, Reading Business park (Berks) and Eynsham Abbey (Oxfordshire) (Needham 2007 45) Change in pottery form to bowls and jars. Also dish and lid forms. Change pastoral to cereal focus with earliest (?) formation of lynchets (from new ploughing techniques?) Some midden development (?) but most in decorated ware (post 850BC). From 950 BC Ewart Park watery deposition and field systems (Yates 2007a) and mixed hoards of recyclable material (Huth 2000 32). peak deposition around 850BC as transition begins and decorated ware starts to appear ((Needham 2007 42-49) Ringfort /ringwork, large roundhouses, plainware - Thwing (Bourgeoise & Talon 2009), Tremough, Cornwall (Jones 2015). Aldermaston, Knights Farm (Reading Business Park), Rams Hill (Barrett 1980) Also hillforts with large roundhouse in Ireland of similar form to ringworks of England (O'Connor 2013) Bestwall - Plainware, roundhouses and cereal phase from c.950BC (Ladle and Woodward 2009) Eldons Seat, Chalbury (pre ramparts) and Kimmeridge plainware phase(Cunliffe & Phillipson 1968) Cadbury Castle - Plainware beneath lynchets (Barrett et al 2000) South Cadbury - ringwork with plainware at Sheep Slait (Tarbor 2008a) Brean Down (Bell 1990 Pp253-254) - Severn valley and Welsh Borders to Sussex, Plumpton Plain (Woodward 1990) - both containing transitional pottery sequence to decorated ware (Needham 2007 45,47) Kemerton, Worcestershire (Woodward and Jackson 2005, Jackson 2015) Roundhouses (Bruck 2007)	L21>Df13 sub-clades 'new eastern Atlantic' network Thames - Continent focus

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Plainware - map base on Bourgeoise and Talon 2005, Bourgeoise and Talon 2009, De Mulder & Borgeois 2011, Mordant 2013, Cunliffe 2013, Brun 1993, Barrett 1980.and Marcigny 2015.





L21 DNA map by Maciamo Hay, Eupedia

U152 DNA map by Maciamo Hay, Eupedia

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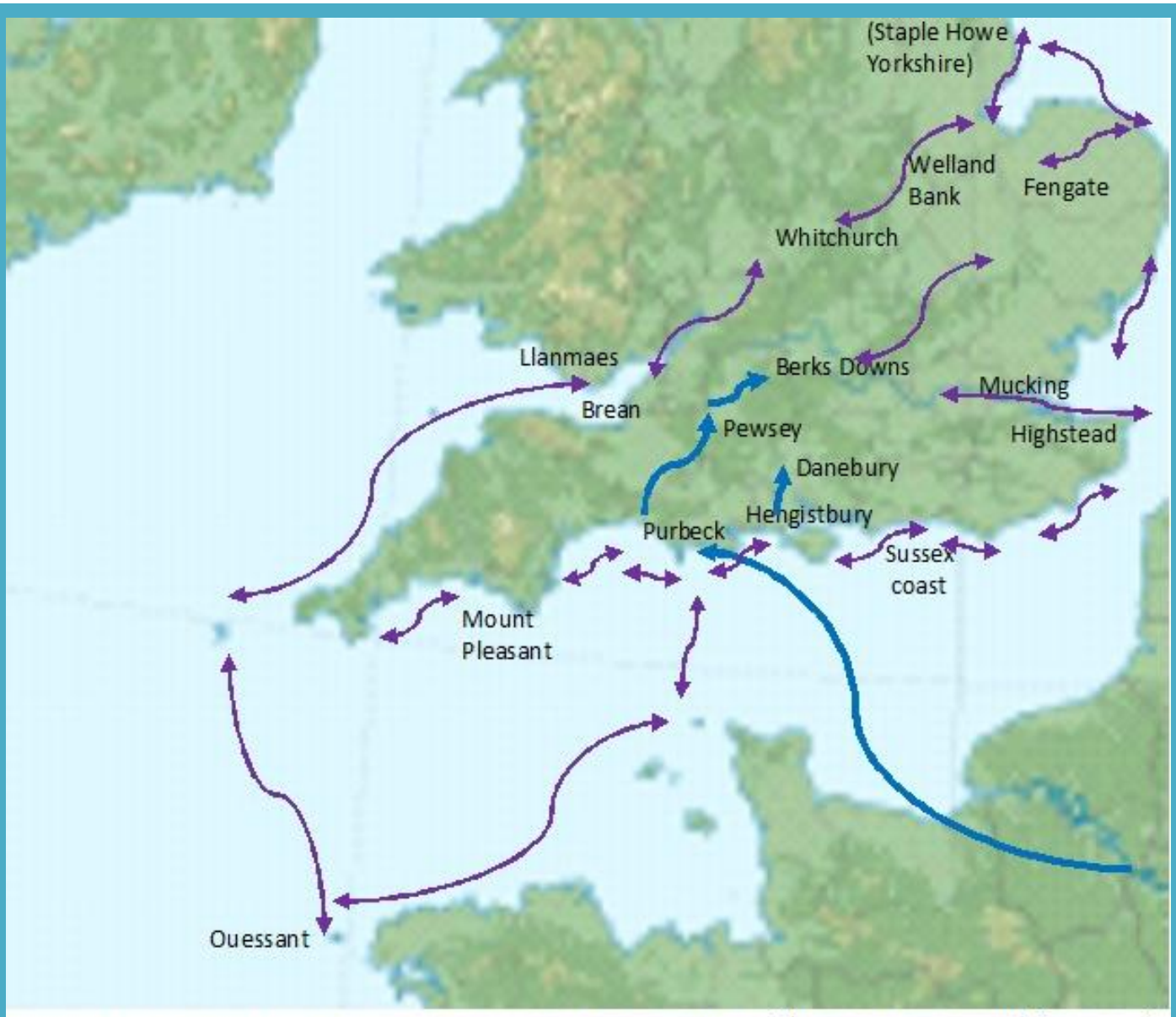
Bronze Age – Iron Age Transition (900 to) 800BC to 600 and Early Iron age 600-400

Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Phase 2 Decorated Post Deverel-Rimbury **eastern England, central and southern England and into South Wales**	Migration from the east (decorated but no haematite finish) From south of Scheldt to Normandy and Thames - Mucking North and South Ring by 900BC. Thames Valley to Runnymede, Wallingford And across eastern / southern England into Welsh borders.	Feasting and midden formation Linear boundaries and hilltop enclosures followed by early uni-vallate hillforts Linear boundaries to define territories and arable /pastoral divisions Also separation between areas of conflicting DF13/U152 tribes/families post Deverel Rimbury at Mucking North Ring site (later phase), and Runnymead (Bond 1988, Needham and Spence 1996, Bourgeoise & Talon 2009, Barrett 1980). East coast, Staple Howe, Yorkshire (Brewster, 1963 58-109) to Mucking in Thames Valley (Bond 1988) S Wales (Llanmaes) Gloucestershire west margins of Cotswolds north to Whitchurch by 850/800BC and midden formation through to 600/550BC (Waddington and Sharples 2011) Progression at many sites from plainware through transition to decorated ware - Brean, Norton Fitzwarren, (Somerset) Eldon's Seat, (Dorset)Balksbury, Potterne, East Chisenbury (Wiltshire), Whittenham Clumps, Wallingford, (Oxfordshire) Runnymede, Knights Farm, (Berkshire) Mill Hill, Highstead, (Kent) Lofts Farm (Essex) (Needham 2007 42-49) - with Ewart Park bronze deposition peaking just before / into transition from 850-800BC	U152 influenced areas of the 'eastern Atlantic'

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Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Haematite slip decorated wares **Greensand margins of Cretaceous chalk, Kimmeridge Beds, Jurassic sands and oolites – all with available sources of Haematite:** **Hengistbury Head (Cunliffe 1978 P26) to Balksbury (Cunliffe 2000).** **Purbeck to east of Bridport (e.g. Abbotsbury haematite beds outcropping at Abbotsbury, Litton Cheney and Long Bredy).** **Cadbury Castle (Tarbor 2008a).** **Vale of Pewsey (Tubb2011)**	'From south' Major migration of RSFO derived Alpine U152 tribe Invading haematite rich areas of Greensand and Jurrasic geology Upper Seine Group - ribbed bowls etc - settled areas of oolite and chalk in France (Sanders 1947 P89-111) (Turnbull 1984)	'Rapid changes in settlement and landscape organisation and the re-orientation of long distance networks' (Barrett and McOmish 2009 P572) "...provided the context for the full adoption of Iron working." (P575). Decorated Ware pottery -haematite coated - parallel with Seine Marne Group "plain red slip wares, of Urnfield tradition, are relatively common". Freidin (1982 P134 & Fig 42 p769 illustrates the furrowed bowls) Midden deposits and Llyn Fawr hoards e.g. Langton Matravers (O'Connor 2007, Roberts et al 2015) , "hoards containing as cast axes" (Huth 2000 27), Early lynchet formation and other associated field systems Hilltop enclosures Development of linear ditches for defining territories and separation of U152 and L21 tribes Linear lynchet divisions in Purbeck partially ditched at Gallows Gore and ditched linear at Wareham meadows and forest (Military Ditch complex) Ealy Hillfort development associated with haematite coated wares at Chalbury (Whitley 1943) then Maiden Castle (Wheeler 1943) from about 600-550BC Little Woodbury - Later All Cannings Cross haematite ware (Brailsford 1948) 'Classic' Iron Age settlement of Little Woodbury - banjo type enclosures (Davis 2011) Hillfort development at Danebury, Bury Hill, Balksbury from 600BC (Cunliffe 2010) (eastern limit of haematite wares?) Hillfort development at Cadbury Castle with associated haematite coated bowls and roundhouses by 500BC (Tarbor 2008a)	R1b-U152 dominated male lines
West - Llyn Fawr, Llanmaes		Llyn Fawr metal deposition deposition - final phase post 800BC - Wessex to severn Valley to south Wales Decorated ware and midden site at Llanmaes (Waddington and Sharples 2011)	U152 influenced area

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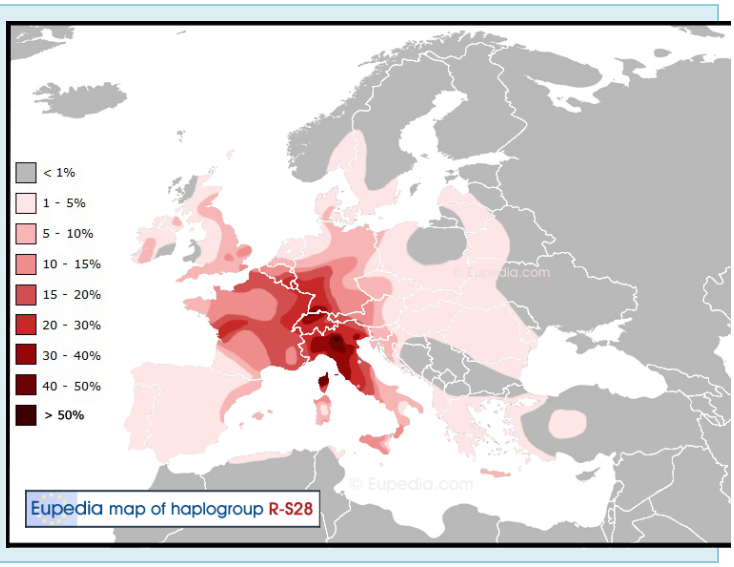
Bronze Age-Iron Age Transition 800-600BC Seine-Marne source of haematite ware and decorated Post Deverel-Rimbury Ware trade network and settlements

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Map (above) based on information from sources inclusing: Bourgeoise and Talon 2009, De Mulder & Borgeois 2011, Mordant 2013, Cunliffe 2013, Brun 1993, Barrett 1980, Ladle and Woodward 2005 Needham 2007 Marcigny 2012, Barrett and McOmish 2009.

U152 DNA map (right) by Maciamo Hay, Eupedia

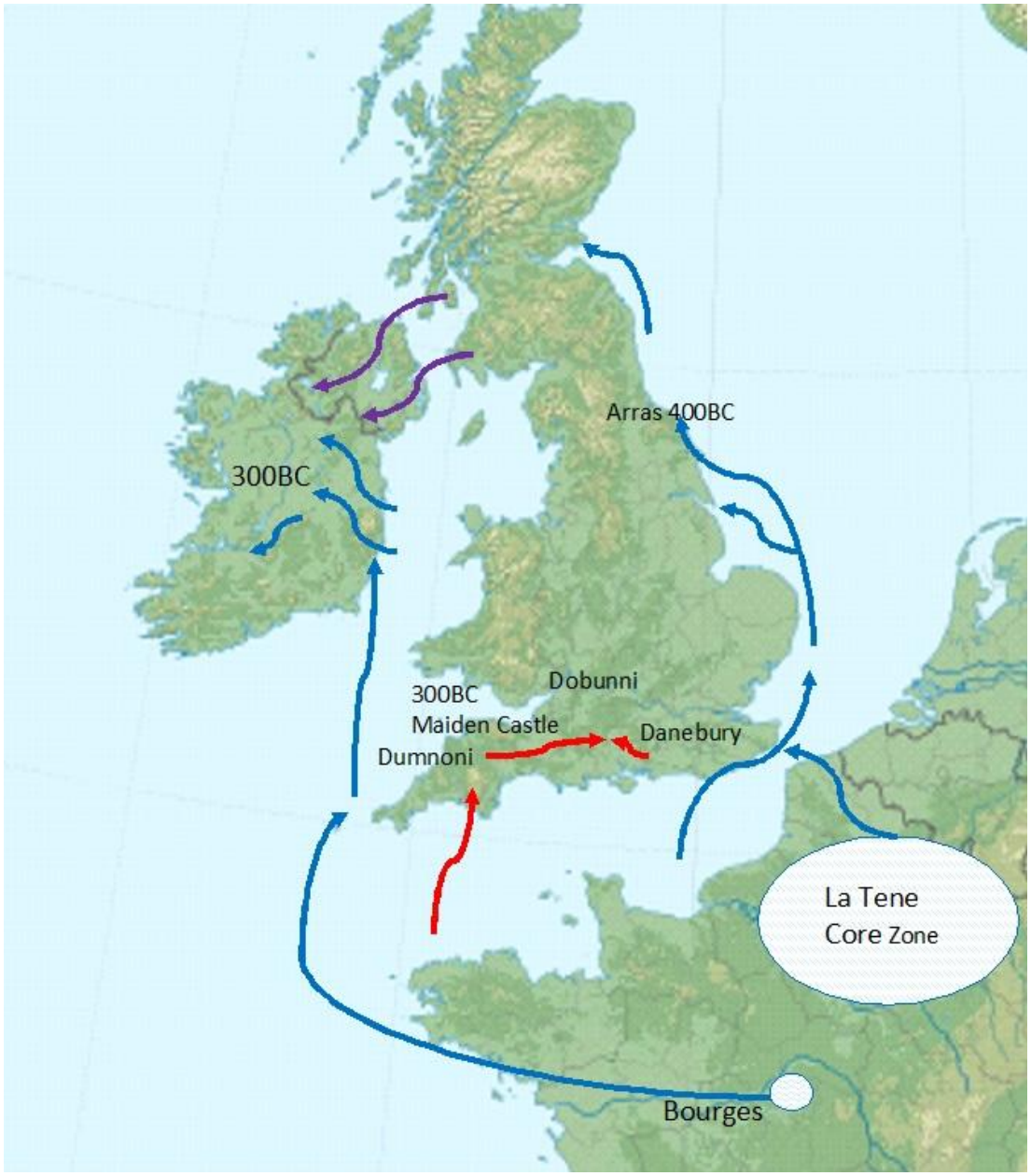
www.eupedia.com/europe/Haplogroup_R1b_Y-DNA.shtml



Middle Iron Age 300BC to 100BC

Location	Migration / culture	Archaeology	Predicted dominant Y DNA
Central Southern England **Maiden Castle, Cadbury Castle**	'La Tene west' migration from Brittany (Wheeler 1943) L21 refugees from Brittany as a result of U152 La Tene advance from Core and Bourges centres of expansion.	Major re-modelling of hillforts and heavily occupied with rows of roundhouses Multi-vallate development of hillforts with precedents in southern Brittany (Wheeler 1943). Slingstone culture, virtual absence of contemporary La Tene metalwork. (Wheeler 1943) Danebury evidence of slingstone attack and burning of gates (Cunliffe 2000 195) Maiden Castle-Marnhull wares, saucepan pots with imported south west wares (Glastonbury ware) (Wheeler 1943, Sharples 1991) Cadbury Castle Saucepan pot wares : Wiltshire - Yarnbury-Highfield Style and St Catherine's Hill - Worthy Down type (Cunliffe 2000) Continuum from Sussex coast to Welsh Border (Sharples 2010 P125)	R1b-21 sub-clades dominant with greater mix of other Y DNA lines
East England	'La Tene east' migration from northern France - Marne - Moselle La Tene core region.	East coast by 400BC e.g. Arras culture of North Yorkshire - chariot burials like those of Seine Valley (Cunliffe 2013 p316)	R1b-U152 sub-clades dominant with greater mix of other Y DNA lines

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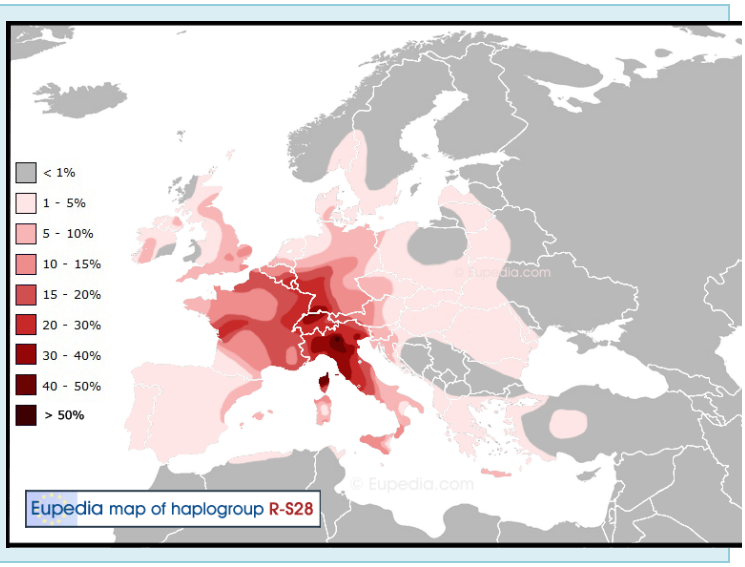


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Map (above) based on information from sources including: Wheeler 1943, Bourgeoise and Talon 2019, De Mulder & Borgeois 2011, Mordant 2013, Cunliffe 2000,Cunliffe 2013, Brun 1993, Barrett 1980, Ladle and Woodward 2005.

U152 DNA map (right) by Maciamo Hay, Eupedia

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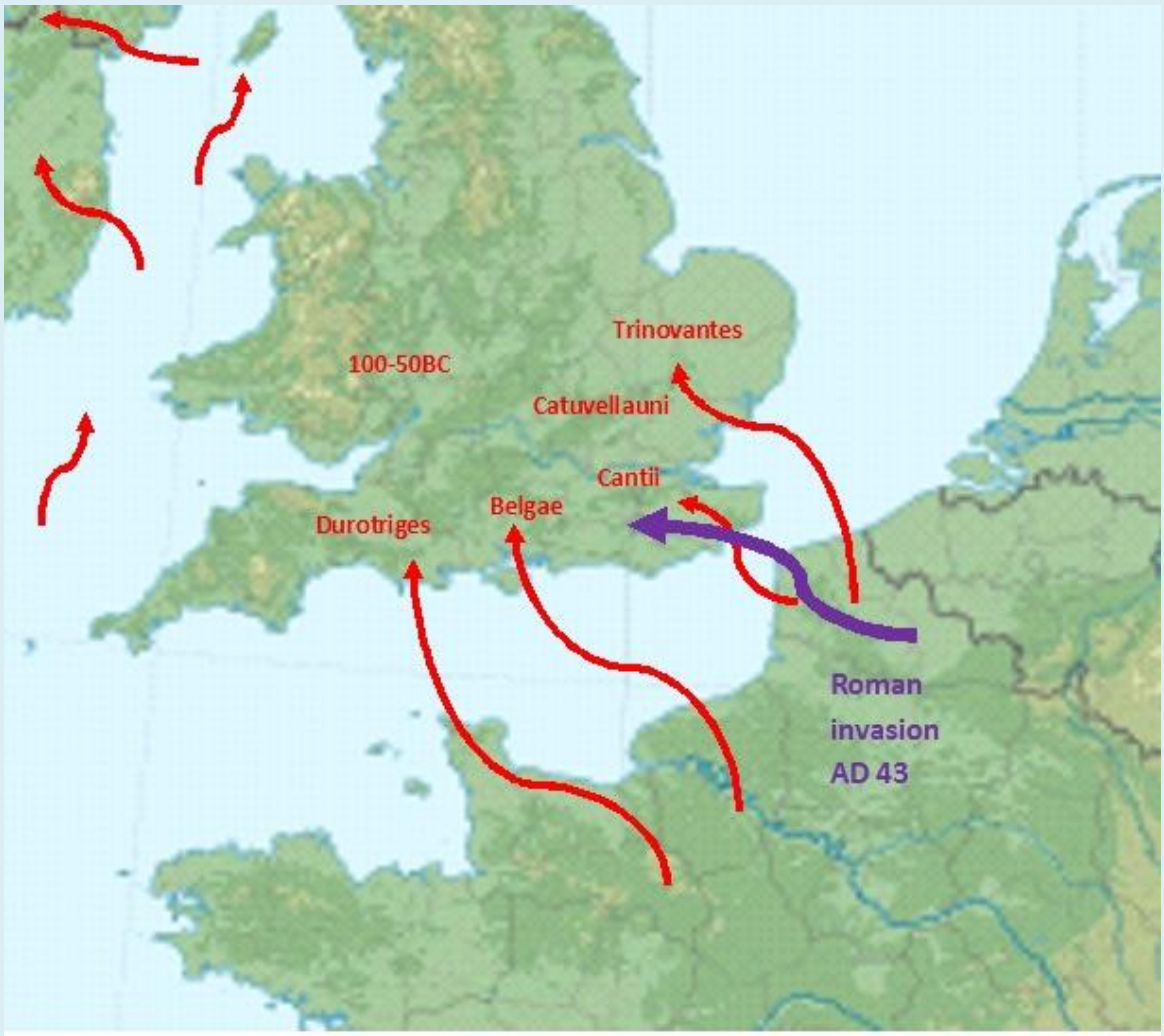


Late Iron Age from 100/50AD and Romano British from 43AD

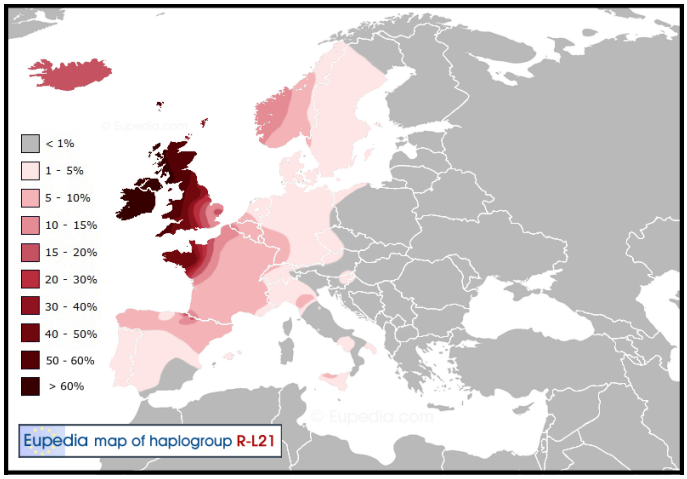
Location	Migration / culture	Archaeology	Predicted dominant Y DNA
southern England and eastern England	Migration of Belgic tribes from Flanders to Normandy that were fleeing Germanic advances from north / north east and Roman advances from the south. 100-50BC	Durotrigan pottery in Poole to Cadbury and Durotrigan style crouched burials at Compact Farm (Ladle forthcoming) Belgae occupy Berry Hill and then conquer Danebury forcing Atrebates further north (after Cunliffe 2010). Tribes from Belgica occupy Kent and East Anglia	R1b-L21 dominated tribes with mix of other Y DNA
south west England	Beyond migrating Belgic tribes.	Dobunni "rebels" on Somerset greensand hillforts (Papworth 2011)	Dubonii U152 tribe?
Hinxton **Cambridge area**	Corieltauvi - border with Iceni (Hill 2007 P17) Or Catuvellauni (Cunliffe 2013)	Ancient DNA tests of Late Iron Age skeletal remains at Hinxton (Schiffels 2015)	L21 L21-DF21
Kent then England 50AD	Roman	Roman forts, roads, towns etc	Varied (see below)
York, Driffield Terrace - Roman **(Martiniano 2016)**	Mix of L21 from Iron Age with Germanic / continental element	Roman (local gladiators or legionaries)	2 x L-21 2x U106 1x DF19 1 x U152

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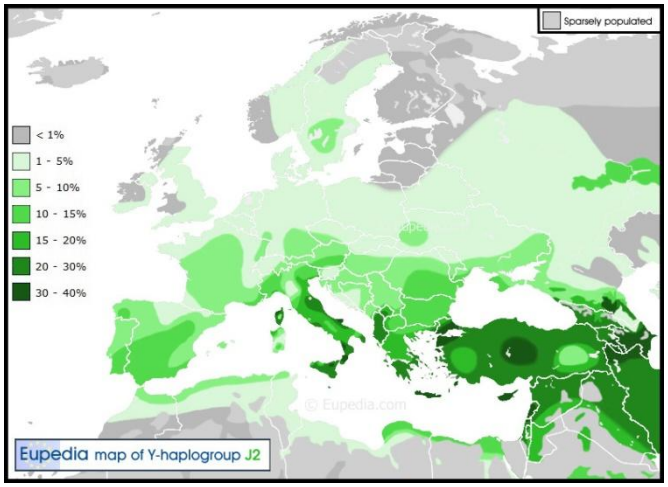
	Some 'incomers'	N Africa Roman Legionary?	J2>L228



100-50BC Late Iron Age Belgic migration and following Roman invasion



L21 DNA map by Maciamo Hay, Eupedia



J2 DNA map by Maciamo Hay, Eupedia

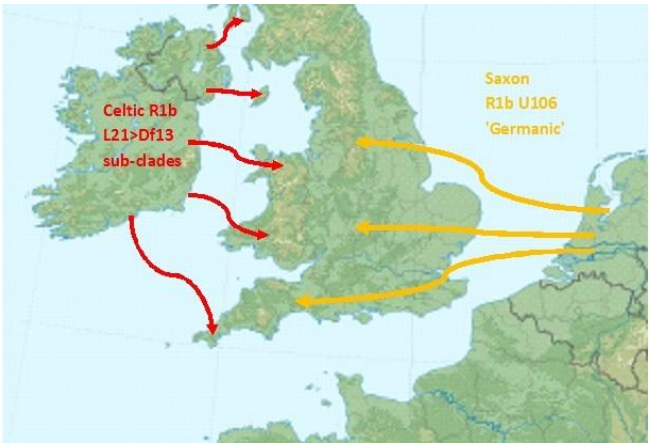
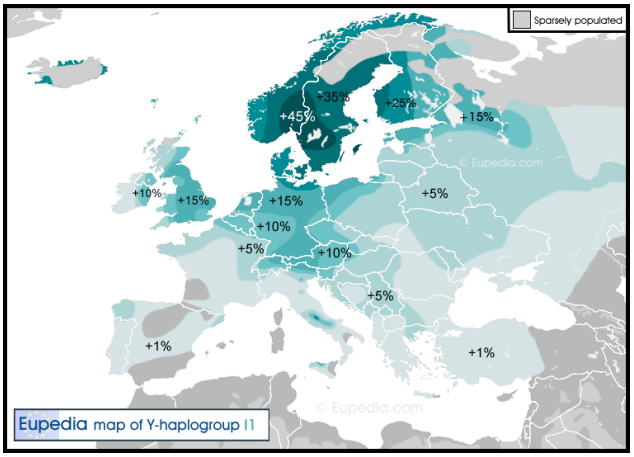
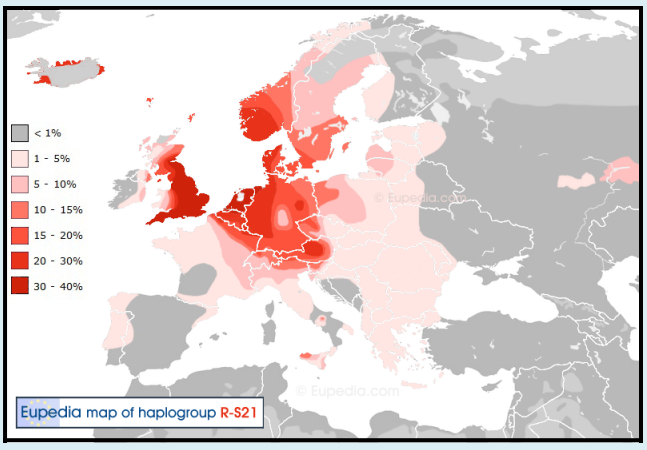
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Post Roman (500AD – 800AD)

Location	Migration / culture	Archaeology	Predicted dominant Y DNA
North - east England	Anglo-Saxon migration into England	Ancient DNA from Saxon burial Norton on Tees (Martiniano 2016)	I1>S107
Hinxton and Oakington, Cambridgeshire	7th Century Post Saxon major changes in Cambridgeshire	Whole genome sequences of Ten ancient samples (Schiffels et al 2015)	All Saxon remains are female samples so no Y DNA Autosomal links to Scotland and Scandinavia - predict R1a and U106 new Y DNA lines
Compact Farm Worth Matravers	7th Century pre-Saxon migration. Major changes in Purbeck to follow with organisation of landscape into estates (Hinton 1995)	Christian cemetery (similar at Tolpuddle Ball, Poundbury and Swanage in south west Dorset) Isolated Durotrigan style burials (Ladle forthcomin)	L21>DF13 sub-clades pre-Saxon arrival
			
After Cunliffe 2013 figs 12.2 and 12.22 DNA maps (I1 above and R1b>U106 below) by Maciamo Hay, Eupedia. www.eupedia.com/europe/Haplogroup_R1b_Y-DNA.shtml			

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References

Allentoft M. E., Sikora M., Sjogren K., Rasmussen S., Rasmussen M., Jesper Stenderup J., Damgaard P. B., Schroeder H., Ahlstro¨m T., Vinner L., Malaspinas A., Margaryan A., Higham T., Chivall D., Lynnerup N., Harvig L., Baron J., Della Casa P., Da˛browski1 P., Duffy P. R.,. Ebel A. V., Epimakhov A., Frei K., Furmanek M., Gralak T., Gromov A., Gronkiewicz S., Grupe G., Hajdu T., Jarysz R., Khartanovich V., Khokhlov A., Kiss V., Kola´rˇ J., Kriiska A., Lasak I., Longhi C., McGlynn G., Merkevicius A., Merkyte I., Metspalu M., Mkrtchyan R., Moiseyev V., Paja L., Pa´lfi G., Pokutta D, Pospieszny L., Price T.D., Saag L., Sablin M., Shishlina N., Smrcˇka V., Soenov V. I., Szevere´nyi V., To´th G., Trifanova S. V., Varul L., Vicze M., Yepiskoposyan L., Zhitenev V., Orlando L., Sicheritz-Ponte´n T., Brunak S., Nielsen R., Kristiansen K., and Willerslev E. (2015) 'Population genomics of Bronze Age Eurasia' *Nature* **522** 167-172 doi:10.1038/nature14507

Austen, J. .H 1856, 'On the Tumuli of the St Aldhelm's Head District' in *Papers Read Before the Purbeck Society 1855*, p33-46 Pub. Purbeck Society, Wareham, 1856

Austen, J. .H 1857 'On the Tumulii of the Chalk Ridge' in *Papers Read Before the Purbeck Society 1856-57*, P110-115 Pub. Purbeck Society, Wareham, 1857

Balaresque, P., Bowden, G.R., Adams, S.M., Leung, H.Y., and King, T.E., 2010 'A Predominantly Neolithic Origin for European Paternal Lineages' *PLoS Biol* **8**(1): e1000285. doi:10.1371/journal.pbio.1000285.

Barrett, J. C., 1980. 'The Pottery of the Later Bronze Age in Lowland England' *Proceedings of the Prehistoric Society*, 46, pp 297-319 doi:10.1017/S0079497X00009403

Barrett, J, Freeman, P and Woodward, 2000. *Cadbury Castle, Somerset: Excavations by Leslie Alcock*. London: English Heritage Archaeological Reports

Barrett, J., C., and , McOmish, D. 2009 'The Early Iron Age on Southern Britain: Recent work at All Cannings Cross, Stanton St Bernard and East Chisenbury, Wiltshire.' in Rouliere-Lambert, M.,-J. et al, 2009) *De l'âge du Bronze à l'âge du Fer en France et en Europe occidentale (Xe - VIIe siècle a.v. J.-C.). La moyenne vallée du Rhône aux âges du Fer.* Actes du XXXe colloque international de l'A.F.E.A.F., co-organisé avec l'A.P.R.A.B. (Saint-Romain-en-Gal, 26 - 28 mai 2006)

p. 565-572 - (27e suppl. à la *R.A.E.*), © S.A.E. et A.F.E.A.F., 2009

Bedault L., 2009 'First reflections on the exploitation of animals in Villeneuve-Saint-Germain society at the end of the early Neolithic in the Paris Basin (France)' In Daniela Hofmann D. and Bickle P., *Creating Communities New Advances in Central European Neolithic* Research Oxbow Books, Oxford.

Bell, M., 1990 *Brean Down Excavations 1983-1987* English Heritage Archaeological Report 15.

Bond, D., 1988. 'Excavation at the North Ring, Mucking, Essex'*, East Anglian Archaeology* 43

Bourgeois, J., and Fontin, D., 2012 Diversity in uniformity, uniformity in diversity: Barrow groups in the Netherlands In Berenger, D., Bourgeois, J., Talon, M., and Wirth, S. *Bodenaltertumer Westfalens* 51, Philipp von Zabern, Darmstadt, 533-551.

Bourgeois, J and Talon, M 2005 *'L'Âge du bronze dans le nord de la France dans son contexte Européen*, *Actes du colloque de Lille, 2000'*, Actes des Congrès nationaux des sociétés historiques et scientifi ques, 125e Lille, Paris: Comité des Travaux Historique et Scientifi ques et l'Association pour la Promotion des Recherches sur l'Âge du Bronze.

Bourgeois J., and Talon M. 2009 From Picardy to Flanders 'Transmanche connections in the Bronze Age' in: Clark P. (Ed.), *Bronze Age Connections. Cultural Contact in Prehistoric Europe*, Oxbow Press, Oxford. 38-59.

© Bob Kenyon June 2016

Bradley, R., 1981 'Various styles of urn – cemeteries and settlement in southern England *c* 1400-1000bc', in R. Chapman, I. Kinnes, and K. Randsborg (eds.), *The archaeology of death,* New Directions in Archaeology (Cambridge), 93-104.

Bradley, R., Haselgrove, C., Vander Linden, M., Webley, L. 2016 *The Later Prehistory of North-West Europe The Evidence of Development-Led Fieldwork* Oxford University Press

Brailsford, J.,1948 'Excavations at Little Woodbury, Wiltshire. Part 2 The Pottery' *Proceedings of the Prehistoric Society* Volume 14, pp 1-23

Brandt, G., W. Haak, C. J. Adler, C. Roth, A. Szécsényi-Nagy, S. Karimnia, S. Möller-Rieker, H. Meller, R. Ganslmeier, S. Friederich, V. Dresely, N. Nicklisch, J. K. Pickrell, F. Sirocko, D. Reich, A. Cooper and K. W. Alt 2013. 'Ancient DNA reveals key stages in the formation of central European mitochondrial genetic diversity.' *Science* **342**, 257-261.

Brandt, G., A. Szecsenyi-Nagy, C. Roth, K. W. Alt and W. Haak 2014 'Human paleogenetics of Europe - The known knowns and the known unknowns.' Journal of Human Evolution 79 73-92. DOI: 10.1016/j.jhevol.2014.06.017

Brewster, T. C. M. 1963 *The Excavation of Staple* Howe East Riding Archaeological Research Committee

Brotherton, P., Haak, W., Templeton, J., Brandt, G., Soubrier, J., Adler, C. J., Richards, S.M., Sarkissian, C.D., Ganslmeier, R., Friederich, S., Dreseley, V., van Oven, M., Kenyon, R., Van der Hoek, M.B., Korlach, J., Luong, K., Ho, S.Y.W., Quintana-Murci, L., Behar, D.M., Meller, H., Alt, K.W., Cooper, A., and The Genographic Consortium, 2013 'Neolithic mitochondrial haplogroup H genomes and the genetic origins of Europeans' *Nature Communications* **4**, article number 1764 doi:10.1038/ncomms 2656

Brück, J., 2007 'The character of Late Bronze Age settlement in southern Britain' in Haselgrove C and Pope R Eds. *The Earlier Iron Age in Britain and the Near Continent*. Oxbow Books, Oxford, UK.

Brun, P., 1993 'East-West Relations in the Paris basin during the Late Bronze Age' in *Trade and Exchange in Prehistoric Europe* Oxbow Monograph 33), Scarre C and F. Healy F,. eds., Oxford, pp. 171–182

Cassidy, L. M. Martiniano, R. et al. (2015) 'Neolithic and Bronze Age migration to Ireland and establishment of the insular Atlantic genome' *PNAS*, Published online before print December 28, 2015

Cleal, R., and Pollard, J., 2012 'The Revenge of the Native: monuments, material culture, burial and other practices in the third quarter of the 3rd millennium BC in Wessex' in Allen, M.J., Gardiner, J., and Sheridan, A., 2012, 317-332.

Calkin, J.B., 1964 'The Bournemouth Area in the Middle and Late Bronze Age, with the "Deverel-Rimbury" Problem Reconsidered', *The Archaeological Journal* **119,** 1-65.

Cassidy, L. M. et al. (2015), Neolithic and Bronze Age migration to Ireland and establishment of the insular Atlantic genome, *PNAS*, Published online before print December 28, 2015

Cerdá J. F., Catlan, M. P., et al., 1986 *Historia de España I: Prehistoria*, Javier (Madrid)

Clarke, D. L., 1970 *The Beaker Pottery of Great Britain and Ireland Vol. 1* Cambridge University Press

Cunliffe, B., 1978 *Hengistbury Head* (London)

–, 2000 *The Danebury Environs Programme – The Prehistory of a Wessex Landscape* **1** (Oxford) English Heritage and Oxford University Committee for Archaeology Monograph Number 48.

© Bob Kenyon June 2016

—, 2010 ‘Celticization from the West: The Contribution of Archaeology’ in Cunliffe, B., and Koch, J.T., 2010, 13-38.

—, 2013 *Britain Begins* (Oxford).

Cunliffe, B., and Koch, J.T., 2010 *Celtic from the West: Alternative Perspectives from Archaeology, Genetics, Language and Literature* (Oxford).

Cunliffe, B., and Phillipson, D.W., 1968 ‘Excavations at Eldon’s Seat, Encombe, Dorset’, *Proceedings of the Prehistoric Society* **34** 191-237.

Cunliffe, B., 2000 *The Danebury Environs Programme – Volume 1 Introduction* (Oxford) English Heritage and Oxford University Committee for Archaeology Monograph Number 48.

Cunliffe, B., and Poole, C., 2000 *The Danebury Environs Programme – The Prehistory of a Wessex Landscape* **2** (Oxford) English Heritage and Oxford University Committee for Archaeology Monograph Number 49.

Curtis N. G. W. and Wilkin N. C. A., 2012 ‘The Regionality of Beakers and Bodies in the Chalcolithic of North-East Scotland’, in Allen, M.J., Gardiner, J, & Sheridan, A. (eds) *Is there a British Chalcolithic? People, place and polity in the later 3rd millennium*, Prehistoric Society Research Paper 4 (2012), pp. 237-256

Davis, O., 2011 'A Re-examination of Three Wessex-type Sites: Little Woodbury, Gussage All Saints, and Winnall Down' in Moore and Armada 2011.

De Mulder, G., and Bourgeois, J., 2011 'Shifting centres of Power and Changing Elite Symbolism in the Scheldt Fluvial Basin during the Late Bronze Age and Iron Age' in Moore and Armada 2011

Field, D., 2008 *Use of Land in Central Southern England during the Neolithic and Early Bronze Age,* BAR British Series 458.

Fitzpatrick, A. P., 2013 *The Amesbury Archer and the Boscombe Bowmen* Wessex Archaeology Limited (Salisbury)

Freidin, 1982, *The Early Iron Age in the Paris Basin* BAR monograph S131, BAR (Oxford)

Fu, Q., Rudan, P., Paabo, and S., Krause, J., 2012 ‘Complete Mitochondrial Genomes Reveal Neolithic Expansion into Europe’ *PLoS ONE* **7(3)**: e32473. doi:10.1371/ journal.pone.0032473

Fu. Q. et al. 2016, 'The genetic history of Ice Age Europe' *Nature*, published online 2 May 2016 DOI: 10.1038/nature17993

Graham, A.H., Hinton, D.A., and Peacock, D.P.S., 2002 ‘The Excavation of an Iron Age and Romano-British Settlement in Quarry Field, South of Compact Farm, Worth Matravers, Dorset’ in D.A. Hinton (ed.), *Purbeck Papers,* University of Southampton Department of Archaeology Monograph Number 4, 1-83.

Haak, W.,. Lazaridis, I., Patterson, N., Rohland, N,. Mallick, S., Llamas, B.,. Brandt, G., Nordenfelt, S., Harney, E., Stewardson, K., Fu, Q., Mittnik, A., Bánffy, E., Economou, C.,Francken, M., Friederich, S., Pena, R.G., Hallgren, F., Khartanovich, V., Khokhlov, A., Kunst, M., Kuznetsov, P., Meller, H., Mochalov, O., Moiseyev, V., Nicklisch, N., Pichler, S. L., Risch, R., Guerra, M. A. R., Roth, C., Szécsényi-Nagy, A., Wahl, J., M. Meyer, M., Krause, J., Brown, D., Anthony, D., Cooper, A., Werner Alt K. W., and Reich D.(2015). 'Massive migration from the steppe is a source for Indo-European languages in Europe' *Nature* **522**, 207-211 doi:10.1038/nature14317

Haselgove C., and Moore T., (eds) 2007 *The Later Iron Age in Britain and* Beyond Oxbow Books, Oxford

Hill J. D., 2007 'The Dynamics of Social Change in Later Iron Age eastern and south-eastern England c300BC-AD43' in Haselgove C., and Moore T.

© Bob Kenyon June 2016

Hinton, D. A., 1995 'Some Anglo-Saxon charters and estates in south-east Dorset', *Proceedings of the Dorset Natural History and Archaeology Society* Vol 116 11-20.

Hofmanová, Z., et al 2016 'Early farmers from across Europe directly descended from Neolithic' Published online before print June 6, 2016, doi: 10.1073/pnas.1523951113
PNAS June 6, 2016

Huth, C., 2000 'Quality and Quantity in Late Bronze Age and Early Iron Age Exchange Systems' in Giumlia-Mair, A., (ed.) *Ancient Metalurgy between Oriental Alps and Pannonian Plain* 25-39. Trieste 2000

Jackson, R., 2015 *Huntsman s Quarry, Kemerton: A Late Bronze Age settlement and landscape in Worcestershire* Oxbow Books (Oxford, UK)

Jones, A. M 2015 'New evidence from Tremough, Cornwall' in Jones A. M., Gossip J., Quinnell H., (eds) *Settlement and Metalworking in the Middle Bronze Age and Beyond* Sidestone Press

Jones, A.M., and Kirkham, G., 2011 *Beyond the Core: Reflections on Regionality in Prehistory* (Oxford).

Jones E. R., Gonzalez-Fortes G., Connell S., Siska V., Eriksson A., Martiniano R., McLaughlin R. L., Llorente M. G., Cassidy L. M., Gamba C., Meshveliani T., Bar-Yose O., Mu¨ller W., Belfer-Cohen A., Matskevich Z., Jakeli N, Higham T. F. G., Currat M., Lordkipanidze D., Hofreiter M., Manica A., Pinhasi R., and Bradley D. G. 2015 'Upper Palaeolithic genomes reveal deep roots of modern Eurasians' *Nature Communications* **6** article 8912 DOI: 10.1038/ncomms9912

Lacan, M. 2011, 'La Néolithisation du bassin méditerranéen : Apports de l'ADN ancien' thesis Université Toulouse III Paul Sabatier, presented 12 December 2011

Ladle, L., 1988 'An Axe from Worth Matravers', *Proceedings of the Dorset Natural History and Archaeology Society* **110**, 142.

Ladle L., 2012 *Excavations at Bestwall Quarry, Wareham 1992-2005 Volume 2 The Iron Age and Later Landscape,* Dorset Natural History and Archaeological Society Monograph Series 20.

Ladle L., forthcoming *Excavations at compact Farm, Worth Matravers 2010-2012,* Dorset Natural History and Archaeological Society Monograph Series.

Ladle, L., and Woodward, A., 2009 *Excavations at Bestwall Quarry, Wareham 1992-2005 Volume 1 The Prehistoric Landscape,* Dorset Natural History and Archaeological Society Monograph Series 19.

Lazaridis, I. et al. (2016), The genetic structure of the world's first farmers, pre-print online June 16, 2016 doi: http://dx.doi.org/10.1101/059311

Lee, E. J., et Al. 2012 'Emerging Genetic Patterns of the European Neolithic: Perspectives From a Late Neolithic Bell Beaker Burial Site in Germany' *American Journal of Physical Antropology* 148:571–579

Longworth, I. H., 1984, *Collared Urns of the Bronze Age in great Britain and Ireland* Cambridge University Press

Mallory, J.P., 2013 *The Origins of the Irish* (London)

Manco, J., 2013 *Ancestral Journeys: The Peopling of Europe from the First Venturers to the Vikings* (London).

Marcigny, C. 2012 'Rythmes et natures des occupations protohistoriques en Normandie (IIIe millénaire - fin de l'âge du Fer)' in Honegger, M., et Mordant, C. (éds.) 2012*, L'Homme au bord de l'eau. Archéologie des zones littorales du Néolithique à la Protohistoire* (actes du 135e Congrès national des sociétés historiques et scientifiques « Paysages », Neuchâtel, 6-11 avril 2010,

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session de Pré- et Protohistoire), Lausanne et Paris, Cahiers d'archéologie romande et Éd. du CTHS (Cahiers d'archéologie romande, 132 et Documents préhistoriques, 30),

Marcigny, C., Bourgeois, J., and Talon, M. 2015 'Cultural Geographies, Socio-economic Complexes and Territories along the Channel/Manche – Southern North Sea Littoral (Belgium, England, France)' in Eds Suchowska-Ducke, P., Scott Reiter, S., Vandkilde, H. Forging Identities. *The Mobility of Culture in Bronze Age Europe: Volume 2*, BAR S2772 British Archaeological Reports

Martin, A., 2011 'The Alien Within: the forgotten sub-cultures of Early Bronze Age Wessex' in Jones, A.M., and Kirkham, G., 2011, 63-74.

Martiniano, R. et al 2016, 'Genomic signals of migration and continuity in Britain before the Anglo-Saxons' *Nature Communications*, 7: 10326

Moore, T., and Armada, X-L., 2011 *Atlantic Europe in the First Millenium BC* Oxford University Press

Mordant, C., 2013' The Bronze Age in France' in Fokkens, H., and Harding, A., (eds) *The Oxford Handbook of the European Bronze Age* Oxford University press

Myres, N.M., et al., 2011 'A major Y-chromosome Haplogroup R1b Holocene Era Founder Effect in Central and Western Europe', *European Journal of Human Genetics* **19**, 95–101.

Needham, S., P., 2007 '800BC: The Great Divide' in Haselgrove, C., and Pope, R., (eds.) 2007 *The Earlier Iron Age in Britain and the Near Continent*. Oxbow Books, Oxford, UK.

Needham, S. and Spence, T., 1996 *Refuse and Disposal at Area 16 East*, *Runnymede. Runnymede Bridge Research Excavations, Volume 2* British Museum Press

O'Connor B., 2007 'Llyn Fawr metalwork in Britain: a review' in Haselgrove C and Pope R (eds.) *The Earlier Iron Age in Britain and the Near Continent*. Oxbow Books, Oxford, UK.

Olalde, I. et al. 2015 'A common genetic origin for early farmers from Mediterranean Cardial and Central European LBK cultures' *Molecular Biology and Evolution*, online 2 September 2015

Pala, M., Soares, P., and Richards, M. B. 2016 'Archaeogenetic and palaeogenetic evidence for Metal Age mobility in Europe' In Cunliffe B., and Koch J. T. (Eds) *Celtic from the West 3: Atlantic Europe in the Metal Ages — questions of shared language*. Oxbow Books, Oxford, UK

Papworth, M., 2011 *The Search for the Durotriges Dorset and the West Country in the Late Iron Age* (Stroud)

Piggot, S., 1938 'The Early Bronze Age in Wessex' *Proceedings of the Prehistoric Society **04.***

Posth, C. et al.2016 'Pleistocene mitochondrial genomes suggest a single major dispersal of Non-Africans and a Late Glacial population turnover in Europe'. *Current Biol*. 26, 827−833.

Rivollat, M., Mendisco, F., et al, 2015 'When the Waves of European Neolithization Met: First Paleogenetic Evidence from Early Farmers in the Southern Paris Basin' *PLoS ONE* 10(4): e0125521

Roberts, B. W, Broughton, D., Dinwiddy, M., Doshi, N., Fitzpatrick, A. P., Hook, D., Meeks, N., Mongiatti, A., Woodward, A., Woodward, P. 2015 'Collapsing Commodities or lavish offerings? Understanding massive metalwork deposition at Langton Matravers, Dorset during the Bronze Age-Iron Age transition'. *Oxford Journal of* Archaeology 34(4) 365–395 2015

Sandars, N. K., 1957 *Bronze Age Cultures in France The Later Phases from the Thirteenth to Seventh Century BC* Cambridge University Press

© Bob Kenyon June 2016

Schiffels, S.Haak, W., et al (2016),' Iron Age and Anglo-Saxon genomes from East England reveal British migration history', *Nature Communications*, 7: 10408.

Sharples, N. M., 1991 *Maiden Castle* Batsford (London)

Sharples, N. M., 2010 *Social Relations in later Prehistory* Oxford University Press

Szécsényi-Nagy, A., et al. 2015,' Tracing the genetic origin of Europe's first farmers reveals insights into their social organization', *Proceedings of the Royal Society B*, vol. 282, no. 1805, 20150339

Tabor, R., 2008, 'Woolston Manor Farm, North Cadbury: an outline report of fieldwork in 2006-7 by the South Cadbury Environs Project', *Proc Somerset Archaeol Natur Hist Soc* **151**, 221–2

– 2008a *Cadbury Castle The Hillfort and Landscapes* The History Press (Stroud, UK)

Thomas, J. 2005 'Ceremonies of the Horsemen? From Megalithic Tombs to Beaker Burials in Prehistoric Europe', *Bell Beakers in the Iberian Peninsula and their European context*, ed. M. A. Rojo- Guerra, 123–35. Valladolid, Junta de Castilla y León.

Tubb, P., 2011 *The LBA/EIA Transition in the Vale of Pewsey, Wiltshire*. BAR British Series 543. Oxford UK.

Turnbull, A. L., 1984 *From Bronze to Iron - The Occurrence of Iron in the British Later Bronze Age* Thesis submitted in partial fulfilment of the Degree of PhD University of Edinburgh

Waddington, K. and Sharples, N., 2011 *The excavations at Whitchurch 2006-2009 An Interim Report* Cardiff Studies in Archaeology Specialist Report 31

Wheeler R. E. M.,1943 *Maiden Castle Dorset* Report of the Research Committee of the Society of Antiquaries of London No. XII Oxford University Press

White, D.A., 1982 *The Bronze Age Cremation Cemeteries at Simons Ground, Dorset,* Dorset Natural History and Archaeological Society Monograph Series 3.

Whittle, A., Healy, F., and Bayliss, A., 2011 *Gathering Time Dating the Early Neolithic Enclosures of southern Britain and Ireland Volumes 1 and 2* (Oxford).

Whitley, M., 1943 'Excavations at Chalbury Camp, Dorset 1939', *Antiquaries Journal* 23, 98-121.

Woodward, A, 1990 'The Bronze Age Pottery', in Bell M. (ed), *Brean Down: excavations 1983-1987*, English Heritage Archaeology Report, 15, 121- 145, London

– 2000 *British Barrows: A Matter of Life and Death*. (Stroud).

– 2009 'Chapter 11: 'Interpretation and Discussion' in Ladle, L., and Woodward, A., 2009, 349-381.

Woodward, A. and Jackson, R. 2005 'Prehistoric Pottery'. In R. Jackson, *Huntsman's Quarry, Kemerton, Worcestershire: Late Bronze Age Settlement and Landscape*, 47-64. Unpublished Worcestershire County Council Historic Environment and Archaeology Service Report 1302.

Woodward, P.J., 1991 *The South Dorset Ridgeway Survey and Excavations 1977-84,* Dorset Natural History and Archaeological Society Monograph Series 8.

Yates, D.T., 2007 *Land Power and Prestige - Bronze Age Field Systems in Southern England* (Oxford).

– 2007a 'Chapter 5: Bronze Age Field Systems and the English Channel-North Sea Cultural Region' in A. Fleming, and R. Hingley (eds.), *Prehistoric and Roman Landscapes: Landscape History after Hoskins* (Macclesfield), 57-69.

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