

# *Period Fencing: Methods of Enclosure of the Medieval and Renaissance Periods*

By Henry Walker

## Abstract

The fence is most often thought of as an agricultural tool, constructed from wood, however, as this investigation will demonstrate, there are different types of fences, all of which qualify under this description, not because of their construction, but purpose. In investigating the fence, we must examine it and some of those topics associated to gain a greater understanding of its purpose, and the reason it was present in many different forms. The materials were a matter of availability. The farmer had to consider what was available, and how this would impact the future of their property, such considerations are often left aside when making such investigations but are essential to understanding.

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## Introduction

The following investigation is a discussion of fencing, the agricultural form, as it appears in the Medieval and Renaissance period, and before. The investigation's purpose is to highlight the presence of such structures and determine what forms appeared in these periods and present information about their construction, use and materials. There is a general, and common understanding of what a "fence" is in modern terms. It is the use of such structures which defines them.

From a more personal perspective, comments are often made about "period fencing" concerning the Art of Defence, a matter quite different from the topic discussed in this investigation. So, the purpose is to understand this form of "fencing" so it can be presented to those individuals who might be interested. Thus, to further knowledge about a subject which is pertinent to the studies of the Medieval and Renaissance periods.

In consideration of the subject, there are certain elements which must be defined before the discussion can begin. Thus, the first part of the discussion aims at defining terms which are pertinent to the investigation. Within this section of the investigation the term "fence" will be defined so both author and reader will understand exactly what is being discussed. Other pertinent terms will also be defined to have them elucidated so they can be used with common understanding throughout the following discussions of the subjects. Some other terms will be used in the investigation, and they will be defined as they appear.

The picket fence is a common sight along suburban streets and is most associated with the American ideal of suburban life; the ideal of the "white picket fence" surrounding the family home. However, this was not an invention of the colonists of the American colonies but is present in images which pre-date their arrival upon these shores. This leads to the following discussion of fences appearing in the art and other illustrations found in the Medieval and Renaissance periods.

From the illustrations of the Medieval and Renaissance periods, mostly in Books of Hours and other illustrations, we find images of fences. These images were produced by individuals who were residents of these periods, and produced images of what they saw, even if they were trying to represent ages which had come before. The images presented in this study of illustrations from the Medieval and Renaissance period show the different types of fencing which were common to the different classes of individual present in the period, and the different types of fence present. From this we can gain an understanding of some of the purpose of these fences, though there needs to be further investigation of these purposes.

When the subject of "enclosure" appears in discussion, it is most associated with the industrialisation and growth of capitalism in the 18<sup>th</sup>-century; there is evidence for the



practice earlier. This is not the only conception discussed in this section, as there is a less monetary form of enclosure. There is the enclosure of one's own property to define property lines. This was an important aspect to define where resources were owned by one farmer or another. These property lines were defined by fences. The impact of the enclosure, where landowners began consolidating their arable land for profit, is certainly presented.

When fences are considered, there is the question of what the fences were constructed. In the construction of fences in the Medieval and Renaissance period, and before, there was a concern that the materials were properly managed. This is evident through period sources; nothing was left to waste. The farmer used what was most plentiful in constructing their fences and managed resources to ensure they had sufficient for future projects and other needs, not only fences. Such ecological considerations would seem to be quite modern, but they were evidently present in these periods. Where wood was more plentiful, wooden fences were created; where stone was more plentiful, we see walls present.

There could be an argument as to whether a wall qualifies as a fence, and here it is most important to examine the use of the structure, rather than its form. Where stone was more present than wood, walls were created for the same purpose that wooden fences, or hedges were used. These same walls can be seen still crossing the countryside of England to this day. An examination of these walls reveals a long history of their use for agricultural use, and indeed an international use of the methods for creation of the same walls. To disregard the wall from this discussion would be to view the subject very narrowly.

There is a 16<sup>th</sup>-century treatise on husbandry which was most useful called, *Five Hundred Pointes of Good Husbandrie*. It details information a farmer should know in stanzas, in some cases these are mnemonic poems for the farmer to remember, while others are more prose than poetry. There are several instances where the subject of fences appears in this treatise, and these have been extracted and discussed to demonstrate the importance of fences to the farmer.

The hedge as a form of fence has been indicated previously, but more discussion is required. There is a discussion about using the hedge as a form of fence. This usually comes in concert with a ditch to improve the effect of the hedge. Hedges, today, are usually for artistic and decorative purposes. For the farmer of the Medieval and Renaissance period, they were used to protect their crops and property. Further, the same hedge supplied resources if well-managed. This is a living fence, and some of the resources could be used for other fences.

The farmer of the Medieval and Renaissance period hopefully had a few animals. These were a resource of their own. Cows supplied milk, and meat eventually, though pigs were primarily meat. Sheep had wool to sell, these became a most profitable animal. All



were useful in another way, the dung from these animals would also help fertilise the fields where the cereal and other crops were planted. But animals had to be kept out of crops and kept in and away from thieves and other threats. Fences provided the ability to do this, hurdles were especially useful in these activities.

The wattle is a method of weaving sticks to form a fence. These sticks need to be of the right age and type, so they do not break when they are weaved together, thus there is a special selection and method of construction to create such a fence. Further, this type of fence comes in different forms ones with closer weave, and ones with wider weave, depending on what is required. The individual can also create individual panels called hurdles, which can be used as mobile fences, and for other purposes. The wattle is a very useful form of construction and is essential for understanding fencing in these periods.

Moving to forms of fencing particular to their use, or area where they are found, due to aspects of their nature. The first is the “roundpole fence” which is found in Scandinavian countries. This is a different form of fence to the other forms of fence and is heavily laden on the use of wood in its construction. Further, it requires mostly, or full-grown trees in its construction, unlike the wattle. The other form of fencing which will be discussed in the main part of the discussion is the military fence. This primarily belongs in a discussion of military architecture, or military engineering, but some recognition of these types of fences as fences is required.

What does it all mean? There are different types of fences discussed in the following investigation to highlight their use in the Medieval and Renaissance periods, and before. This is to highlight their use as “period” forms of fencing. There is some indication about how they were used from some of the sources which have been presented. However, it would be most useful to have such described in a single source, an example is presented in Appendix 1 from a source from 1613. This describes the construction of a garden fence, and the best kind to use. Usefully it goes through different types of fences which have been discussed, and then the discussion of a paling fence, which is a combination of paling fence and hedge. One could argue about the date of the treatise, but the practices are clearly older than the publication of the treatise, as illustrated.<sup>1</sup>

The purpose of this investigation is to illustrate the different types of fences found in the Medieval and Renaissance period, and before. To give an indication of the types of structures used to protect property and crops, and husband animals. However, other types of construction have been indicated using the same methods, indicating the utility of these

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<sup>1</sup> I can also indicate by the time that it takes to have a book properly prepared for publication and to get it published that the author could have written the book pre-1600, and then had trouble getting it published, as this would have been a costly exercise.



practices. Further, some of the social aspects related to the fence, and the agrarian life-style have also been indicated to attempt to give the reader an idea of the life of the farmer. I hope the reader will gain a greater understanding of these matters as they read.

## Definition

To begin a project concerning an object or a concept we must first define the object or concept. This means separating this object or concept from other objects and concepts, while deciding what is included within the same. To achieve such a thing means to find a definition. There will be some definitions presented below, first a generic definition of a fence.

*“A fence is a structure that encloses an area, typically outdoors, and is usually constructed from posts that are connected by boards, wire, rails or netting. A fence differs from a wall in not having a solid foundation along its whole length.”<sup>2</sup>*

We have an image of a fence as a thing, it divides a certain area from another for a purpose. This thing usually has posts with something in between to connect them so there are no gaps through which something may pass. In the Medieval and Renaissance period, had the option of wood, a most common material for fences in different forms. Metal would not often be used because it was too precious and was used for tools, weapons, and other things, even the fasteners which held the fence together.

Then we come to the subject of rock and stone, and where the fence becomes a wall. This is a line that needs to be drawn in some place, or they need to be included in part, in any case, a decision is required. For this investigation of the fence, it is more dependent on use, though there will be fences used for a variety of things, use is essential. A wall can do what a fence does and be it. “Solid fences, including: Dry-stone wall or rock fence, often agricultural”<sup>3</sup> here a wall is a fence, such evidence is found in many different places, none so much as around the agricultural parts of England. Indeed, there is the recommendation from documentation of the early 17<sup>th</sup> century that they have one and the same use when it comes to a garden.

*“Now when you haue found out a perfect ground-plot, you shall then cast it into a great large square, which you shall fence in either with a stone or bricke wall, high, strong pale, or great ditch with a quicke-set hedge, but the wall is best and most durable, and that wall would haue vpon the inside*

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<sup>2</sup> Wikipedia “Fence” in Wikipedia, Wikimedia Foundation Inc., 2021, <https://en.wikipedia.org/wiki/Fence>, [accessed 12/10/2021]

<sup>3</sup> *ibid.*



within twelue or fourtéene foote on of another, Iames or outshoots of stone or bricke,"<sup>4</sup>

The brick wall, or fence, being the strong pale have the same use for enclosing the ground plot which has been selected for the garden. The wall is most recommended as it is the most durable, and as indicated this method of separation should not be subtle at all, clearly not for a small plot of land, such as a garden for a small house. There is also the indication of a ditch with a hedge grown in it, such a thing is called a fencerow, sometimes called a hedge-row where a hedge is present but serves the same purpose.

"A fencerow is the strip of land by a fence that is left uncultivated. It may be a hedgerow or a shelterbelt (windbreak) or a refugee for native plants. If not too narrow, it acts as a habitat corridor."<sup>5</sup>

In the search of a definition for an object, or concept, it is often the use of the object or the concept which is more useful and vital than its definition or the sum of its parts. One could limit the discussion of the fences to follow only to those for domestic or agricultural use, or those made from wood, or some other limitation, but that would leave holes in our understanding of the subject. While there are certain limitations which are placed on the investigation before you, and they will become apparent, it is vital that we perform this examination open eyes to gain the most out of it.

## Picket Fence

The picket fence with its white vertical and horizontal boards is one of the most recognised forms of fencing in the world. In our current era, it is a recognised symbol of suburban living, and the so-called "perfect" house. These fences are particularly popular in the United States, and it is often thought that they originated there.

"Picket fences are a type of fence often used decoratively for domestic boundaries, distinguished by their evenly spaced vertical boards, the pickets, attached to horizontal rails. Picket fences are particularly popular in the United States, with the white picket fence coming to symbolize the ideal middle-class suburban life."<sup>6</sup>

However, contrary to modern opinions, they did not originate in America. There is evidence from images of the Renaissance period of this form of fencing from the early sixteenth-century. "Botticelli shows a picket fence in his painting *Agony in the Garden*, painted c. 1500."<sup>7</sup> Such indications indicate such fences existed and were used before the

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<sup>44</sup> Markham, G. *The English Husbandman*, T.S., London, 1613, p.78

<sup>5</sup> Wikipedia "Agricultural fencing" in Wikipedia, Wikimedia Foundation Inc., 2021, [https://en.wikipedia.org/wiki/Agricultural\\_fencing](https://en.wikipedia.org/wiki/Agricultural_fencing), [accessed 10/7/2021]

<sup>6</sup> Wikipedia "Picket fence" in Wikipedia, Wikimedia Foundation Inc., 2022, [https://en.wikipedia.org/wiki/Picket\\_fence](https://en.wikipedia.org/wiki/Picket_fence), [accessed 29/6/2022]

<sup>7</sup> *ibid.*



American colonies were established. We must examine fences with an open mind when examining their history and examine both pictorial and archaeological history for their actual origins and history.

## Illustrations<sup>8</sup>

Concerning the subject of evidence of fences, while undoubtedly, if a pictorial representation is required, one only need to examine illustrations of fences as there are “abundant illustrations of mediaeval fences especially in the Books of Hours.”<sup>9</sup> There will be a discussion of some images found in such documents, which are of note. Then further in the discussion a section where a selection of period images will have the fences present in them described.

### Les Tres Riches Heures

“Of all the illustrated manuscripts one of the most celebrated is that of the Duc de Berry, *Les Tres Riches Heures*. Commissioned by Jean de Berry in 1409, the *Tres Riches Heures* was executed by Paul, Hennequin and Herman de Limbourg, undoubtedly the best miniaturists of the period.”<sup>10</sup>

The images in *Les Tres Riches Heures*<sup>11</sup> are sublime, they have an amazing amount of detail present in them. Concerning the subject of fences there are several images in which fences are depicted, these are mostly of the woven kind with upright stakes having had branches woven in amongst them, which will be known as wattles. There is an image where there are walls being used as fences, but this is less common. However, these fences are clearly of an artist’s creation.

“As illustrated, it is the dream of a fence maker, the rods are never ending and of a consistent thickness and flexibility. All the uprights are perfectly vertical and exactly similar. Would that this were the case in reality. One detail of the fence completion is accurately rendered in detail. The final rods at the top of the fence are put on in pairs from either side of the fence posts and as they are interwoven around the posts they are themselves interwoven with each other. This same detail is shown in the fence around the byre in the scene of the Nativity.”<sup>12</sup>

There is often much different between an artist’s impression and what happens or happened. The fences, as indicated, are perfect. All the posts are straight, there is no

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<sup>8</sup> While it would have been most useful to have the images indicated in this section present in this document, for the purposes of avoiding copyright issues they are absent.

<sup>9</sup> Reynolds, Dr. P. “The Mediaeval Fence”, “*Arqueologia Experimental: Aplicacio a l’Agricultura Medieval Mediterrania*” in *Memoria del Projecte LEAF (1991-1994)*, 1993, p.1

<sup>10</sup> *ibid.*, p.2

<sup>11</sup> Wikipedia, “*Très Riches Heures du Duc de Berry*” in Wikipedia, Wikimedia Foundation Inc., 2023, [https://en.wikipedia.org/wiki/Tr%C3%A8s\\_Riches\\_Heures\\_du\\_Duc\\_de\\_Berry](https://en.wikipedia.org/wiki/Tr%C3%A8s_Riches_Heures_du_Duc_de_Berry), [accessed 19/07/2023]

<sup>12</sup> Reynolds, Dr. P., p.2





indication of cracking or warping in any piece of wood in any part of the scene, let alone in the fences. While they present an image of what might have been, they present a more *perfect* image of what might have been.

### Open and Enclosed

Of note, and recognised by Reynolds, there are significant notes to be made that in the medieval period there were few fences in the countryside, at least in the medieval period. Most of the fences were confined to gardens or larger estates. The fields at this stage, seem to be more “common” land, “it is interesting to observe that in the countryside at large there are virtually no fences at all. The field areas are generally not contained by any specific boundaries.”<sup>13</sup> The discussion of the change between the common land, where the land was all in strips, and where landowners began to parcel their land together is called enclosure; discussed later in this investigation. There were other agricultural fields that were enclosed, showing the difference in money involved.

“In contrast, two vineyards appear to be surrounded by quite substantial walls. The September scene of the grape harvest, this time in an unwalled vineyard, depicts an odd length of fence which has no discernible purpose whatsoever. The fence itself is rather different to the stylised wattle fences elsewhere in that it shows the rods interwoven at an angle rather than horizontally. In fact it is altogether a more accurate depiction of an ordinary fence.”<sup>14</sup>

Regardless of its intent, there is a certain power in a high fence. There is a certain statement where certain crops are put behind a high fence, while others have a low fence, or none. This social difference is even more evident when these differences appear in art. Examine the difference between a scene of peasants, or common farmers, and their fences, as compared to a nobleman’s garden. Compare the images and see what the artist is saying behind the use of different fences. In modern terms, look at the difference between, a suburban chain-link fence, and a high chain-link fence with barbed- or razor-wire on it. Each says something different.

### Image Interpretation

When addressing an image interpretation. The first thing is that it is an interpretation on the part of the author based on the goals of the piece of research being proposed. This means that the religious significance of any of the images discussed is not addressed, nor any allegorical nature of the images which may be the case. The focus is the representation of the fences in the images.

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<sup>13</sup> *ibid.*, p.2

<sup>14</sup> *ibid.*, p.2



Artists of the period recreated what they saw. This makes these images a useful resource for this kind of study. We can see the image of a particular thing from the perspective of a person who was there. Unfortunately, we can't ask them about the images, or their thought processes. However, we can examine these images and get an idea about some of the items from the period, such as fences.

For ease of organisation, the images used in this study will be organised chronologically. Of importance, these are in no way the only images depicting fences from the Medieval and Renaissance period, this is a small slice of the representation of some of the fences present. To attempt to address all of them would be a life-time's work, and not the purpose of this investigation.

### The Annunciation

The first image is a 15<sup>th</sup> century Italian image produced by Fra Angelico, located in the Basilica of St Mark, called "The Annunciation".<sup>15</sup> The rear of the image depicts a high paling fence with evidence of nails or some similar method of joining at the top, middle and toward the bottom of the fence. This is a wooden fence and has some of the irregularities of such a fence present in the image, such fences are relatively common to such images of this period, as will be noted.

### Virgin Saints in the Garden

The "Virgin Saints in the Garden" is from a wood-cut image, and is English and dated to 1418, the artist is unknown.<sup>16</sup> Like the previous image, it depicts a paling fence which surrounds the individuals which is within it. There are a cross beams both high and low which are likely secured by nails given the indication in the image. The fence would likely be about waist-height, approximating the height of the gate, though it could be thigh-high as will be seen most of the other examples.

### MS M.366. Fol. 050r

The image catalogued in the Pier Point Morgan Library as MS M.366. Fol.050r, comes from a Book of Hours from Tours in France and is dated to ca. 1470 and has no catalogued author.<sup>17</sup> This is a Nativity scene, the background has a high paling fence. The palings are pointed at the top with an upper and lower cross-beam. However, unlike the previous images, there is no evidence of how the palings are secured. Like the previous images of such paling fences, there are no gaps present.

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<sup>15</sup> "The Annunciation", Fra Angelico, Basilica of St Mark, 15<sup>th</sup>-century,  
[https://en.wikipedia.org/wiki/Hortus\\_conclusus](https://en.wikipedia.org/wiki/Hortus_conclusus)

<sup>16</sup> "Virgin Saints in the Garden", Unknown, English, 1418,  
[https://en.wikipedia.org/wiki/Hortus\\_conclusus](https://en.wikipedia.org/wiki/Hortus_conclusus)

<sup>17</sup> Pierpont Morgan Library MS M.366. Fol.050r, Book of Hours, Tours, France, ca. 1470



## Gardening

The image which is referred to simply as “Gardening” is a miniature in Flemish translation of Christine de Pisan's *Cité des Dames*; from Bruges, dated 1475.<sup>18</sup> The fences are posts with wattle, a common method of the period. They stand thigh-high, as in many of the fences in these images. This was a common method especially for common folk.

## Harley MS 4425 Fol.012v

The higher classes, especially the nobility had gardens which were a stark difference from the farms of the lower classes. The Harley MS 4425 Fol.012v, known as the Roman de la Rose, is dated to c 1490-c 1500, and was illustrated by Guillaume de Lorris and Jean de Meun.<sup>19</sup> Unlike the previous examples this depicts a noble garden, one which is walled. It has a high wall around it, then smaller walls, about shoulder-height inside. Further there is the presence of two different types of fences, one of which will reappear in following images. There is one which is more like what we would consider a trellis, with simple uprights and cross-beams a distance apart. The other fence is more interesting as it has solid wooden frames and panels within made of crossing pieces in a lattice format. All the fences these are at thigh-high. This second style is found in the “Mystical Attributes of the Virgin”<sup>20</sup> and MS H.8 fol-2v,<sup>21</sup> of the same height and the same construction. This gives evidence of complex construction used, relatively frequently, if only seen in noble gardens.

## The Spring

The final image is of interest, due to the simple fence which is present in the foreground, and other features. “The Spring” by Jacob Grimmer (c.1526-89),<sup>22</sup> has what looks like an outer wall made of brick, which connects to what can only be described as a picket fence, even though the pickets are quite wide. There are some very well-maintained hedges which are preventing sheep from entering other parts of the farm. What is most interesting is the red wooden fence off to the right-hand side of the picture. It gives all the impressions of a ladder laid on its side. The fence is quite low, and the verticals are spaced quite a distance apart and look like they have been shaped by some method, likely carving.

In the examination of illustrations regardless of their source, if they are from the period, they are worth paying some attention. There is information within them for the individual who wishes to find it. There have been several findings made here. The difference between upper- and lower-class fences, at least in the artists’ impression. The construction of

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<sup>18</sup> “Gardening” translation of Christine de Pisan's *Cité des Dames*; from Bruges, dated 1475

<sup>19</sup> Harley MS 4425 Fol.012v, Roman de la Rose, Guillaume de Lorris and Jean de Meun, c.1490 – c.1510, [https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_4425](https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_4425)

<sup>20</sup> “Mystical Attributes of the Virgin”, Grimani Breviary, Anonymous, 1490-1510

<sup>21</sup> Pierpont Morgan Library MS H.8 fol-2v, Hours of Henry VIII, Illuminated by Jean Poyer, c.1500, <https://www.themorgan.org/collection/hours-of-henry-viii/10>

<sup>22</sup> “The Spring” by Jacob Grimmer (c.1526-89)



different types of fences, some of which are still being used in the modern period, with the same materials. These are all useful pieces of information, we should broaden our view and not underestimate those who came before us and their understanding of things, especially those things which they relied upon for their livelihoods.

## Enclosure

The enclosing of land, bringing plots of land together and the results it had upon smaller, peasant, farmers is a more recognized feature of the 18<sup>th</sup>-century, however, the process started quite a bit earlier, if on a smaller scale. The intent was the same, to consolidate holdings, and there were devastating effects upon some of the population. This is a subject relevant to this investigation of period fencing, as these plots were all fenced in.

“[England] farmers began exchanging their scattered plots of land in order to consolidate individual holdings. These consolidated plots were then enclosed with a hedge or fence to prevent them from being fence subjected to the regulations that governed the use of the remaining strips.”<sup>23</sup>

The process of larger landowners consolidating and enclosing their holdings began much earlier than one might recognise. There is evidence for this practice quite a bit earlier than the recognised 18<sup>th</sup>-century practice, even if it did occur on a more “innocent” basis. The idea was it was easier to work, or have people work, one larger area than multiple strips in different areas. The recognition of these processes is recognised in period documents, and that a person should be careful from where they draw their resources.

“In euerie greene, if the fence be not thine,  
now stub vp the bushes, the grasse to be fine.  
Least neighbour doo dailie so hack them belieue,  
that neither thy bushes nor pasture can thriue.”<sup>24</sup>

The author instructs the reader to be careful from where they draw their resources. To ensure they only draw from their area, that the fence divides them from what is theirs and what is not. Further, it is important to maintain the fences, in this case the hedge, to ensure the neighbour is not drawing from the reader’s side either, even by mistake, and thus affecting their crops or other resources. This idea of creating a fence to enclose what was a

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<sup>23</sup> Britannica “origins of agriculture - The medieval period: 600 to 1600 ce”, Britannica.com, 2021, <https://www.britannica.com/topic/agriculture/The-medieval-period-600-to-1600-ce>, [accessed 10/12/2021]

<sup>24</sup> Tusser, T. *Five Hundred Pointes of Good Husbandrie*, The Edition of 1580 collated with those of 1573 and 1577. Together with a Reprint, from the Unique Copy in the British Museum, of "A Hundreth Good Pointes of Husbandrie," 1557, London, Trübner & Co., 1878, p.96



person's, from another's seems to be a more modern idea, but its origins lie in much earlier periods. "Farmers typically enclosed their land with hedgerows, stones, or trees."<sup>25</sup>

The indication of the form of fencing designed here is of a definitively natural kind, drawn from the land. Hedgerows could be used for other purposes, their materials used to enhance other parts of the process. The stones were most often dug from the fields in which crops were planted, thus serving a dual purpose. Trees likewise were a living resource the individual could draw off. These hedgerows were a resource and belonged to an individual.

"No bushes of mine,  
if fence be thine."<sup>26</sup>

In the simplest terms, if the bushes which create the fence belong to one person, they are not a resource to be used by the neighbour. Further, the same indicates that the fence divides the two showing what is owned by one and what is owned by the other, at least in respect of the land. Where stones were readily available, stone walls were used to enhance the hedges in a combination effect. "A stone-faced hedge dividing fields in southwestern England."<sup>27</sup> These stone walls, remain, often dated to the medieval period, and sometimes earlier. They were simply used in the beginning to divide what was one from another. The enclosure of land became more "business-orientated" as the Renaissance wore on.

"By the sixteenth century the growth of population and prosperity provided incentives for landowners to use their land in more profitable ways, dispossessing the peasantry. Common fields were aggregated and enclosed by large and enterprising farmers — either through negotiation among one another or by lease from the landlord — to maximize the productivity of the available land and contain livestock."<sup>28</sup>

Sheep were found to be especially profitable, so land was consolidated and fenced, often with the stone walls which are seen throughout England. In many cases, small peasant farmers were forced off their farms to accommodate these aggregations. In return they had to accept leases under the new landlords or be forced completely off the land and had to find new work elsewhere. The focus of the landowners was on the productivity of the land and there was no care for the people who they forced off the land. These consolidations of land resulted in some devastating changes in the landscape. "[England] the profit of wool encouraged enclosure of formerly open fields for grazing; some villages were even destroyed to increase the area of grazing land."<sup>29</sup> We only need to consider the effects of

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<sup>25</sup> Wikipedia "Agriculture in the Middle Ages" in Wikipedia, Wikimedia Foundation Inc., 2021, [https://en.wikipedia.org/wiki/Agriculture\\_in\\_the\\_Middle\\_Ages](https://en.wikipedia.org/wiki/Agriculture_in_the_Middle_Ages), [accessed 21/12/2021]

<sup>26</sup> Tusser, T., p.90

<sup>27</sup> Wikipedia "Agriculture in the Middle Ages"

<sup>28</sup> Wikipedia "Fence"

<sup>29</sup> Britannica



these changes on the populations, the focus was on the greatest profits, not the people it affected.

## Fencing Materials

“Conversely, common resources were less constrained in woodland and heathland areas, and these provided more by-employments such as the cutting of wood and furze for fuel, wood-working to make furniture, fences and a wide range of vessels, tools and implements, charcoal-burning and general forestry.”<sup>30</sup>

From a purely modern perspective with our almost unlimited access to resources, it would almost seem strange to use resources in such fashion, though we are now beginning to feel the pinch and beginning to be more careful with our resources. The agriculturalist of the Medieval and Renaissance period, especially the peasant farmer had to be especially careful how they used the resources. Certain wood was better for certain purposes, others for other purposes; there was even a consideration for the best for firewood and other burning activities. These resources were limited, and the farmer had to make the best of them, especially as they were mostly seasonal, or simply pulled from the fields.

## Available Materials

“The earliest fences were made of available materials, usually stone or wood, and these materials are still used for some fences today. In areas where field stones are plentiful, fences have been built up over the years as the stones are removed from fields during tillage and planting of crops. The stones were placed on the field edge to get them out of the way. In time, the piles of stones grew high and wide.”<sup>31</sup>

The farmer in the woodlands and heathland and concern for using wood in the best fashion, using appropriate wood for appropriate purposes, including fencing was discussed. What happens if there were not convenient woods, or there was a limited supply of wood available? To fence something would take a substantial amount of wood. Stones in fields were a problem, they were dug out and piled, so these were used as a resource, hence we must not discount the wall as not being a fence, as these were used for the same purpose as the wooden fence, or hedge.

“Go plow vp or delue vp, aduised with skill,  
the bredth of a ridge, and in length as you will.

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<sup>30</sup> Dodd, A. *THE THAMES THROUGH TIME The Archaeology of the Gravel Terraces of the Upper and Middle Thames: The Thames Valley in the Medieval and Post-Medieval Periods AD 1000-2000*, Oxford, Oxford Archaeology, Oxford University, UK, 2019, p.2

<sup>31</sup> Wikipedia “Agricultural fencing”



Where speedy quickset for a fence ye wil drawe,  
to sowe in the seede of the bremble and hawe."<sup>32</sup>

Tusser advises his reader to go to a ridge and draw stone from a ridge, where stone will most likely be found. The same could be drawn as far as the individual likes for this was not considered good planting ground. This gains the reader the stones to begin the lower part of a fence. Then the reader is advised, where a quick fence is needed, to get the seeds of brambles and hawthorns to supplement the stones which have been used as a fence. The resulting fence is a combination of hedge and wall, which can be seen still in evidence. Stones in a ploughed field were removed as waste, both brambles and hawthorns were considered weeds and a nuisance, but they saw use.

### No waste

"In such woodland management nothing was wasted. Once the actual materials were obtained, all the off-cuts, twisted branches and brash would have been carefully collected and bundled up ready for transporting back to the farm. Here was the kindling wood and firewood. Fine hazel wands and willow osiers, too thin for fencing, were cut and set aside for basket making. Even the bark and lichens were used for dyeing purposes. It is most likely that the mediaeval woodland was a well-ordered and extremely tidy place, not the tangled unwanted and unneeded mess which is the norm with modern woodland."<sup>33</sup>

Only some of the indicated uses of the wood were indicated previously, the above gives a much more detailed list about how the wood, and its off-cuts were used on the farm, and the reason that none of it was left behind. We imagine woodland as a tangled mess, with fallen branches and the like all over the place. Where a farmer was close this would have been unlikely because these fallen branches would have been taken back and found some use on the farm, it would be quite a different sight to the modern woodland, mostly untended and unused. Or at least unused in the same way.

"Leaue grubbing or pulling of bushes (my sonne)  
till timely thy fences require to be donne.  
Then take of the best, for to furnish thy turne,  
and home with the rest, for the fier to burne."<sup>34</sup>

Not only was there a purpose for each piece of wood; there was also a process which was followed to ensure the farmer gained the greatest advantage from their resources. Fences took priority over furnishings, and wood for the fire, and even removing bushes. These were the priority because they kept unwanted intruders out of the fields, the stores, and away from the animals. We often disregard fences, but to the Medieval and Renaissance

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<sup>32</sup> Tusser, T., p.71

<sup>33</sup> Reynolds, Dr. P., p.6

<sup>34</sup> Tusser, T., p.96



farmer, fences had quite a high priority. The building of good fences protected the future of the farmer and their family through the products they could sell; so, they could stay alive and housed.

## Walls

Walls are often considered different to fences, this is because purpose is not considered. If we consider the thing's purpose, walls were also used for the same purposes as fences, e.g., for restraining animals and marking property. This method is substantially more permanent than the wattle or other kind, and evidence can be seen in the stone walls from the Bronze Age and even further back in history can be found. Further, it is quite narrow to think of these walls as coming in only one form.

“Dry stone, sometimes called drystack or, in Scotland, drystane, is a building method by which structures are constructed from stones without any mortar to bind them together. Dry stone structures are stable because of their construction method, which is characterized by the presence of a load-bearing façade of carefully selected interlocking stones.”<sup>35</sup>

The dry stone wall is the most common form of wall that was constructed for the purposes of fencing. However, it is not the only form of that was created, either in the form of a wall, or using stone. There are other forms of stone wall that must be considered to appreciate the variety of walls that were present in the period. “Vaccary fence (named from Latin *vaca* - cow), for restraining cattle, made of thin slabs of stone placed upright, found in various places in the north of the UK where suitable stone is had.”<sup>36</sup> The vaccary fence required larger slabs of stone, which were fashioned into the correct shape, where such stone was not available, such a fence could not be created. It is noted that where no stone was available, the most common form of fence was either the wattle or the hedge and ditch combination. However, for the purposes of the following discussion, and due to its dominating presence, dry stone will be primarily discussed.

## Dry stone

“Dry stone construction is best known in the context of stone walls, traditionally used for the boundaries of fields and churchyards, or as retaining walls for terracing, but dry stone sculptures, buildings, bridges, and other structures also exist.”<sup>37</sup>

Stone walls can be seen in many different places and were used for different purposes. They were used for the construction of buildings and other projects, and walls as

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<sup>35</sup> Wikipedia “Dry stone” in Wikipedia, Wikimedia Foundation Inc., 2023, [https://en.wikipedia.org/wiki/Dry\\_stone](https://en.wikipedia.org/wiki/Dry_stone), [accessed 30/3/2023]

<sup>36</sup> Wikipedia “Fence”

<sup>37</sup> Wikipedia “Dry stone”





fences as this investigation indicates. The larger buildings, churches, castles, bridges, and the like are the most recognised use of dry stone construction. “Typically a jigsaw of weathered stones and local flints, dry-stone walls are walls constructed without the use of any mortar.”<sup>38</sup> Dry stone is strictly the construction without mortar, however there are instances where a simple mortar was used, just to ensure the fit of the stones between one another. Concerning the stones themselves, in the walls that surround the fields, they came from the fields themselves.

“The higher-lying rock-rich fields and pastures in Bohemia's south-western border range of Šumava (e.g. around the mountain river of Vydra) are often lined by dry stone walls built of field-stones removed from the arable or cultural land. They serve both as cattle/sheep fences and the lot's borders. Sometimes also the dry stone terracing is apparent, often combined with parts of stone masonry (house foundations and shed walls) that are held together by a clay and pine needle "composite" mortar.”<sup>39</sup>

This exemplifies the idea of “nothing going to waste.” Rather than just piling them up to one side and trying to find suitable wood to create a fence for the field, the stone drawn from the field was used to create the fences which surrounded it. This was often the case, especially for those poorer farmers who were left with fields not on the low-lying lands, but up on ridges, where stone was plentiful. As is the case of everything, there is a nomenclature which is associated with the phenomenon.

### Terminology

“Terminology varies regionally. When used as field boundaries, dry stone structures are often known as dykes, particularly in Scotland, where professional dry stone wall builders are referred to as 'dykers'. Dry stone walls are characteristic of upland areas of Britain and Ireland where rock outcrops naturally or large stones exist in quantity in the soil. They are especially abundant in the West of Ireland, particularly Connemara. They may also be found throughout the Mediterranean, including retaining walls used for terracing. Such constructions are common where large stones are plentiful (for example, in The Burren) or conditions are too harsh for hedges capable of retaining livestock to be grown as reliable field boundaries. Many thousands of kilometres of such walls exist, most of them centuries old.”<sup>40</sup>

Depending on where you are the terminology of a thing will change. The notation about the state of the soil and the region in relation to the number of stone walls is as

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<sup>38</sup> Odyssey Travel “Dry Stone Walls: An Alternative History of the British Isles” in Travel Articles, Odyssey Travel, 2021, <https://www.odysseytraveller.com/articles/dry-stone-walls-an-alternative-history-of-the-british-isles/>, [accessed 21/12/2021]

<sup>39</sup> Wikipedia “Dry stone”

<sup>40</sup> *ibid.*



important as the terminology which has been revealed as it demonstrates the utility of using the stone wall rather than a hedge, simply because the hedge would not grow. Stone was plentiful so it was used rather than some resource which was in much shorter supply. The age of these walls is also of note as they will be noted to be quite old, some of them even dating back to the Bronze Age, if not earlier.

“These [Bronze Age] walls, technically called reaves, are the easiest to overlook during a country stroll. Such walls were either constructed as a place to dump stones that had been cleared during the creation of Britain’s first farms, or built as an effort to mark the territories of those farms, as Britain’s farmers adapted to the challenges of agricultural societies.”<sup>41</sup>

Again, the choice to build stone walls, these reaves, was due to the presence of the stone which was available, and the other resources which were not so plentiful. A person must use the resources they have available to survive. We often take it for granted the ease with which we can gain resources. This was not the case for these early farmers, they had to work with what was around them. Many of the earliest fences were these dry stone walls.

## History

“Some dry stone wall constructions in north-west Europe have been dated back to the Neolithic Age. In County Mayo, Ireland, an entire field system made from dry stone walls, since covered in peat, have been carbon-dated to 3800 BC.”<sup>42</sup>

The construction of permanent shelters and residences began in the Neolithic age with the beginnings of the agrarian lifestyle. So, it should be of little surprise there are examples of dry stone techniques which date back to this period. Stone walls are an example of permanent settlement, and such examples, as noted, appear later as well in the archaeological record. Even some of the most renowned examples of building are dry stone construction. “The cyclopean walls of the acropolis of Mycenae, Greece, have been dated to 1350 BC and those of Tiryns slightly earlier.”<sup>43</sup> If we consider the reasons for these walls, we can see that the life-style of the individuals who built them had changed, and continued to change.

“Many of these walls were built during the Bronze Age more than 3,500 years ago. They survive as the last evidence of our forefathers’ gradual transition from hunter gatherers to settled farmers. The evolution of stone walls since, most notably around medieval villages in northern England,

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<sup>41</sup> Odyssey Travel

<sup>42</sup> Wikipedia “Dry stone”

<sup>43</sup> *ibid.*



continues this arc of human development. They document the island's shift from feudalism to capitalism, and the pains and rewards that followed."<sup>44</sup>

The Bronze Age, sometimes called the Heroic Age, marked a transition for some people toward a more settled life-style, villages became more permanent, as did other settlements. These stone walls created by drystone techniques show that these settlements were there to stay, rather than being for nomadic peoples. The medieval people used the same fields which were outlined by the walls, and continued with their own, but this was not only the case in Britain. Dry stone techniques were being used across the world. "In Belize, the Mayan ruins at Lubaantun illustrate use of dry stone construction in architecture of the 8th and 9th centuries AD."<sup>45</sup> The Mayan ruins are something which have astounded archaeologists, and historians, for years. We have only just recently been finding the truth behind the ruins which are buried deep in the jungles. The same techniques were used from stone carved out of the jungle.

"Several walls [in Yorkshire Dales] were built in the medieval period, such as the great limestone blocks surrounding the castles in Wensleydale. Here, the walls delineate the estates of the old nobility, who ran feudal Britain from their parapets."<sup>46</sup>

In Europe in the medieval period, the terrain may have been a little bit more hospitable for the people, but other parts of the situation surely were not. While the peasants worked for their masters in carefully delineated estates for the nobility, they sat in their estates and watched the work, managing their estates. The process of feudalism was to lead to another, now more common situation, and the stone wall would be used to bring some of it into effect. Meanwhile across the globe, supposedly "uncivilised" nations had proven they were not, but explorers would ignore their accomplishments later when they arrived.

"Great Zimbabwe in Zimbabwe, Africa, is an acropolis-like large city complex constructed in dry stone from the 11th to the 15th centuries AD. It is the largest of structures of similar construction throughout the area."<sup>47</sup>

Zimbabwean people construct a great city using drystone over a four-century period and, is one of the largest in the area. Such a structure would have taken a lot of labour and administration to create such structures, not to mention the knowledge of how it would all fit together. European explorers and colonists would come along a little later and claim that they were uncivilised, because they were different, because they did things differently. In their own world, the beginnings of capitalism were beginning to take hold.

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<sup>44</sup> Odyssey Travel

<sup>45</sup> Wikipedia "Dry stone"

<sup>46</sup> Odyssey Travel

<sup>47</sup> Wikipedia "Dry stone"



“The expansion of farm lands was naturally accompanied by a considerable spike in the construction of dry stone walls, as farmers marked the expanding boundaries of their properties. The absence of a centralized farming system ensured that most of these new plots were irregular in shape, which meant that the walls built around them were similarly irregular. This makes medieval dry stone walls fairly easy to spot, as they tend to curve across the landscape, hemming in seemingly random sections of land, all in great contrast to the later, straighter lines of modern British farming. Some of the best examples of these medieval dry stone walls can be found in the southwest of England, where the walls were constructed with the same distinctive, fossil rich limestone that makes up the iconic Cotswold villages. Dry stone walls were largely restricted to hilly, typically poorer areas like this. Hedgerows or mortar walls could, even during the medieval period, be afforded in the more affluent low-land farming areas, like East Sussex.”<sup>48</sup>

Population increases resulted in an increase requirement for crops and animals. This resulted in an increase in farmland that was required, and along with it the number of the stone walls that were created. What it also resulted in was small farmers being removed from their farms as richer ones consolidated to improve their profits. The idea of enclosure is one more associated with the 18<sup>th</sup> century, but the process started much earlier and the production of stone walls allowed this to be reinforced even more easily with their permanent nature. Peasant farmers were pushed off the more arable land to hilly, rocky land, which increased the production of stone walls in these areas.

“In Peru in the 15th century AD, the Inca made use of otherwise unusable slopes by building dry stone walls to create terraces. They also employed this mode of construction for freestanding walls. Their ashlar type construction in Machu Picchu uses the classic Inca architectural style of polished dry stone walls of regular shape. The Incas were masters of this technique, in which blocks of stone are cut to fit together tightly without mortar. Many junctions are so perfect that not even a knife fits between the stones. The structures have persisted in the high earthquake region because of the flexibility of the walls, and because in their double wall architecture, the two portions of the walls incline into each other.”<sup>49</sup>

Machu Picchu is one of the most well-known archaeological sites in the world. Indeed, it is now protected by the United Nations as an international treasure. The walls in this grand creation are all of dry stone creation and show some of the breadth of possibility of the method. It is most important to remember when thinking of such things that the Europeans were not the only ones to use these techniques, as has been demonstrated through this quick trip through the history of the dry stone wall.

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<sup>48</sup> Odyssey Travel

<sup>49</sup> Wikipedia “Dry stone”



## 16<sup>th</sup> century Husbandry

The instructions from *Five Hundred Pointes of Good Husbandrie*, a 16<sup>th</sup> century source on husbandry of all kinds, gives information for use of good fences. In which there is lots of use of hedge and ditches, in combination of brambles and other combinations for creation, many what would be called “live” fences are advised. These give the advantage that they produce materials used for other purposes. There are three main subjects discussed below, comments on what composes a good fence; farmwork and its relation to fencing; and the subject of storage, primarily for the purposes of keeping things away from crops.

The format of this discussion will comprise a presentation of the information as found in the source, a sort of mnemonic poetry, which will be investigated for its relevance to the overall subject of fencing. This source covers many areas of husbandry, and the reader is encouraged to seek the original, and others like it, for information about the methods used in this period.

### Good Fence

“Though fence well kept is one good point,  
and tilth well done, in season due;”<sup>50</sup>

The first instruction given, early in the treatise is that a well-kept fence is one good point of good husbandry, and that tilling should be done at the appropriate time. In this we see the importance of good fences immediately, being that the timing of tilling, and it being done well comes secondary to ensuring that the fences are well kept, thus kept in good order. The results of which could cost the farmer price at the market.

“Ill husbandrie loseth,  
for lack of good fence:  
Good husbandrie closeth,  
and gaineth the pence.”<sup>51</sup>

The above states that husbandry gains and loses money based on a good fence. This shows the value of a good fence to the farmer that their livelihood is founded upon how well the fence is kept. The farmer may lose or gain money, based on what is kept within the fence, and depending on how good their fence is and how well it is kept. This concept of the essential nature of the good fence to good husbandry is maintained.

“Spare meddowes at shroftide, spare marshes at paske:  
for feare of a drough, neuer longer time aske.

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<sup>50</sup> Tusser, T. *Five Hundred Pointes of Good Husbandrie*, The Edition of 1580 collated with those of 1573 and 1577. Together with a Reprint, from the Unique Copy in the British Museum, of "A Hundreth Good Pointes of Husbandrie," 1557, London, Trübner & Co., 1878, p.36

<sup>51</sup> *ibid.*, p.154



Then hedge them, and ditche them, bestow thereon pence:  
for meddow and corne, craueth euer good fence."<sup>52</sup>

Here we see a discussion about the timing of husbandry and how each thing has its time. For our discussion, the second last and last lines of this part of the instructions given, the writer talks about a hedge and ditch combination, and that it is good to pay good money for them. Both the meadow and the crop of corn need a good fence to protect them. The importance of a good fence is present throughout the discussions in this text, an essential part of good husbandry, and as we move on to look at the fence in farmwork, we will see a similar impact.

## Farmwork

"Plough, fence, & store  
aught else before."<sup>53</sup>

There is an order to things on a farm, and this must be followed for everything to follow smoothly. The instruction gives this plainly, ploughing first; creating or repairing fencing second; and finally storing the grain. This is a sequence of events that must occur. Seeds must be planted, the crops must be protected, then they must be stored once harvested. Of course, there needs to be more detail how this is to occur.

"(Séede thresh) thou shalt  
thresh barlie to malt.  
Cut bushes to hedge,  
fence medow and redge."<sup>54</sup>

Again, Tusser gives a sequence of events the reader should follow. These events occur around the time of the harvest, just after as the seed is threshed, to prepare for the next planting, for selling as grain, or use. Once this is complete bushes need to be controlled back into the shape of hedges, and their off-cuts used for creating fences as well. All products of the process were used in others, hay and straw was used for hurdles, as were wood taken from the hedges. The remaining scraps were used as firewood. The hedge was not used alone, as indicated previously.

"Let barlie be harrowed, finelie as dust,  
then workmanly trench it and fence it ye must.  
This season well plied, set sowing an end,  
and praise and praie God a good haruest to send."<sup>55</sup>

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<sup>52</sup> *ibid.*, p.220

<sup>53</sup> *ibid.*, p.52

<sup>54</sup> *ibid.*, p.66

<sup>55</sup> *ibid.*, p.116



The process described is for the planting of the grain, barley in this case. The ground is harrowed, so the seed can sink deeply in. A trench is dug around the field where the barley is planted, and a fence is added to this trench for protection. This fence is likely to be a hedge, as the combination of hedge and ditch is a combination common to this treatise, and to the period in which it was written. This was both for its effect, and for the resources they provided, as already indicated.

“First see it well fenced er hewers begin,  
then see it well stadled, without and within;  
Thus being preserued and husbandlie donne,  
shall sooner raise profit, to thee or thy sonne.”<sup>56</sup>

The good fence was essential to the farmer, as was indicated by the passages previously. In this passage we see its purpose. The fence is established a fence in good measure and well-prepared to protect the crop, and the crop is all planted properly before the rains came. The focus is on the result of the work done, a profit which will be shared among the family, and possibly a brighter future for the next generation.

### Keeping Out

The first purpose of the fence was to keep things out and this purpose is evident within this text. Some of the things that need to be kept out will be discussed in other parts of the investigation. One of those being the fence providing a clear line between what belongs to one, and what belongs to another. The prime purpose of fencing pasture was for keeping things out, mostly the farmer’s own animals.

“Let pasture be stored, and fenced about,  
and tillage set forward, as needeth without:  
Before ye doe open your purse to begin,  
with anything dooing for fancie within.”<sup>57</sup>

The pasture is fenced to protect it, and then ploughing of another field follows. The process in the period was to rotate fields through crops, leaving one fallow each season to regain some nutrients. Here, it is evident that the ploughed field does not need protecting, because it has nothing in it, thus it is without the fence. What is most interesting for our study is that the reader is instructed to “open your purse to begin” meaning that the fence should be paid for, thus well-constructed, before attending to anything within it. There is little point it going to the effort if an animal can simply walk in and destroy all the efforts made. Simple instructions following a formula, the same applied to all different types of crops. Consider the different types of food crops, and ingredient crops used, for all kinds of purposes.

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<sup>56</sup> *ibid.*, p.121

<sup>57</sup> *ibid.*, p.55



“Meete plot for a hopyard once found as is told,  
make thereof account, as of iewell of gold.  
Now dig it and leaue it, the Sunne for to burne,  
and afterward fence it, to serue for that turne.”<sup>58</sup>

A “hopyard” is a field for growing hops, an important ingredient for making different alcoholic beverages. Many small homes made their own. The process destroyed a portion of the potential contaminants in water, and used as a celebratory drink, and for sale if quantities were sufficient. This crop was prized, as indicated by it being a “jewel of gold,” and thus the instructions follow for how to tend to it, one of the latter parts being to fence it, clearly to protect it against wandering animals, at least primarily. Unfortunately, crime has been an issue since one person had more or less than another, or people were simply without.

### Thieves

“Keepe safe thy fence,  
scare breakhedge thence.  
A drab and a knaue  
will prowle to haue.”<sup>59</sup>

We have high walls, security systems, and locked doors. The 16<sup>th</sup> century farmer did not have the benefit of such things, nor likely could they afford them; so, it came down to fences. The well-maintained fence, a good fence, will do good to keep thieves and other knaves away. If the fence is maintained, there will be no breaks in the hedge for a knave to slip through and steal things from the farmer. If the fence is not, then the individual may fall prey to such individuals. Regarding thieves the same thing is advised, it is the maintenance of fences which keeps the thieves away.

“Keepe safely and warely thine vttermost fence,  
with ope gap and breake hedge do seldome dispence:  
Such runabout prowlers, by night and by day,  
see punished iustly for prowling away.”<sup>60</sup>

The uttermost fence is the boundary fence. It is encouraged this one is always maintained to protect against those that would prowl by night and day. A gap in the fence is an invitation to these individuals to enter the property. However, the end suggests the prowlers will always be caught and punished accordingly, which is not surprising considering the period and the feelings about criminals. The hold of the Church was breaking however, it had not broken by this time, so the prowlers would be punished one way or another.

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<sup>58</sup> *ibid.*, p138

<sup>59</sup> *ibid.*, p.54

<sup>60</sup> *ibid.*, p.62





There have been 11 selections from the 500, and not all of these are the entire sections of the original document. The focus has been on the use of fences from the document, and how they were constructed. There are other selections which appear throughout this discussion however, it was thought these might bring some light to some general practices and other areas which may have been missed with the focus on the fence itself, rather than what happens around the fence. The use of the fence is intimately connected to its nature, and this is vital to the discussion, and thus the selection of those constructions which have qualified as “fences.” To have a complete understanding of a phenomenon we must take a broader approach to the subject, see where it connects, to understand its true nature.

## Hedge

The hedge. The hedge today is mostly associated with expensive estates, topiary figures created from bushes, and winding mazes. How things do change. The hedge in the Medieval and Renaissance period was a standard form of fencing used frequently by the peasant farmer for its utility, and the seasonal supply of resources. However, before any discussion may be made of such concepts, the thing must be defined.

“A hedge or hedgerow is a line of closely spaced shrubs and sometimes trees, planted and trained to form a barrier or to mark the boundary of an area, such as between neighbouring properties.”<sup>61</sup>

The hedge took the place of a fence to mark the line between two properties. These were property lines, naturally-growing ones. They were a line of plants of suitable form, planted in a line and trained to stay in such a way by suitable husbandry, to form a boundary a fence. The specific type of plant that was used for this purpose would depend on what was available at the time. In some cases, the agriculturalist would train the branches to intertwine to make the hedge thicker and offer a more solid barrier. They had different uses besides just borders of fields.

“Hedges that are used to separate a road from adjoining fields or one field from another, and are of sufficient age to incorporate larger trees, are known as hedgerows. Often they serve as windbreaks to improve conditions for the adjacent crops, as in bocage country. When clipped and maintained, hedges are also a simple form of topiary.”<sup>62</sup>

When the subject of topiary arises in a conversation, most people think of animals and fantastic designs formed from a plant. Here, it simply means maintaining the hedge to keep it in correct form and prevent the seeds from it sprouting plants and creating a small forest. These hedges, grown tall, using trees, or larger plants were used as windbreaks to

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<sup>61</sup> Wikipedia “Hedge” in Wikipedia, Wikimedia Foundation Inc., 2023, <https://en.wikipedia.org/wiki/Hedge>, [accessed 30/3/2023]

<sup>62</sup> *ibid.*



protect crops, as in the indicated bocage<sup>63</sup> country. These obstacles became a headache for the Allies as they advanced during the latter part of the Second World War as German troops would hide in them, but this is not the history that we are currently concerned.

## History

“125. To make a ditch

If thou make thy dyche foure foote brode, than wolde it be two foote and a halfe depe. And if it be .v. fote brode, than .iii. fote depe, and so accordynge; and if it be fyue fote brod, than it wolde be double sette, and the 4 rather it wolde fence it-selfe, and the lower hedge wyll serue.”<sup>64</sup>

The ditch described above is four feet wide and two-and-a-half feet deep, or it could be five feet wide, and three feet deep. Depending on the size of the ditch will decide what sort of fence and hedge will be used with it. In the larger a double sized hedge is required, while in the smaller, former, size a lower hedge will suffice. This is the creation of a hedgerow as according to Fitzherbert’s *The Book of Husbandry* of 1534. This would imply that the hedge was invented in the Renaissance, however it was present thousands of years before Fitzherbert would sit down and determine the specific width of the appropriate ditch and size of hedge, and they were for the same purpose.

“The development of hedges over the centuries is preserved in their structure. The first hedges enclosed land for cereal crops during the Neolithic Age (4000–6000 years ago). The farms were of about 5 to 10 hectares (12 to 25 acres), with fields about 0.1 hectares (0.25 acres) for hand cultivation. Some hedges date from the Bronze and Iron Ages, 2000–4000 years ago, when traditional patterns of landscape became established. Others were built during the Medieval field rationalisations; more originated in the industrial boom of the 18th and 19th centuries, when heaths and uplands were enclosed.”<sup>65</sup>

The hedge and its use in gardens have an attachment to the 18<sup>th</sup> century in the spacious gardens of the nobility and gentry, and in the 19<sup>th</sup> century for the same reason. However, there is also a darker relationship to these times for the same reason, that being of enclosure, and the Enclosure Acts, which forced many peasant farmers off their farms and into already-crowded cities as the upper classes consolidated their holdings. These enclosures began in the Medieval and Renaissance period, but they are most recognised in the later.

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<sup>63</sup> Bocage – area of mixed woodland and pasture (Wikipedia “Bocage” in Wikipedia, Wikimedia Foundation Inc, 2023, <https://en.wikipedia.org/wiki/Bocage>, [accessed 4/8/2023])

<sup>64</sup> Fitzherbert, A. *The Book of Husbandry*, Reprinted from the Edition of 1534, Trübner & Co., Ludgate Hill, 1882., p.94

<sup>65</sup> Wikipedia “Hedge”



The hedge is recognised as having been used in the Neolithic period, where humankind began its long experiment with agriculture. These hedges were cultivated to protect crops and enclose the fields for protection, the same way they were used in the Medieval and Renaissance periods. This is where it began, the patterns, follow through to the Bronze Age, and then down on through. This is the history of the hedge, an early development in agriculture to protect crops, maintained in the Medieval and Renaissance period, also used as a fence, and maintained as such throughout its history. However, the protection of crops was primary.

“Spare meadow at Gregorie, marshes at Pask,  
for feare of drie Sommer, no longer time ask.  
Then hedge them and ditch them, bestow thereon pence:  
corne, meadow and pasture, aske alway good fence.”<sup>66</sup>

We see the importance of the seasons expressed in the instructions given to the reader. Then the importance of the fence put in place to protect the crops and the meadows. No simple fence put around these assets, but a ditch and hedge in combination. This combination is seen frequently in period documents on husbandry of the period. The hedges and ditches which were established in the Medieval and Renaissance period, where they were left, or continued and maintained, remain to this day.

“Many hedgerows separating fields from lanes in the United Kingdom, Ireland and the Low Countries are estimated to have been in existence for more than seven hundred years, originating in the medieval period. The root word of 'hedge' is much older: it appears in the Old English language, in German (*Hecke*), and Dutch (*haag*) to mean 'enclosure', as in the name of the Dutch city The Hague, or more formally's *Gravenhage*, meaning *The Count's hedge*. Charles the Bald is recorded as complaining in 864, at a time when most official fortifications were constructed of wooden palisades, that some unauthorized men were constructing *haies et fertés*; tightly interwoven hedges of hawthorns.”<sup>67</sup>

The history of the hedge has been dated back to the Neolithic, technology which has been brought through the ages to our present. The evidence of which still marks the country-side with some hedges being older than some of the solid structures which are around them. In examining the etymology of the word, again we see the word for hedge is derived from the idea of enclosure, the original purpose of the hedge. Then there is the discussion much later of the enhancement of palisades, a subject which is discussed later in this investigation, by using hedges of hawthorns. The idea of these being to increase the impediment of the enemy. Brambles and hawthorns were frequently used in hedges.

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<sup>66</sup> Tusser, T., p.114

<sup>67</sup> Wikipedia “Hedge”



“Now sowe and go harrow (where redge ye did draw)  
the seed of the bremble, with kernell and haw.  
Which couered ouerlie, soone to shut out,  
goe see it be ditched and fenced about.”<sup>68</sup>

The 16<sup>th</sup> century agriculturalist is advised to use brambles and hawthorns to build their hedge, to keep things out of their crop. There is a ditch and fence noted, the fence being the hedge, being discussed in the current examination, and the ditch into which the hedge is placed for extra protection. This process, the ditch and hedge, is seen frequently in this treatise on husbandry and informs us about the use of such things in the 16<sup>th</sup> century, but also tells us of its history.

The hedge has been an integral part of agriculture since the Neolithic, and while it is now used more for the purposes of decoration of our gardens, was used for the enclosure and protection of crops. When the hedge is discussed, it must be seen as a fence, in the periods of the Medieval and Renaissance eras, designed to keep animals and other individuals out. Also intended to divide one property from another. This is a cultivated fence, one from which resources were drawn on a seasonal basis.

## Animals

In discussing fencing, the question of animals must appear somewhere in the examination as animals were an essential part of the agrarian lifestyle of those who used fences. When it comes to this examination of fencing regarding animals, we must look at the purpose of the fencing, then how it changed. We can examine the relationship of fencing to animals, and indeed, the type of animals kept within or without fences.

## Purpose

Concerning animals there were two purposes for fencing in agriculture. “In agriculture, fences are used to keep animals in or out of an area. They can be made from a wide variety of materials, depending on terrain, location and animals to be confined.”<sup>69</sup> What determined the construction of the fences was decided by the resources available to the individual building the fence. The purpose, as indicated, was both to keep animals within the fences, but also to keep them out of areas as well. This was to change over the period.

“Historically throughout most of the world, domesticated livestock would roam freely and were fenced out of areas, such as gardens or fields of crops, where they were unwanted. Over time, especially where crop agriculture

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<sup>68</sup> Tusser, T., p.106

<sup>69</sup> Wikipedia “Agricultural fencing”



became dominant and population density of both humans and animals was significant, livestock owners were made to fence their animals in."<sup>70</sup>

Animals which were allowed to roam freely were fenced out of areas such as crops in earlier periods, while as such agricultural processes became dominant the restriction on animal movement increased, and resulted in animals being fenced in, for the same reason to protect crops. This is an aspect of agriculture which is recognized in several sources, especially much later in the period.<sup>71</sup> Another purpose for fencing animals was to protect them from theft, and to separate them from animals owned by other individuals. The process of this fencing of animals and the creation of such fences is described in period texts for different animals.

### Animals "Out" and "In"

*"There swineherd that keepeth the hog,  
there neatherd, with cur and his horne,  
There shepherd with whistle and dog,  
be fence to the medowe and corne.  
There horse being tide on a balke,  
is readie with theefe for to walke."*<sup>72</sup>

Here we have a discussion of different types of occupation and their relation to the land, along with discussions about how their animals are treated. For the focus of this discussion, in the middle there two lines about the shepherd and how the meadow and corn crop are both fenced to protect them. The corn crop needs to be protected against animals invading it, the meadow could be used for grazing but more likely for hay, so still needed to be fenced, separated from the crop. The purpose of the fence in this case is to keep the animals out of the crop. When it comes to cattle, the process of building fences has dual purpose.

*"Buie quickset at market, new gatherd and small,  
buie bushes or willow, to fence it withall.  
Set willowes to growe, in the steede of a stake,  
for cattel in sommer, a shadow to make."*<sup>73</sup>

Bushes and willow are instructed for use in fences. Then there is the instruction that the willow should be set to grow instead of a simple stake for tying the cattle, because the willow will give the cattle shade in summer. Here we have the indication of fences built for the purposes of defining an area, but also for future production of resources. The farmer always had to look ahead rather than only to his current situation. There is some indication

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<sup>70</sup> *ibid.*

<sup>71</sup> Dodd, A., p.28

<sup>72</sup> Tusser, T., p.155

<sup>73</sup> *ibid.*, p.106



that the cattle would be fenced within, at least in part. However, there were certainly pests which were to be kept out.

“Land meadow that yeerly is spared for hay,  
now fence it and spare it, and doong it ye may.  
Get mowle catcher cunninglie mowle for to kill,  
and harrow and cast abrode euerie hill.”<sup>74</sup>

The mole is a pest and could easily ruin a crop. Not only that its holes would be dangerous for cattle and horses; should one of these put a hoof in a leg could easily be broken. So, a mole catcher was employed to ensure that they were removed. This was also to protect the meadow, which was put aside each year for hay, fenced as previously indicated when discussing the shepherd.

Animals in period were an essential part of the agricultural process, for some they were simply meat, for others they supplied other resources such as milk from cows, or power to pull ploughs for horses; each had their purpose. There were pests which had to be guarded against, and the fence provided some protection against those, but also kept the animals either in or out of areas depending on what the farmer required. Fences were an essential tool for the farmer, especially in relation to the control of animals, even from the perspective of a side-product of the fence’s production.

## Wattle

When the modern Australian mind hears the word “wattle” they think of the yellow flower which is the floral emblem of Australia. A flower which is native to southeastern Australia and is correctly called the “golden wattle,” aside from its correct Latin terminology. However, this is not the focus of this discussion. The focus of this discussion is the construction method by which a common form of fence was created during the Medieval and Renaissance period and continues today.

## History

“Wattle fences may be one of the oldest types of fencing still in use today. They were used in England long before Medieval times. Traditionally the fences are built from straight, slender, flexible saplings up to one and a half inches in diameter. These “withies” were then woven between upright wood posts. Willow was the ideal wood because it is pliable and resists splintering, but other woods were used as well.”<sup>75</sup>

Weaving is one of the oldest methods of creating items. We most know weaving as a method for creating fabric, but baskets and other items were created from this same method.

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<sup>74</sup> *ibid.*, p.107

<sup>75</sup> Fiske, J. “Wattle it be?” in *In My Opinion: Sept. 15, 2020*, Digital Antiques Journal, 2020, <https://antiquesjournal.com/index.php/2020/09/14/in-my-opinion-sept-15-2020/>, [accessed 10/7/2021]



Wattle fences were created by a method of weaving saplings together, and much like any other kind of weaving it took skill to perform. The wood had to be of a particular age, and of a particular type. Evidence for this method is found way back in history.

“Evidence of wattle construction was found at Woodcutts Settlement from the British Iron Age, and the Roman Vitruvius wrote about wattles in his book on architecture, *De architectura*, but the technique goes back to Neolithic times.”<sup>76</sup>

The technique, as indicated, is simply weaving which has been adapted to a different purpose. Rather than using thread to make fabric, or reeds to make a basket, saplings are used to make a fence. Evidence for these wattles, these fences are found in images from the Medieval period as well. As with the other images of fences which are presented in other parts of this investigation, these are an artists’ impression of the fence, so often are a little too even, for the actual product, however these images do give us an idea of how they were used in the period.

“The major import of these illustrations is the confirmation of the archaeological evidence of simple interwoven wattle fences. In addition, they also confirm that the use of such fences is confined to the environs of the farmstead itself. In terms of useful detail of construction methods there is little beyond the arrangement of the final layer of rods which in artistic terms becomes a stylised feature of all such fences. The perfect horizontality of all the rods in the fences depicted denies the reality of the taper to be found in the natural state, a taper which has to be taken into account during building.”<sup>77</sup>

These wattle fences were used around the farm, for the purposes of keeping animals in or out of areas, as is noted in the discussion of the hurdle, below. The wattle fence is noted as kept close to the farmstead because it is not the strongest form of fence, its prime use is for a garden, the ditch and hedge was more used outside to protect crops and the like. Reynolds notes the artistic features of the illustration noting the perfect rods, rather than the characteristic thinning taper that would be found in the sticks used. Such discussions have indicated toward the construction of the wattle but have not given much detail, such will be discussed below.

## Construction

The construction method for the wattle has already been indicated in its history, and there is a reason that this method was chosen. “Weaving was one of the main Medieval ways of making things. Twigs were woven together to make fences and house walls or baskets

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<sup>76</sup> Wikipedia “Wattle (construction)” in Wikipedia, Wikimedia Foundation Inc., 2022, [https://en.wikipedia.org/wiki/Wattle\\_\(construction\)](https://en.wikipedia.org/wiki/Wattle_(construction)), [accessed 29/6/2022]

<sup>77</sup> Reynolds, Dr. P., p.2



and thread was woven into material.”<sup>78</sup> The exact same method was used to make house walls, as is indicated, this is where we get the expression “wattle and daub.” These twigs were woven together to create the wattle, but it was not just a matter of grabbing any bunch of twigs, and just starting.

“Wattle is made by weaving flexible branches around upright stakes to form a woven lattice. The wattle may be made into an individual panel, commonly called a hurdle, or it may be formed into a continuous fence. Wattles also form the basic structure for wattle and daub wall construction, where wattling is daubed with a plaster-like substance to make a weather-resistant wall.”<sup>79</sup>

The wattle and daub construction method has been mentioned, along with the single panel known as a hurdle. There will be quite a bit more detail about the hurdle further along as this was a most useful tool for the farmer, as an individual panel gave the farmer the ability to section off areas rather than the more permanent construction of the permanent fence. The woven lattice was formed from flexible branches woven together. The process was important to ensure it remained together.

“The construction of wattles starts with the uprights, whether they are set into a frame or placed into the ground. Starting at the bottom, flexible willow shoots, called withies, are woven in and out of the uprights (staves).”<sup>80</sup>

The staves were put into a frame or the ground so they would not move while the withies were threaded through. If the staves were not secured in the ground, and a person began to thread the withies, the whole thing would have moved, and the construction would have or been as solid. Of importance was the selection of the correct saplings to use for this creation, and two types of trees were found to be the best: willow and hazel.

“From the many illustrations in the mediaeval manuscripts the typical fence within the immediate environs of the farmstead was one of stakes interwoven with hazel (*Corylus avellana*) or willow (*Salix* sp.) rods. Such a fence depends upon the tension of the interwoven rods around the uprights for its rigidity and strength. If the spacing between the uprights is small, between twenty and forty centimetres, only very flexible wands rather than rods can be used. In the case of hazel, such wands would be no more than two or three years old. The resulting fence would be very closely woven and quite dense but would have a relatively short life span because the wands would dry out quickly and become extremely brittle.”<sup>81</sup>

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<sup>78</sup> HistoryOntheNet “Medieval Farming and the Farming Year” HistoryOntheNet, 2019, <https://www.historyonthenet.com/medieval-farming-the-farming-year>, [accessed 10/12/2021]

<sup>79</sup> Wikipedia “Wattle (construction)”

<sup>80</sup> *ibid.*

<sup>81</sup> Reynolds, Dr. P., p.1





Placing the rods against one another was not enough, they had to hold against one another. There had to be a certain amount of pressure to hold the construction solid, otherwise the wattle would not be rigid, and would not work well for keeping animals out, and not work well in the construction of wattle and daub. Hence the rods had to be flexible enough to bend and not break, but not so flexible that there was no tension. Hazel and willow were found to be the best, having the properties required for this construction, however they had to be of a certain age, or they would become brittle quickly. Every element of the construction had to be carefully considered. Single wattles, called hurdles, were used for a variety of purposes.

## Hurdle

The word “hurdle” in the modern imagination gives rise to the image of races where an individual must jump over a certain number of gates set at a certain height, for a certain distance. The hurdle in the following discussion, is not this form of hurdle. The hurdle being discussed is a form of gate, or fence section. Frequently the hurdles in the race form are referred to as “gates” so there is a connection found here. However, to eliminate confusion in our discussion it is necessary to have a definition.

## Definition

“A hurdle (UK English, limited US English) is a moveable section of light fence. In the United States, terms such as “panel”, “pipe panel” or simply “fence section” are used to describe moveable sections of fencing intended for agricultural use and crowd control;”<sup>82</sup>

The “crowd control” in this instance refers to the control of animals, rather than human beings, for agricultural use.<sup>83</sup> This hurdle is a moveable form of fence intended to fence in a certain part of the property, on a temporary basis, for the storage of crops or the herding of animals. The use of such hurdles is discussed in more detail as this discussion proceeds. The necessary part here is that they are a light, moveable section of fencing, and like many things they are older than many would give credit.

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<sup>82</sup> Wikipedia “Hurdle” in Wikipedia, Wikimedia Foundation Inc., 2022, <https://en.wikipedia.org/wiki/Hurdle>, [accessed 29/6/2022]

<sup>83</sup> The crowd control fences used for human beings are typically called “crowd control barriers.” These are not a subject which will be covered in this investigation.



## History

“Hurdles have, in fact, been made since the Neolithic period and their presence in all succeeding periods is unquestioned. However, it is not clear exactly when or where the traditional building style of the hurdle of the eighteenth and nineteenth century actually began. In effect, the hurdle is a simple portable fence panel usually c.1.80m long and 1.00m to 1.50m high.”<sup>84</sup>

The hurdle, like many agricultural inventions, made their appearance in the Neolithic Age, thus thousands of years before the Medieval period and continued use since that period onward. Where or when the style of the hurdle found in the Medieval and Renaissance period, or that after, was invented is unsure, however such evidence is present in images from the period and other archaeological evidence. We now have a definition and some of their history, and we have a little about how they were made. This is vital as it opens the discussion to many other aspects of examination concerning this agricultural tool.

## Construction

“Traditional hurdles are made from wattle, usually of hazel or willow. Hurdle-making is a traditional woodland craft, made by placing upright sticks in holes in a log and weaving split branches between them. Historically they were used to pen livestock or to separate land in open field systems, but they are now popular as decorative fencing for gardens. In medieval England such a hurdle was sometimes used as a makeshift sledge, to which a prisoner was tied to be dragged behind a horse to a place of execution.”<sup>85</sup>

The subject of the wattle, which is the construction method, in part, encompasses the subject of the hurdle, and thus is discussed partly apart from the hurdle, but also including the hurdle, for this is the way that they are. The method of the wattle is how the hurdle is constructed, weaving branches into one another, not unlike how fabric is created. The uses for the hurdle were many, as can be indicated by the use as a sledge for dragging a condemned prisoner to their execution. This discussion will be made further along. However, there is primary evidence which must be examined.

“Incidentally there is little real evidence for the wattle hurdle in the illustrated manuscripts, although occasionally rods in the round are shown completely encircling an end stake of a length of fencing. The question arises because it is practically impossible to encircle the end stake unless the hazel rod is split longitudinally. In order to encircle the end stake of a fence or sail of a hurdle to hold it into the fence, the split hazel rod is twisted through three hundred and sixty degrees as it is bent around the upright. The fibres in the half or split rod twist around each other without snapping

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<sup>84</sup> Reynolds, Dr. P., p.3

<sup>85</sup> Wikipedia “Hurdle”



the rod. In a complete rod in the round the opposing forces of the fibres cause the rod to snap."<sup>86</sup>

The problem with artists' impressions, especially as found in these illuminated manuscripts, as is indicated in this investigation, is that the artist will illustrate a "perfect" version of a thing, or simply something that could not have existed. This does not mean that we should doubt the presence of a thing due to such flaws in the manuscripts, just examine them with eyes understanding the situation. This idealised situation is found with many depictions of several situations in these manuscripts, and we can still treat them as primary evidence, just with the understanding that this is the artist's impression, and their stylistic impression.

"Because the butts of the rods are always laid against the inside of each stake they are invisible from the other side of the fence which presents a completely smooth finish. Perhaps it is this effect which gave rise to the artistic stylisation so commonly depicted in the illustrated manuscripts."<sup>87</sup>

Regarding the construction of the hurdle, a discussion of the wattle is where the information will most reliably be found. This was a careful process, certain branches had to be chosen, certain wood had to be chosen, and before all this, the trees had to be planted and prepared for the purpose, as will be found in another part of this investigation. With the construction of the hurdle discussed we will now move on to the agricultural use of the hurdle.

Use

"The sheep grazed on the pasture during the daytime, and were moved down to the arable land for the night, where they were 'folded' on the fallow fields, which would be fertilised by their dung. Folding involved the use of hurdles to make temporary fences to pen in sheep overnight, the pens being moved to a new position each successive night to ensure an even spread of manure over the fallow prior to the next sowing."<sup>88</sup>

The sheep were placed on pasture during the day and then moved on to another field for the evening. The sheep were kept from the pasture by being fenced in with temporary fences made from hurdles, sections of temporary fences. This was one of the uses of the hurdle, to keep animals in one place, and then to move them about, to keep them penned for a period. This was the advantage of hurdles they were temporary and thus moveable. The same application could be used for other temporary fencing purposes. However, as indicated previously, the hurdle had other purposes. "Hurdles were also used for crossing rivers at fording points. Dublin's name in the Irish language means "ford of

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<sup>86</sup> Reynolds, Dr. P., p.2

<sup>87</sup> *ibid.*, p.5

<sup>88</sup> Dodd, A., p.7



hurdles.”<sup>89</sup> The same hurdles could also be used for temporary walls, or even the foundation of permanent walls, hence wattle and daub, as indicated previously. Both the construction of the wattle and the hurdle required wood, and they were the result of an adaptation, an issue with wood shortages.

## Wood Management

“Tudor England did not have new hybrid fast growing trees: It had a severe tree shortage. This was caused partly by the need to house a population that was growing rapidly after having been decimated by the Black Death, partly by the need for more pasture to feed it, partly by the huge expansion of the Royal Navy, and partly by the heavy demands of the iron smelting industry.”<sup>90</sup>

Fences required wood, but so did a whole host of other industries, and the concerns of the small farmer were smaller than those of the Royal Navy, and the smelting of iron. So, the farmer had to resort to other methods. The hedge and ditch was an old method, as was using stone walls, but the hedge took time to grow, and the stone wall required certain resources. So, the agrarian farmer had to turn to other sources. To make the best of what they had. “With all these demands on a limited (and shrinking) resource, every inch of woodland had to be closely managed to be as productive as possible, and every tree had to have a plan and a purpose.”<sup>91</sup>

## Coppicing

Coppicing was the process of growing saplings and taking them from old stumps of larger trees. They would restrict the size of these trees by cutting them. A management process was used to enable the maximum use of each resource they had to its maximum.

“Once the saplings were cut, the stump began producing the next crop – to be harvested in another 15 years. A tree might take 60 to 100 years to grow to a useful size: in 100 years a stump could produce seven or eight harvests – far more productive than nature left to herself!”<sup>92</sup>

Through careful management, the use of coppicing, a single stump could produce many more harvests than if allowed to grow. While these smaller trees were not the full size of the original tree, they were useful. The farmers were not interested in building ships or grand buildings, their immediate concern were fences, and other smaller projects. These saplings were suited to the purpose.

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<sup>89</sup> Wikipedia “Hurdle”

<sup>90</sup> Fiske, J.

<sup>91</sup> *ibid.*

<sup>92</sup> *ibid.*



“saplings would become tall mini-trees, six- or eight-inches in diameter at the base. These were harvested for use in building, fencing, firewood or anything that did not require a major post or beam.”<sup>93</sup>

While the larger trees were of greatest use due to their thickness, the smaller trees also had their uses, as indicated. Cutting these during pruning each year produced smaller trees, which would seem premature and a waste. However, even this process had a purpose. Every action taken by the farmer in this period had a purpose.

“Coppiced trees needed annual pruning during which thinner saplings were removed to encourage the larger ones to grow even faster. These prunings, of course, were not wasted. They were put to good use – particularly in making wattle fences.”<sup>94</sup>

The wattle fence, which is the prime focus of this discussion, had the advantage that it used less lumber, because it could use the smaller prunings, so no wood wasted. Even the smallest, or the most bent piece could be used as firewood. The standard fence we are so familiar with, with its palings used substantially more wood, which the farmer simply could not afford. The wattle fence avoided this cost, and another agricultural method gave them access to even more resources.

#### Pollarding

“Pollarding was more productive than coppicing because it allowed meadow grass to grow around the trees. Pollarding was basically coppicing that was six or seven feet off the ground. The original tree was cut off about six feet up the trunk, not felled to ground level. Cattle or sheep could graze on the grass that grew around pollarded trees, and the pollarding kept the young twigs out of the reach of hungry animals.”<sup>95</sup>

Pollarding was more productive because it allowed the farmer the same resource as coppicing, but also gave the animals something to eat at the base of the trees. The animals could not eat the new shoots off the trees because they were too high off the ground. Grass does not tend to grow around felled trees because the felling tends to kill it, especially with the waste material left behind. Trees pull nutrients from the soil, hence there is often bare patches around their exposed roots, likewise, their leaf-litter tends to kill grass when it's too thick. The advantage of pollarding was clear, all the wood and grass as well.

Many aspects of the wattle have been discussed, it was an essential part of Medieval and Renaissance agriculture and saw many different uses, both in the primary focus of this investigation, as a fence, but also in other forms of construction, and other uses. We must

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<sup>93</sup> *ibid.*

<sup>94</sup> *ibid.*

<sup>95</sup> *ibid.*



think broadly when we examine things and consider all the possibilities to ensure we appreciate the presence of such phenomena.

## Roundpole fence

*“The roundpole fence is a wooden fence typical to the countryside in Sweden (in Swedish: gärdesgård), Norway (in Norwegian: skigard), Finland (in Finnish: riukuaita, risuaita or pistoaita) and Estonia (in Estonian: roigasaed or teivasaed).”<sup>96</sup>*

The roundpole fence is made from round poles placed together, then a diagonal is placed and bound to it, connecting it to another pair of vertical poles, where further diagonal poles are placed in between. This requires an abundance of wood to create and is a type of fence typical to Scandinavian countries. The oldest form of this fence is found in Sweden. “The oldest known roundpole fence dates back to the Iron Age. The oldest known archeological find of a roundpole fence in Sweden was uncovered in Leksand.”<sup>97</sup> This is a rather complex form of construction for a fence, so it is of little surprise it was created in the Iron Age, or at least this is the earliest evidence, its use and construction will tell us more.

### Construction and Use

*“It is normally made from unbarked and unsplit youngish trees, mostly spruce or juniper. Roundpole fences have traditionally been used as a means of fencing off animals rather than marking property boundaries.”<sup>98</sup>*

The roundpole fence has a specific purpose being the fencing off animals rather than marking property boundaries. Considering the amount of wood taken to create such a fence, there is no surprise it is not used for boundary marking as this would take a lot of wood to achieve. This is not to mention the labour involved in creating such a structure.

*“The fence construction generally consists of 3 or 4 parts: uprights put together in pairs, round poles laid horizontally or diagonally between the two uprights, and binding cord usually made from young saplings - and sometimes also diagonal bracing. The fence is usually 1.5–2 metres tall. The fencing can also incorporate specially made stiles and gates. The fence requires an abundance of wood, which was never a problem in Scandinavia, as the trees generally came from the owners' own forests in the process of thinning them out.”<sup>99</sup>*

The process of creating the fence is explained in some detail, but there are other important details to be noted. The fence can incorporate other elements of use to the farmer,

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<sup>96</sup> Wikipedia “Roundpole fence” in Wikipedia, Wikimedia Foundation Inc., 2022, [https://en.wikipedia.org/wiki/Roundpole\\_fence](https://en.wikipedia.org/wiki/Roundpole_fence), [accessed 29/6/2022]

<sup>97</sup> *ibid.*

<sup>98</sup> *ibid.*

<sup>99</sup> *ibid.*



making this form of fence of great utility, not just as a means of fencing animals, but also for controlling and husbanding them as well. The fence is quite impressive allowing for larger animals to be controlled within the boundary created by the fence, which is important considering the native animals of the area. The abundance of wood in Scandinavia allowed such a fence to be created, and the process of creating the fence allowed the thinning of forests, allowing easier access. The entire process assisted the farmer in some way or another. Sometimes the rails between the uprights are split logs, so the term “roundpole” is a little misleading, however the uprights are always young trees of reasonable thickness.<sup>100</sup>

The “roundpole fence” is another example of the farmer adapting to their situation. With an ease of supply to wood, such a larger form of fence was possible. Likewise, this form of fence was more suitable for handling the larger animals such as caribou and reindeer, which the farmer was more likely to deal with. Further, the process of collecting suitable trees from the forest thinned the forest out allowing easier access to other parts of the forest for other purposes, such as hunting, and transportation. When we look at the construction of a fence, we need to look deeper, not only to its purpose, but to what surrounds it, the reason that material was chosen, and how the user of the fence adapted to their environment using that type of fence.

## Military

The military have been using fences as defensive works for the protection of military camps and other such similar enclosures since the ancient period. For permanent structures walls were often created, however the fence was more common, and often added to these structures as an additional defence. The Roman army had all their legionaries carry a single stake with them so a fence could be created around their camp when they stopped during the evening, from which we derive the word palisade. This is a subject around which the discussion of military fences will be formed.

## Palisade

When discussing the palisade, it is a military fence. “Palisade derives from pale, from the Latin word *pālus*, meaning stake, specifically when used side by side to create a wood defensive wall.”<sup>101</sup> That “pale” is what the Roman legionaries carried with them, and when they camped, they were placed closely together often bound with some kind of rope to form a defensive wall of stakes around their encampment. It is also the origin of the paling fence, so commonly seen on suburban streets. The palisade in its essential form is a wall of stakes.

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<sup>100</sup> *ibid.*

<sup>101</sup> Wikipedia “Palisade” in Wikipedia, Wikimedia Foundation Inc., 2022, <https://en.wikipedia.org/wiki/Palisade>, [accessed 29/6/2022]



“A palisade, sometimes called a stakewall or a paling, is typically a fence or defensive wall made from iron or wooden stakes, or tree trunks, and used as a defensive structure or enclosure. Palisades can form a stockade.”<sup>102</sup>

The stockade is another consideration, closely linked to the palisade as to create a stockade, you create palisades which link together. “A stockade is an enclosure of palisades and tall walls, made of logs placed side by side vertically, with the tops sharpened as a defensive wall.”<sup>103</sup> The word stockade in military terms in the current era is more known for being a short-term, sometimes long-term place of incarceration. In its essential form it is a defensive location, created by a wall of sharpened logs all placed closely together. Sometimes these stockades were made more permanent.

“Builders could also place stones or thick mud layers at the foot of the stockade, improving the resistance of the wall. From that the defenders could, if they had the materials, raise a stone or brick wall inside the stockade, creating a more permanent defence while working protected.”<sup>104</sup>

The idea of the palisade and the stockade is one which is not a new thing and certainly was not an invention of the Medieval or Renaissance period. It has already been indicated that the Romans used palisades to protect their camps every time that they marched, they also did the same thing for more permanent camps and forts as well. They erected stockades within these structures as well. Such technologies only spread around to other civilisations to be used and enhanced.

“Both the Greeks and Romans created palisades to protect their military camps. The Roman historian Livy describes the Greek method as being inferior to that of the Romans during the Second Macedonian War. The Greek stakes were too large to be easily carried and were spaced too far apart. This made it easy for enemies to uproot them and create a large enough gap in which to enter. In contrast, the Romans used smaller and easier to carry stakes which were placed closer together, making them more difficult to uproot.”<sup>105</sup>

The comparison between the Greeks’ and Romans’ use of palisades is interesting as is the comparison between their effectiveness. To be effective a palisade had to have the stakes close together so the opponent would be faced with the spikes on top of the pales regardless of where they tried to go. If they were too far apart, it would also be easy for an opponent to find a single pale to uproot and create a weakness in the wall, whereas if they

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<sup>102</sup> *ibid.*

<sup>103</sup> Wikipedia “Stockade” in Wikipedia, Wikimedia Foundation Inc., 2022, <https://en.wikipedia.org/wiki/Stockade>, [accessed 29/6/2022]

<sup>104</sup> *ibid.*

<sup>105</sup> Wikipedia “Palisade”





were closely packed, finding a single weak one would be substantially more difficult. Thus, the construction of a proper palisade is of note.

*“Typical construction consisted of small or mid-sized tree trunks aligned vertically, with as little free space in between as possible. The trunks were sharpened or pointed at the top, and were driven into the ground and sometimes reinforced with additional construction. The height of a palisade ranged from around a metre to as high as 3–4 m. As a defensive structure, palisades were often used in conjunction with earthworks.”<sup>106</sup>*

The closer the trunks could be placed the less gap in between, the less chance there would be for an opponent to separate them and find a weakness. They were driven into the ground both to support them and keep them upright but also to strengthen them. The height of a palisade could be enhanced through earthworks, a ditch before the palisade would increase the height of the palisade from the ground and make it even more difficult to get over. Additional pales driven into the ground would make breaching this ditch even more difficult, as would other similar obstacles.

The use of the fence as a military obstacle cannot be understated. It has been used since ancient times and is still being used. Now we have chain-link fences with razor-wire atop of them, but the purpose is still the same, and they work in the same way as the palisade created by the Romans thousands of years before. We now have different obstacles, but the fence still has prominence in defending military installations and camps. Defensively the roll of barbed, or razor wire still serves the same purpose as the obstacles and fences of the Ancient and Medieval world.

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<sup>106</sup> *ibid.*



## Conclusion

The purpose of this investigation was a discussion fencing from the Medieval and Renaissance period, to examine the types, construction, and use of these fences in this period of history. This was not meant to be a complete, all-encompassing discussion of the subject as there are many different aspects of fencing which could be discussed which were not mentioned in the discussion.<sup>107</sup> The purpose was to bring a greater understanding of this form of structure to the reader, so they might have a greater appreciation for the types and forms of fencing which were used during this period.

A definition of fencing founded on the use of the structure rather than the construction method or material of the structure was most useful as it allowed an expansion of the types of structure which could be included in the discussion. Were the definition restricted to only those made of wood, or other such fibrous materials, then the wall, which was most definitely used as a fence, would have been excluded from discussion. Were the definition restricted only to those used for agricultural purposes, the brief discussion of military uses of fences which appears at the end of this investigation would have been excluded. A broader definition gave a greater understanding of the concept of fencing and what it entailed.

Often, we believe we have discovered something, and then with some research find out that the same was found by our ancestors some years, even centuries before. The same can be said for some forms of fencing. In several aspects of this discussion, it can be said that we underestimate our forebears, not only in the different forms of structure they create, but also their understanding of the resources of the land, and the importance of living with the land. The concept of ecology, while it may not have been known as a scientific concept to the medieval farmer it was certainly used. They worked with the land, they had to, to ensure that there were sufficient resources for the next season, the next year, and the year after that.

Evidence for types of fencing and their use is found in images, which are found in documents and art. These give us a pictorial representation of the structures which were used in the day. At least, they give us the artists' impression of those structures which were used in those days. Often the artist, being of their nature will make the fences too perfect, lacking the natural odd nature of the sticks and wood that the fences are built. However, the structures are still present, and we can learn from these. Further, there are documents from the period which tell us how fences were used. These are a prime source of understanding how important fences were to the farmer, and to others who may just be creating a garden.

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<sup>107</sup> One of the types of fencing notably absent from the discussion is the "list fence," the barrier which is placed around a tournament field. I chose not to include this one as it was quite a bit different from the rest, and besides it would be better suited to a discussion of its own.



Each must be investigated for what they can give us to create understanding not only about the construction, but about the use of these fences.

Walls are most often made from stone and are most often excluded from the concept of the fence however it is the use of this structure which is of importance. The method of construction has been seen in walls of all kinds from those of city walls, to those of great castles, but these walls were used for the protection of crops, and the penning of animals, primarily the former, however a gate could have been made of wood to allow access and confining. These walls are in evidence even in our contemporary era across England, for example, still standing as they did in the Medieval and Renaissance period, still often being used for their original purpose. The use of a structure or object that defines it.

For those who did not have easy access to stone to make walls, and did not have easy access to wood, or simply could not afford it. The combination of hedge and ditch was always available. The concept of the hedge as a fence is well-documented in the period sources from this time and advised in many of them. It is one of the most common combinations used for fencing purposes. Used both for the purposes of protecting crops and defining the lines of property, the hedge had another use in that it was a living fence, thus produced more resources, giving the farmer who was able to plant one an advantage. The ditch that went with the hedge enhanced the hedge, making it seem higher than it was, in a similar way that a trench before an obstacle made it more difficult for troops to pass through, one civilian the other military, the same principle is used.

The wattle is a construction method which is based on weaving. Sticks were woven into one another to form the wattle. In the case of a fence uprights were placed in the ground or some form of a holder while the horizontals were woven into it to create the fence. The same technique was used to create walls in the technique of wattle and daub. In the case of the hurdle, individual panels were made to create a moveable fence, which was useful for either keeping things in or keeping them out. For the most part, the things that were kept in or out were animals, a great asset on any farm, but one that had to be managed properly.

Animals are a part of farms because they supply resources to the farm in different ways. There are the direct products of the animals, wool from sheep, milk from cows and so forth. There are also the nutrients which come from their dung, their droppings, which a farmer could carefully have the animals naturally drop around their paddocks. This was achieved primarily using hurdles where they were available, and other temporary fencing where it was available. The animals mostly ate from the fallow fields, the fields were cycled through the years and seasons, to allow them to recover.

The final part of the investigation ended with a discussion of two types of fencing one civilian and the other military. These are unique for different reasons. One because the



type of fencing was most suited to the area in which it was used. The other because it is fencing used for a different purpose. Roundpole fencing is found in the Scandinavian countries where there are ample wood resources because this kind of fence requires it. They also have some larger animals which they keep which require this sturdier, higher form of fencing, the use suits the purpose. This is unlike the other forms of fencing which have been presented, aside possibly from the paling fences found in the art.

Military fencing is simply fencing which has been changed and turned to suit a different purpose. The same palisade with little modification could be used as a civilian fence, however it does use a lot of wood. The same stockade could be turned to build a home, and in the American frontier some of the same construction methods can be seen. Again, these construction methods date back before the Medieval period, to at least the Roman Empire, if not before, and with the same purpose. The purpose with fencing is always to keep something in or keep something out. The “stockade” has come to be known as a sort of temporary prison, thus keeping something in; the palisade with its additional defensive ditch and other obstacles are designed to keep people out, or at least limit those who would come in. The same sort of fences as are seen today, if in a different form.

I originally began this project so I could present a paper on “period fencing,” to acknowledge that I knew something about the kind with swords, but also the kind which is presented in this paper. However, through the process of writing this paper, I gained a greater understanding of the agrarian life-style of the farmer of the Medieval and Renaissance farmer, their ability to use what they had to hand to their advantage. More to use what they had to hand to make do and even to thrive. There were certain aspects in this that showed that the farmer understood the land, and how to live with it, so it would survive with them, even an understanding of ecology.

The fence started as a structure which needed to be defined, isolated from other structures which were similar so it could be identified, classified, and then examined in detail. Through the investigation I found it was more important to examine the purpose of the structure rather than its physical form to decide whether it was a “fence” or not. Further, there were other aspects which were associated with the fence which also needed to be discussed, to understand the entire picture that was beginning to evolve through the investigation. There is a commonality among all fences, they have a purpose of either keeping things in or keeping them out. Their structure and materials may be different, but so long as they are serving this purpose, they could be called a “fence.”



## Appendix 1: Of Fencing the Garden

Below is an excerpt from Markham's *The English Husbandman* concerning the appropriate fencing for a garden-plot. This is a private garden, rather than an agricultural project that a farmer might endeavour to produce. This discussion is interesting from several perspectives. It lays out the preferences for the preferred type of fence to be used for the garden, and then gives options should the preferred method not be available. What will be noted in this discussion is that many of the previous forms of fence are present in this discussion. Finally, there is a form of paling fence, different from the standard in that it is bound by the presence of other plants and reinforced by a ditch, in much the same way as the hedge was in other examples. This is a growing fence, much like the hedge.

“Of fencing the garden. Now lastly for the fencing or making priuate the garden-plot, it is to be done according to your abillitie, and the nature of the climate wherein you liue: as thus, if your reuenewes will reach thereunto, and matter be to be got, for that purpose, where you liue, then you shall vnderstand that your best fence is a strong wall, either of Bricke, Ashler, rough-Stone, or Earth, of which you are the best-owner, or can with least dammage compasse: but for want either of earth to make bricke, or quarries out of which to get stone, it shall not then be amisse to fence your garden with a tall strong pale of seasoned Oake, fixt to a double parris raile, being lined on the inside with a thicke quicke-set of white-Thorne, the planting whereof shall be more largely spoken of where I intreate of fencing onely. But if the place where you liue in, be so barraine of timber that you cannot get sufficient for the purpose, then you shall make a studde wall, which shall be splinted and lomed both with earth and lime, and hayre, and copt vpon the toppe (to defend away wet) either with tile, slate, or straw, and this wall is both beautifull, and of long continuance, as may be séene in the most parts of the South of this kingdome: but if either your pouerty or climate doe deny you timber for this purpose, you shall then first make a small trench round about your garden-plot, and set at least foure rowes of quicke-set of white-Thorne, one aboue another, and then round about the outside, to defend the quick-set, make a tall fence of dead woode, being either long, small, brushy poales prickt into the earth, and standing vpright, and so bound together in the wast betwéene two other poales, according to the figure set downe, ... being so heigh that not any kinde of Pullen may flie ouer the same, or else an ordinary hedge of common woode, being beyrded vpon the toppe with sharpe Thornes, in such wise that not any thing may dare to aduenture ouer it: and this dead fence you shall repaire and maintaine as occasion shall require from time to time, till your quicke-set be growne vp, and, by continuall plashing and interfouldings, be made able and sufficient to fence and defend your garden, which will be fiue or seauen yeeres at the most, and so continue with good order for euer.”<sup>108</sup>

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<sup>108</sup> Markham, G. *The English Husbandman*, T.S., London, 1613, p.136



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