The Megalithic Tombs of Ireland

The name megalithic tombs came from the Greek words; megas and great; lithos, which means stone. In the middle of the fourth millennium B.C., agriculture changed the culture of the people of Ireland. These people lived mainly along the coast or along rivers before agriculture and lived a hunter-gatherer lifestyle. This means their lives were based on hunting and food gathering. With this change of agriculture, came the practice of collective burials in megalithic tombs (O Nuallain pg. 7). The megalithic tombs of Ireland vary in type, have DNA and anthropological evidence, but also show social diversity and stratification.

There are roughly 1200 megalithic tombs within Ireland along with different types of megalithic tombs. These tombs within Ireland fall into four distinctive groups varying in their architecture, allocation patterns, and connected artefacts. The different types of tombs are court-tombs, portal-tombs, passage tombs and wedge-tombs (O Nuallain pg. 7).

Court-tombs are the earliest megalithic monuments built in Ireland and are found in the Northern half of Ireland. There have been three hundred and twenty-nine court-tombs found within Ireland. Court-tombs have many other forms, vary in shape, and are large complex constructions. A unique characteristic is the ceremony courtyard, which is in front of a burial tomb. The courtyard is usually in the eastern part but sometimes there are burial chambers and courts at both ends of the monument. (O Nuallain pg.7).

A type of tomb that is associated with court tombs are portal-tombs (O Nuallain pg. 9).Portal-tombs are mostly in the Northern half of Ireland but there are some that are on the east coast. This region is known to have late Neolithic single burials. Inside portal tombs are several single-chambered monuments with sometimes having a stone for a door. These portal tombs are usually poorly preserved and in some cases, no evidence has survived (O Nuallain pg. 9).

Another tomb that was important in the spread of megalithic tombs across Europe is passage-tombs. Passage tombs are also found in the Northern half of Ireland but there are some found in south Leinster and north Munster (O Nuallain pg. 11). Passage-tombs are circular in form and possibly be low and narrow. While the passage is low and narrow, the chamber is high and maybe a different shape like round or oval. There may also be side or end chambers off the main chamber. In Ireland, a cruciform plan within tombs is normal but there are more complicated types (O Nuallain pg. 10).

The most well-known passage-tomb were those discovered in eastern Ireland, at Newgrange and Knowth in the Boyne Valley. The greatest western passage-tomb instance found in Europe is at Ballycarty. Ballycarty’s passage tombs are significant from a paleontological perspective, many loose fossils were found within the cairn fill that is above the passage tomb and inside the funeral cavity itself. The loose fossils being there signifies that the builders of the tomb held the items to have some type of meaning. These loose fossils are the most primitive model of remains being used as burial items, and precede similar circumstances in southern England (Wyse; Connolly 139).

The final group of tomb builders to arrive in Ireland built tombs that are simple. Some of the

wedge-type tombs are found within the southwest of Ireland. This region was not used earlier tomb builders. Three hundred and eighty-seven have been found in Ireland but only nineteen have been excavated. The wedge-tomb people practised communal burial. Wedge-tombs are made of a small main chamber, often with a small entryway at the front and sometimes a small chamber at the back. Some of the sites had little in finds and eight tombs had no primary pottery. From the eight sites the researchers did find beaker ware with barbed and tanged arrowheads. Beaker was the pottery found in the tombs, but occasionally there were Neolithic sherds signifying an overlap with previous cultures (O Nuallain pg. 13).

The megaliths from Iberia to southern Scandinavia, Britain, and Ireland are similar in the building and design meaning there is no question that there had to be contacted within the region (Sánchez-Quinto; Federico, et al. 9469). Interregional communication has also been confirmed through the findings by researchers of domestic supplies, raw materials, and artefacts, perhaps suggesting communal social and cultural structures. Several of the megaliths were found to have been used for communal burial. Researchers are unsure which members of the societies were laid to rest within the tombs. (Sánchez-Quinto; Federico, et al. 9470).

Some of the groupings include males, females, adolescents, and kids, suggesting maybe family burials. Some of the tombs have badly preserved remains and also show secondary use in later times, making the tomb evaluations difficult. The use of megaliths as funeral grounds for the society would suggest some mutual beliefs over vast geographic regions. However, it has been deliberated that the massive burials and related physical culture display the appearance of social diversity or stratification, with the memorials possibly representing status and or land indicators (Sánchez-Quinto; Federico, et al. 9470).

Some researchers theorize that the individuals buried in the megalithic constructions were relatives. Genomic information is essential to give greater evidence on the family relations and the social dynamics. Some of the genomic information has been available from a few individuals from the megalithic tombs but there are things that are unclear. The dynamics of the customs and culture of their society's funerals are uncertain, as well as their population record that used the funeral structures. (Sánchez-Quinto; Federico, et al. 9470).

According to the present study, the genetic structure was investigated along with demographic similarities of individuals buried inside megaliths to understand the funeral megaliths, the social dynamics of the individuals buried in the memorials, and their demographic story. They studied and created the genome sequence information from 24 individuals from five megalith funeral locations in Ireland. The sites studied were Orkney Isles, and the Island of Gotland in the Baltic Sea dated ca.3800 and 2600 cal. BCE includes extensive models from the megalithic custom in northern Europe. This present study also included three individuals from non-megaliths from Scotland (3370-3100 cal. BCE) and the Czech Republic (4825-4555 cal. BCE) (Sánchez-Quinto; Federico, et al. 9470).

The individuals studied were all radiocarbon-dated to be between 4825 and 2580 cal. BCE. Their data was compared to the previously created genetic information from 36 individuals from 16 megalithic locations, as well as with farmers that are not from the megalithic culture, to examine the populace past of the individuals entombed in the megaliths (Sánchez-Quinto; Federico, et al. 9470). The individuals entombed in the megaliths from Isles and Scandinavia, displayed ancestry similarity to other modern farmers, with a greater part of their lineage linked to early Neolithic farmers and a partial admixture factor related to European Mesolithic HGs

(Sánchez-Quinto; Federico, et al. 9470).

The researchers took it a step further to examine the demographic past of the individuals in the megaliths, and they explored the genetic similarities between sets of individuals and groupings, using an f3 outgroup test for individuals and groups in megalithic or non-megalithic setting, as well as among individuals from the Atlantic coast and inland Neolithic locations. What the researchers found was that there is genetic relations between individuals from a similar geographic area and era. The researchers also found a rare relationship among western European Neolithic groups to the exclusion of central European Neolithic groups, as well as a link between Isles and the Iberian populace. These outcomes were not determined by larger levels of HG lineage among the populaces at the borders of the Neolithic growth (Sánchez-Quinto; Federico, et al. 9470).

According to the researchers, they also have discovered an important specific farmer genetic similarity between Isles Neolithic populace and Scandinavian populace to the exclusion of central European farmers. This analysis is compatible with an extended migration of the farming groups along the European Atlantic coast. Researchers have proposed this theory because of the archaeological record. This study has found more males than females were entombed in Isles megaliths (31 of 42 randomly sampled individuals) and at the Primrose megalith (9 of 11). There are other tombs where this pattern is different with at least four individuals and these tombs include Ansarve (6 of 9), Gokhelm (1 of 4), La Mina (2 of 4), Holm of Papa Westray (2 of 4), and Isbister (8 of 10), nor did non-megalithic tombs from Isles (15) (non-megalithic tombs: 6 of 10, cave burials: 10 of 15; both non-megalithic and cave burials: 16 of 25). The data shows from this study that genetic information from all the individuals from the megaliths that the data implies a greater male-to-female ratio in these funeral chambers (41 of 60), though the trend is comparable (but not substantial) for non-megalithic entombments (Sánchez-Quinto; Federico, et al. 9470).

In this study, the researchers found greater macrohaplogroup mtDNA diversity than Y-chromosomal (YDNA) diversity. The mtDNA lineages from megalithic funerals harbor haplogroups K, H, HV, V, U5b, T, and J (and others), most of the males buried within the megaliths belong to the YDNA haplogroup I, and more precisely to the I2a sublineage, which goes to a period of the most mutual ancestor of 1500 BCE. This relationship of uniparental marker diversity is not only found in individuals buried in megaliths but also with farmer groups from the fourth millennium BCE, and they show similar patterns of uniparental marker diversity (Sánchez-Quinto; Federico, et al. 9470).

According to this study, there was a high frequency of the HG-derived I2a male lineages in the megaliths as well as non-megalith individuals suggesting that a male-based admixture procedure between the farmer and the HG groups, the researchers are unsure when this admixture occurred. The researchers evaluated the similarity of all the individuals in the megaliths with sufficient genetic information, to an Early Neolithic farmer using the X chromosome and G-4 statistics or a HG ancestry on the autosomes. The researchers found a greater level of HG admixture on the autosomes than on the X chromosome indicating a larger genetic influence of male HGs than female HGs to these individuals. This analysis signifies a HG male sex bias admixture (Sánchez-Quinto; Federico, et al. 9470).

In general, the researchers found that megalith groups do not have greater levels of HG ancestry on the autosomes compared to the X chromosome. The evaluated Scottish MN

farmers indicated an HG male-sex biased admixture in the previous past. The researched Scandinavian individuals (Ansarve and Gokhen) showed an admixture for the X chromosomes and the autosomes, this shows a more current admixture with HGs in northern Europe. When the research is considered together, it looks as if there's social dynamics between HGs and Neolithic farmer groups. The DNA shows genetic admixture with HGs, varied in other geographic locations, an examination with a blend of earlier male sex bias admixture results emerging in the region and current area encounters with HG groups with smaller sex-biased admixture (Sánchez-Quinto; Federico, et al. 9470).

What this evidence suggests is that the groups that built and used the megalithic graves were settled and stratified, and perhaps not secluded farmer cultures. The genetic link from the individuals studied from Primrose Grange and Carrowmore burials were only 2 km away from each other. The individuals were also in transgenerational patrilineal organized cultures that may have extended geographically, and associated to the social kinetics of the group. During the Neolithic, the development of patrilineal kin groups and intergroup competition may explain the concluded Y-chromosome and the limited access understood today in European populations (Sánchez-Quinto; Federico, et al. 9473).

A key theme topic relating to megalithic burials relates to the character of the societies that built and used these sites for burial rituals. The characteristic of certain paternal lineages in the megaliths, more males than females with some megaliths, and their kinship relationships imply that individuals buried in the megalithic graves belonged to patrilineal parts of the societies rather than a small chance model from a bigger Neolithic farmer population living nearby. The sex proportion in the Irish megaliths also proves this connection. If one of the main purposes of the megaliths was to hold the bodies of the dead of a patrilineal part, this would clarify the greater number of males within the graves. However, what the research has found was that three out of five kinship relationships were female, and this means that female was not excluded from burial. With the examination of the paternal connection through time at the Gotlandic Ansarve megaliths and at the Irish megaliths, the analysis shows that certain family groups used these megaliths for funeral and other memorial practices. These patterns may be unique to the Primrose, Carrowmore, and Ansarve funerals, and analyses of other megaliths are essential to give us more information that can broaden our perspective of the social association of the Neolithic period (Sánchez-Quinto; Federico, et al. 9473).

The megalithic tombs show a change in Ireland's culture from hunter-gather to agriculture. This change led the family groups to be settled and stratified but also to the cultural collective practice of megalithic tombs. The researchers have also found that there is genetic relations between individuals from comparable geographic area and era.The megalithic tombs of Ireland vary in type, have DNA and anthropological evidence, but also show combined beliefs over immense geographic locations along with social diversity and stratification.

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