

THE FOOD OF THE PREHISTORIC CELTS

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Introduction

In any discussion concerning the remote past especially for people and places outside the classical world there is a preconceived notion that a mean subsistence regime was in place until the gift of civilisation was made, in the case of the Celts, in the form of conquest by the Romans. After this time, so the notion obtains, great strides were made in every aspect of life, statehood, social organisation, economic strategy, technology and agriculture. To a very large extent such a notion depends upon a preferred perception. It is quite true to say that the conquest of the Celts was achieved primarily because they had not achieved the state of a nation and, therefore, fell piecemeal fashion. That they were on the threshold of nationhood in the middle of the first century BC was demonstrated by the combined forces led by Vercingetorix at the battle of Alesia. Had the result been different, the identification of all the different tribes into a Celtic nation would have undoubtedly followed. This notwithstanding, the Caesarian Roman conquest of Gaul was not easily achieved and Caesar's forays into Britain were, in reality, failures rather than successes despite his political rewards for venturing beyond the Ocean into the unknown. He was effectively outmanoeuvred and outgeneralled by Cassivellaunus during the campaigns of 55 and 54 BC and was ultimately fortunate to return to the continent relatively unscathed. However, the fact that the Celts were ultimately defeated and subsequently Romanised, combined with the lack of any literary record from the Celtic side, has led to an overall perception of history beginning with the Romans and all that went before was significantly inferior.

This is further compounded by selective quotations from the classical literature making the Celt into some kind of swaggering ill-mannered unreliable boozy braggart. Undoubtedly there are such people in every nation in every period but without media attention they are likely to be entirely non-representative. In terms of social organisation in the first millennium BC the most probable Celtic system was some form of warrior aristocracy, perhaps akin to that of Homeric Greece at broadly the same time. For the Celts we have no real evidence for any major development in organisation commensurate to the emergence of the city state. Nevertheless a warrior aristocracy can equally well be described as a military oligarchy. What is of particular interest is the nature of the society which can sustain a warrior aristocracy. Inevitably it is pyramidal in form with a large base of a working population, slave and free, with status limiting numbers in the upper layers until the peak of the military itself. For the aristocracy to succeed in however small a unit area, the rest of the layered population must also be successful. In turn, the basic economy itself must also be sound and successful.

In the context of all societies prior to the Industrial Revolution, with minor exceptions, the basic economy was agriculture. To consider the food of the prehistoric Celts it is, therefore, necessary to explore the nature of the agricultural economy both in the sense of its technology and its products. With but a few classical references which necessarily refer to the differences rather than the similarities, the basic information is drawn from the archaeological data recovered by excavation.

Ards and ploughs

Central to the technology of agriculture is the plough or ard. The difference between the two is focussed upon the mouldboard. The plough is fitted with a vertically set curved board in metal or wood which turns the soil over and buries the surface debris. The ard simply stirs the soil in the horizontal mode. In Britain the introduction of a mouldboard seems to be no earlier than the tenth century AD. Even today the ard as the primary cultivation tool is more widespread globally than the turn-over plough. The advantages of the ard lie in its relatively limited depth of cultivation, c.200 mm, its efficiency in stirring a good tilth without burying all the organic material which both holds the soil together counteracting major erosion episodes and provides steady release of nitrogen for plant take up given the presence of the right micro-organisms in the soil body. In Virgil's *Georgics* there is a description of an ard, its beam bent by 'main force' as it grew in the woodlands and fitted with two ears (*binae aures*) which push the soil away from the ard forming furrows. These 'ears' are critical in shallow soils to increase the soil depth for better plant rooting. Such ards can be seen throughout Mediterranean countries to this day. For north-west Europe, however, the ard evidence shows no indication of these 'ears' at all.

The evidence comprises iconography in the form of rock carvings as well as the ards themselves recovered from peat bogs mainly in Denmark. The major concentration of rock carvings is to be found in the region of Bohuslan in western Sweden. The carvings, undoubtedly ritual in inspiration, provide a quite remarkable insight into both the complexity of the ards themselves and into agricultural practice. The main representations depict the ard as a curved main beam with a share fitted through a joint in its foot, the end of the beam being attached to a yoke set across the horns of a pair of cattle, often cows, occasionally bulls. From Donneruplund in Denmark an actual ard was recovered from a peat bog which provided all the detail of the implement.

The share arrangement comprised a pointed stick set upon a heart shaped undershare and held in line with two vertical spigots set into the face of the undershare and a handle or stilt all of which pieces passed through a mortice cut into the foot of the main beam and held in place by wedges. Its profile form agrees exactly with the rock carvings. Replicas of this ard constructed and tested by the writer have shown it to be an extremely efficient tool indeed being quite capable of dealing with both heavy and light soils. Some carvings show a vertical bar set between the beam and behind the main share which in all probability is a coulter or vertical knife to cut through the vegetation in the soil although it could also be a strengthening device or a method of altering the angle of penetration. The role of the pointed stick is simply to hold the ard in the soil matrix; the heart shaped undershare lifts the soil which then flows past the foot of the main beam. It is unfortunate that these ards have been dubbed 'stick ploughs' which altogether belie their complexity and efficiency. A recently discovered rock carving in Krokholmen in Sweden dated to the early Iron Age shows a double span of cattle pulling such an ard. This idea of increasing the traction power by adding further spans of cattle is normally attributed to the early medieval period.

A second type of ard is also depicted in the rock carvings in Sweden, southern France and northern Italy. This type has a share set at a much steeper angle to the soil surface. Archaeological excavations of prehistoric field areas often reveal scores in the underlying rock surface which are commonly described as ard marks. Usually the scores are clearly defined and extend some three to four metres in length with an area of major disturbance at the end of the score. Repeated trials with the Donnerupland type ard have failed to reproduce this type of mark or any other mark in the underlying rock. In a real sense it would be surprising if it did since it is carefully designed to till just the soil body. This second type of ard, however, given its steeper angle of penetration does

reproduce these short scores. The explanation is offered in the rock carving of an agricultural scene in the Val Camonic in northern Italy. In this such an ard is depicted with a further figure following behind wielding a hoe as if breaking up clods of earth. In addition, this type of ard was still in use in north-west Spain in this century. Called *'el cambelo'* it is used specifically to bring into cultivation old fallow land or land never previously cultivated. Shaped in the form of a great hook jointed to a straight beam fitted with grab handles for the ploughman it is attached to a pair of yoked bulls, the point of the hook just set into the ground surface. Goads applied simultaneously to the bulls force them forward. The ploughman simply hangs onto the handles. The hook is driven deep into the soil and dragged forward, finally coming to a shuddering halt after two or three metres blocked up with soil and matted vegetation. Then the hook is wrestled out of the ground and the process repeated while behind the exercise labourers smash the uprooted soil with mattock hoes into a crude tilth ready to be ard ploughed in the normal way. Examination of the trace evidence left by *'el cambelo'* show it to be exactly similar to the prehistoric *'ardmarks'* recovered by excavation.

A third type of ard is evidenced both in a rock carving from Littleby in Sweden and by an actual ard recovered from a peat bog in Hvorslev in Denmark. It is perhaps the most significant agricultural scene of all since it shows the ritual of spring sowing. The ard is made from the curving bough of a tree forming the beam with the share fashioned from the trunk. A stilt or handle is fitted to the rear of the share which is virtually horizontal. Beneath the scene are shown horizontal lines depicting seed drills while the ploughman has what is thought to be a bag of seed in his left hand. Trials with a replica ard have demonstrated that all it can do is draw a shallow furrow or drill in a prepared tilth.

The implications of this carving and the ard are extremely significant for understanding the sowing process in north-west Europe. It would seem that seed was sown into seed drills and not broadcast in the traditionally accepted manner or according to Roman practice. This means that the germinability of the seed determines the potential output rather than a standard loss of 74% of the seed grain. In simple economic terms a reduced input will lead to an increased output. In practical terms it allows for crop management during the growing season, significantly hoeing the weeds between the drills, with the commensurate benefits of reduced competition.

The evidence, therefore, for the core agricultural technology of ploughing is complex. There was a panoply of plough types: the sod buster, the standard tilth ard and the seed drill ard. The efficiency of these tools demonstrated by empirical trials indicates that all soil types were capable of cultivation. Indeed over the last thirty years archaeological survey and excavation has shown that by the Iron Age all soil types in Britain including the heavy clays were occupied and cultivated and that by the end of the first millennium BC the probable population approached five million.

Crops

Our basic knowledge of agricultural products is evidenced by the recovery of carbonised seed, seed impressions accidentally fired into pottery, pollen grains and berries from excavations. While the seed evidence can only tell part of the story since the finds invariably are made within settlement areas and, therefore, relate only partially to the reality of the fields, the range of domestic products are not inconsiderable. For cereal crops, there are four wheat types, four barley types, oats, rye and millet; for leguminous crops there are beans, peas and vetch.

Cereals

Wheat	Wheat Emmer Spelt Old Bread Wheat Club Wheat	<i>Triticum dicoccum</i> <i>Triticum spelta</i> <i>Triticum aestivum</i> <i>Triticum aestivo-compactum.</i>
Barley	Two row hulled Two row naked Six row hulled Six row naked	<i>Hordeum distichum</i> <i>Hordeum distichum var. nudum</i> <i>Hordeum hexastichum</i> <i>Hordeum hexastichum var.nudum</i>
Oats	<i>Avena sativa</i>	
Rye	<i>Secale cereale</i>	
Millet	<i>Panicum miliaceum</i>	

Legumes

Bean	<i>Vicia faba minor</i>
Pea	<i>Pisum sativum</i>
Vetch	<i>Vicia sativa</i>

In addition there are a range of plants now regarded as arable weeds which could also have been used as food plants. For example Fat Hen (*Chenopodium album*) was probable a crop plant, the young leaves eaten like spinach, the mature plant cropped as winter animal fodder, the seeds ground up into flour to be made into bread. Black bindweed (*Polygonum bilerdykia*) similarly can be dried, ground into flour and made into bread. Common orache (*Atriplex patula*), another typical weed of prehistoric fields, can also be treated just like Fat Hen. The fact that carbonised seed of these and many other potential food plants is found within the settlement areas suggests their culinary use.

Livestock

Cattle

The bone evidence indicates the full range of farm livestock plus the use of wild animals, birds and fish. The farm livestock comprised cattle, sheep, goats, pigs and chickens although for the last there is very little evidence indeed. The cattle, the Celtic shorthorn, were relatively small beasts, the direct modern equivalent being the medium legged Dexter cattle. This, although a modern breed, has as its antecedents the Kerry cattle of Ireland and the Welsh Black, themselves probable direct descendants of the Celtic cattle. The Dexters are tough, thrifty animals capable of thriving on poorish pasture and well able to plough with the ard types discussed above. It is most likely that each farm would have had a least five cattle, most probably cows, two of which would have been trained to the yoke, the others as breeding and back up stock. A stock bull would, most likely, be kept on one farm but used within the local area. For milk production, a cow must have calved which in turn allows regular slaughter of unwanted progeny at appropriate times. Given sufficient fodder to take cattle through the winter the longer one can delay slaughter, the larger the beast and the greater the quantity of meat. The bone evidence suggests the slaughter of mature stock of three years of age or more and regularly butchery marks are found on the bones.

Sheep

The typical sheep of the Iron Age are represented by the Soay, Manx Loghtan and Hebridean breeds. Their bones correlate exactly to those found on Iron Age sites and they are, of course, the direct descendants of the prehistoric breeds which have survived in discrete groups in remote areas as their names indicate. Sheep, of course, provide wool as well as milk and meat. The meat from all these breeds is remarkably free of fat and extremely palatable. The goats were most probably like the Old English Goat and they, like the sheep, were kept for milk, meat and hide.

Pigs

The pig was a special Celtic animal. The domestic pigs undoubtedly were bred from the feral pigs but precisely how they were kept is not clear. The wild boar which to this day abounds in the forests of France, Belgium and Germany but sadly no longer in England must have been hunted. Large numbers of small models of wild boar have been recovered from Iron Age sites and the emblem of a wild boar is attested as a shield design. The image of the Celtic farmer setting aside his toils to go boar hunting both for pleasure and for the pot has to be accurate.

Fowl

Domestic fowl were almost certainly kept but the bone evidence is virtually non-existent. Caesar speaks of them keeping chickens and geese for pleasure but that they considered it wrong to eat them. One wonders the source Caesar used for his understanding of Celtic beliefs. The chickens were, in all probability, a type which today we would recognise as the Old English Game Fowl, the cocks of which are naturally extremely aggressive and have been used for cock fighting from time immemorial. This might just account for the observation that they were kept 'for pleasure' (*animi causa*) and also give an attractive interpretation for small stake built round-houses which, un-roofed would have made admirable cock pits. The geese were most likely a domesticated form of the Greylag goose. Again, as the recent Roman history for Caesar recorded, they make splendid sentinels and could have been kept for pleasure or even peace of mind. Whatever pleasures these fowl may have offered, there can be little doubt that their ultimate function was food.

Other food sources

Farm livestock aside, wild animals and birds also found their way into the cooking pot. The obvious resources centre upon the wild boar, the thrill of the chase and the joy of the feast but in addition one must include the traditional quarries of red and roe deer. Caesar's informant included the hare as an animal regarded as a Celtic taboo but it is extremely unlikely that it escaped the chase. Unless all these were fair game there seems little point to the renowned British hunting dog. In viewing the remote past there is often an unsceptical acceptance of doubtful documentary and iconographic evidence which has led to misleading 'definitive' statements. As of the hare, so of wild birds is there an anxiety to focus upon the magical and mystical. In excavations of the Glastonbury and Meare Lake Villages abundant evidence was found for the hunting of wild fowl, primarily ducks and geese and for fishing and fish including the eel. It is not unreasonable to postulate that given edibility, wild animals, birds and fish were all exploited. The wild, of course, also includes a great variety of plants and fruits which provide a seasonable harvest exploited from the time of the gatherer-hunter through, ironically, to the present day. The list of edible wild fruits, berries, roots and plants is formidable and ranges from the tubers of reeds and maces to blackberries and hazel nuts. When farming began in the neolithic the wealth of food gathering knowledge would have persisted ultimately becoming the country lore we recognise today.

Food Preparation

From the above it can readily be concluded that there was a wide and varied range of food, grains, vegetables and plants, meat domestic and wild not only available but also exploited. Exactly how is an altogether more complex problem. The archaeological data can offer a few indications and perhaps the classic legends of the Celts written hundreds of years later provide echoes of prehistoric practice but in the absence of records in the style of Apicius, how food was actually prepared is denied to us.

Quernstones

One of the oldest artefacts from agricultural communities world-wide is the quern stone. The earliest form is the saddle quern; a large gritty stone with a flat face and a small fist sized rubber stone. The seed to be crushed into groats or flour is placed on the surface of the saddle stone, called this because of the usual wear pattern marking it look like a saddle, and then pounded and rubbed by a small hand held stone. Saddle querns, exactly similar to the prehistoric versions, are in use today in many regions of the world. Present day observations record the bouncing of the rubber stone onto the seed on the saddle stone, the movement being extremely rapid and efficient. The only rubbing done was to spread out the resultant flour to check for impurities. Sufficient flour per day for a family of six, well over two kilos can be prepared in approximately a quarter of an hour, the flour being as fine as any machine ground. The successor to the saddle quern was the rotary and oscillatory querns. These comprise a large round flat lower stone with a slightly raised conical surface over which is placed a companion stone perforated with a central hole and with a prepared concave surface in the lower face to correspond with the lower stone's convex surface. A handle is fitted either into the side of the upper stone or in the top set a little way in from the edge. The grain is dribbled into the hole in the centre of the upper stone which is then completely rotated on the lower stone, grinding the seed between the faces and filtering it out around the edges. The oscillatory quern, usually with the handle set in the side of the upper stone, is moved back and forth roughly through a quarter of the circumference. The wear pattern on this type of quern is distinctly asymmetrical and totally different to the even wear of the rotary quern. One further alternative to the quern for which there is a little evidence is the wooden pestle and mortar. The mortar was fashioned by hollowing out from one end a tree trunk about a metre long. Careful use of all these types of querns and the mortar and pestle can produce flour of all grades from cracked wheat to groats to fine flour. Undoubtedly the development of the rotary quern displaced the primary function of the saddle quern but it continues into the later periods and could well have been used for specialist purposes like preparing small quantities of herbs.

Bread

The primary purpose of grinding grain into flour is for the making of bread. In fact a small carbonised leavened loaf has been found looking remarkably similar to a small Hovis loaf. The bread was a mixture of cracked groats and flour. It is often assumed that the bread was unleavened but if the dough is left exposed to the air for just a few hours sufficient yeasts will be collected from the atmosphere to make the bread 'rise'. For cooking bread the foundations of a number of ovens have been found on settlement sites. These seem to have been a tandoori-like domed clay oven which was pre-heated. Alternatively unleavened bread like pitta and roti bread can be quickly baked on both the inner and outer surfaces of the oven. Like the tandoori oven the prehistoric ovens can be used for cooking a great variety of different foods including meat.

Cooking

Central to food preparation is the hearth itself and, indeed, in the circular houses of the prehistoric Celts the hearth was placed at the epicentre of the house. The principal cooking implements associated with the hearth which survive are the cauldrons and the fire-dogs. The fire-dogs are in practice a twofold device. The lower bar is used for supporting the logs in the hearth allowing a degree of heat control, the closer set the logs are to each other the greater the heat, the further apart the lower the heat. The upper bars are used for supporting the meat on the spits; one presumes whole carcasses at a time for feasting, perhaps just joints on less grand occasions. Quite a large number of fire dogs have survived, some with relatively simple decoration, others an intricate and complex design calibrating the work and skills of the Celtic blacksmith. Fewer cauldrons have been recovered but their purpose clearly is for boiling food over the hearth. It seems that they were suspended from an iron tripod allowing them to be raised or lowered according to the temperatures required by the cook. These rather grand metal cooking implements were complemented by simple often crudely manufactured unglazed pottery vessels. Although earthenware is essentially porous it is relatively easy to seal using the fat from milk. Thereafter such pots can be used for boiling and simmering liquids without difficulty. Amongst the pottery fragments are a number which imply the making of cheese. There have even been suggestions that bees were kept in special pottery hives to ensure a regular supply of honey rather than relying upon the collection of wild honeycombs. Honey, of course, was the only sweetening agent available. Certainly both honey and cheese were important elements of diet.

From the artefacts it can be seen that they had all the facilities as well as the appropriate food materials for baking, roasting and boiling although which came first or even which they preferred is almost impossible to tell. In all probability simple roasting over an open hearth and baking in the ashes of a fire date from the gatherer-hunter days of the mesolithic and early neolithic. Only with the advent of farming in the late neolithic and stable domestic housing did food preparation advance into wet cooking. The exploitation of metals further enhanced this last method since it was possible to make large durable utensils far beyond the capacity of an earthenware pot. There is a growing body of evidence to suggest that boiling, especially of meat, could have been a very early process and certainly pre-Celtic in origin. These are the 'Fulacht a Fiadh' or cooking pits. Initially found in Ireland they comprise a wooden lined pit set in a wet area beside a stream or spring where they can be filled easily with water. Next to them are found heaps of fire reddened stones argued to be pot boilers. Experiments have shown that it is a simple process to heat the stones in a bonfire, transfer them into the water and quickly bring the water to the boil and to maintain it at boiling temperature. Thereafter the meat, wrapped in a skein of straw, is introduced and cooked at a rate of twenty minutes to the pound plus a further twenty minutes. These timings are the result of empiricism but given the nature of cooking have to be relatively accurate since par-boiled meat is inedible. The resultant cooked meat, whether beef or mutton is particularly sweet and an entirely different gastronomic experience to spit roasted meat. This is inevitably variable both in taste and texture. These cooking pits were thought at first to be peculiarly Irish but mounds of burned stones unassociated with any settlement and generally any dating material have been found countrywide in Britain and Ireland. The reason for the absence of other evidence except for the waste heaps of burned stones seems to enhance the traditional Irish idea that they were special feasting places set aside from normal life.

Customs

The classical references to the eating habits of the Celts are few and limited. Strabo speaks of their banquets and the way in which strangers are welcomed only being questioned after the meal as to their identity and needs. He also comments somewhat disparagingly about the large quantities of food eaten along with milk and all kinds of meat, especially fresh and salted pork. Tacitus referring to the Germans specifically but whose lifestyle was no doubt similar to the trans-Rhine Celts, talks of their drinking a fermented liquor made from barley and wheat grains

which bears a resemblance to, presumably, Roman wine. The food he describes as plain including wild fruit, fresh game and curdled milk. Somewhat unfairly, bearing in mind well documented Roman indulgences especially those railed against by Juvenal, he refers to their uncontrolled drinking habits suggesting alcohol would be as valid a conqueror as the force of arms. This is not the place to discuss the Celtic feasting habits other than to draw inferences regarding food preparation. The practice of salting meat, for example, is impossible to prove from the archaeological evidence but the implications are obvious. Similarly the curdling of milk hints at the complex processing of dairy products. Would that there were more detailed descriptions.

The later legends of the Celts especially 'The Champions Portion' or 'Bricriu's Feast' reinforce the hints to be found in Strabo, Tacitus, Diodorus Siculus and Posidonius. In this tale the champions portion, traditionally the thigh piece, was to come from the meat from a specially raised seven year old boar and a seven year old cow, for the gastronomic real pork and real beef, boiled in wine in a great bronze cauldron. To complement the meat, wheat cakes cooked in honey were provided. This was the main course and, of course, the cause of the conflict between the champions. Within the story it was preceded by an unspecified first course. The implications of wealth and splendour for this aristocratic element of Celtic society in the prehistoric period are undeniable. For this to be the case, the lower echelons of that Society doubtless enjoyed a less grand but equally satisfactory life style. Their food resources as evidenced were wide and varied and, more importantly, commonly available.

Conclusion

One of the great disservices done to the Celtic world and our understanding of it was the televised recreation of a gruel based upon the evidence extracted from the bog body of Tollund man. This comprised a mixture of vegetable remains of a finely ground gruel prepared from barley, linseed, gold of pleasure, knotweed, black bindweed and arable weed seeds, which was universally condemned by those who ate it. This meal accords so badly with the wealth of alternative evidence that its interpretation can only be that of a ritual last meal given to a condemned man. If only they had recreated a Celtic feast the media image of the remote past would have been entirely different and significantly more accurate.

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