

Pre-Seventeenth Century English Bacon: Reconsidering a Staple

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Abstract: This research fills a gap in historical food scholarship by examining 56 medieval and early modern cookery books published between the thirteenth and seventeenth centuries in England and western Europe to determine methods used in curing bacon prior to the seventeenth century. It affirms important differences in bacon making from our modern versions and suggests how pre-seventeenth century recipes might taste.

Key Words: bacon, lard, pork, meat curing, cookbooks, Middle Ages, early modern period

Introduction

Bacon was the main meat eaten in England for the entirety of the thirteenth century (Woolgar 2006: 91), however little is written of its medieval history. I have not yet discovered an academic overview of what bacon was like before the commercial production of the eighteenth century, except for brief, though competing, references to the creation of pre-modern bacon in the work of food historians Peter Brears (2008) and Ken Albala (2003). When Brears discusses the creation of bacon in *Cooking and Dining in Medieval England*, he states only that “there appears to be no evidence for the use of saltpetre, sugar or smoking in medieval meat preservation, only salt,” overly relying on a presumed absence of evidence (148). In contrast, in *Food in Early Modern Europe*, Albala appears to lump pre-eighteenth century creation of bacon with later techniques that came to dominate in the modern era (98):

Smoke dries food, and in combination with a previous soaking in brine, it prevents bacteria from forming and flavours the food as well. The addition of saltpeter (potassium nitrate) to the brine gives many smoked products their pinkish color. Pork products such as ham, bacon and sausage were the most common foods to be smoked, but fish and cheeses could be too.

Like Albala, most histories of bacon, both academic and popular, begin with commercial production in the eighteenth century (Dikeman and Devine 2014: 58, van Tonder 2016).

The exact nature of the production and form of pre-seventeenth century bacon can be ascertained by comparing cookery books, personal journals, household accounts, and other literature across the European medieval and early modern periods (thirteenth through seventeenth centuries). The deeper understanding of bacon-making before the seventeenth century gained through this primary source analysis can change how we see the culinary history of this ingredient.

Bacon has been a mainstay of English food since the earliest English cookery books. Its production experienced a renaissance during the eighteenth and nineteenth centuries, with an incredible amount of adaptation resulting from late seventeenth-century culinary innovations. Major changes in meat curing technologies in the twentieth century have led to our modern concept of bacon, but this modernization and

innovation separate us from bacon's historical identity. When we read in "Forme of Cury" that beans should be eaten with bacon (Master-Cooks 1390: f12r; Pegge 1780: 11), do our modern sensibilities understand what that means? What was bacon like before the seventeenth and eighteenth centuries? Why does a recipe in *Noble Boke Off Cookry* require the bacon to be soaked before use: "tak a litill lard of salt bacon well sodene" (take a little lard of salt bacon well soaked; Napier 1882: 88)?

Frequent references in pre-seventeenth century sources to bacon as a food associate it with the poor in England (Moisà 2001: 83), while other records show it was also eaten in great quantities by the rich (Woolgar 2006: 76). It is specifically mentioned, for example, in the records of the Earl of Derby as a food he ate for breakfast (Dobrowolski 1988: 293). Bacon's use by both rich and poor demonstrates that it was a staple for all classes in England throughout the Middle Ages and into the early modern period. While identifiable as a pork product, however, it was much drier than modern bacon, having more in common with prosciutto, a type of dry cured and aged, but not smoked, ham (Dikeman and Devine 2014: 550), and there were marked differences in preparation, storage, and use as well.

Methodology

As bacon is generally indistinguishable from other types of pork in the archaeological record (Woolgar 2006: 73), I have turned to the written record as a better source of information on bacon. I accomplished my research into English bacon by examining 56 cookery books from the thirteenth to the seventeenth centuries and analyzing their use and treatment of bacon and preserved lard. I used 38 from the British Isles (29 from the thirteenth through the sixteenth centuries, 9 from the seventeenth century) and 18 from Europe (fourteenth through early seventeenth centuries), including Denmark, the Netherlands, Spain, Germany, Prussia, Italy, and France. I based my selection criteria on the availability of sources and translations, and found Henry Notaker's *Printed Cookbooks in Europe, 1470-1700: A Bibliography of Early Modern Culinary Literature* (2010) especially helpful. I analyzed each text for its use of bacon, including the descriptions of the ingredient and methods of preparation. Bacon is mentioned 297 times in 35 of the 56 cookery books I examined, from British Library (B.L.) MS Additional 32085 (Hieatt and Jones 1986) at the end of the thirteenth century through to *The Accomplisht Cook* in 1685 (May 1685), while lard, sometimes indistinguishable from bacon in its creation and use in cookery books, is referenced 548 times in 46 of the cookery books. I then examined the use of bacon in medieval fiction and writings to provide a fuller understanding of its uses and methods of preparation. In addition, I conducted experimental historical re-creations utilizing the same methods I found described in these works for curing and cooking bacon to compare the descriptions of preparation with the descriptions of the final product in various texts.

In order to explore this subject, I first expand on the primary sources I selected for analysis and discuss the societal context in which bacon was consumed in England. Then I provide a working definition that is broad enough to encompass what bacon was like in pre-seventeenth century England by exploring the earliest literary references to bacon in England, and examine cookery books from the thirteenth to the seventeenth century to determine what bacon of the time was and how it was made. Finally I tie my findings to experimentations with bacon along with secondary sources to examine in detail the creation of pre-seventeenth century bacon.

Cookery Books

The cookery books I examined are collections of printed or hand-copied recipes that form part of a larger work or are bound into stand-alone volumes. They frequently “contain medical or household recipes in addition to culinary ones” (Kernan 2016: 7), though a cookery book generally is one that is at least two-thirds cookery (Notaker 2010: 2). Although there are cookery books from before the fourteenth century, it is in the fourteenth century that cookery books become a recognizable genre in England (Kernan: 9), as the advent of printing led to a boom in their production.

The primary purpose of cookery books was to guide a cook through making an unfamiliar or only slightly familiar dish as aides-mémoires (Kernan: 27) as well as being a method of instruction on new recipes; their authors typically assume the cook knows certain processes and does not need all steps spelled out. Cookery books also served aspirational purposes, however. With the rise of professionals and the expansion of the gentry in the fifteenth century, these books were a way to learn the eating habits practiced by the nobility and to emulate them (83-84). It is important to remember that cookery books are generally prescriptive rather than descriptive, so although they give us hints of what could be happening in cookery at the time, they are not definitive.

Not all cookery books were printed. As Sarah Kernan explains in her 2016 doctoral dissertation “For al them that delight in Cookery,” families would frequently have their recipes compiled into a manuscript book that could be passed down through the family or given as gifts (Kernan: 9). Later in the sixteenth century, printed English cookery books stopped being ostensibly aimed at the nobility and began to target the gentry and professional classes (118), much as the earlier French cookery book *Le Ménagier de Paris* had been. Subsequently, in England, the genre came to be written for women, and by women as family manuscripts (9). In fact, by the last quarter of the seventeenth century (14) the entire cookery book industry was “almost exclusively directed to women” (6).

Context: The Consumption of Pork in England

Pork, as a staple of the lower (Moisà 2001:83) and middle classes in medieval England, often made up a significant portion of the meat they ate: the majority consumed in the thirteenth century, and between 20 and 30 percent for most of medieval and renaissance England (Woolgar 2006: 73). Pigs were considered easy to raise, and pork easy to preserve—given adequate quantities of salt and the ability to store it properly for several months while it cured—making the relative cost of production lower than other meats (ibid). By the later Middle Ages, written records help differentiate between fresh and preserved pork in recipes. The preservation of pork was mainly done through curing, primarily by dry salting (Tannahill 1989: 175-178) and through brining (Dawson 1594: 12), though there is little to no evidence of brining being used for bacon before the very late sixteenth century.

While common people ate a much higher percentage of pork compared to other meats, the overall percentages are offset by the upper classes eating a wider variety of meats (Woolgar: 75-76). Based on extant financial documents, pork was most eaten in winter and summer with less eaten in spring and autumn (205), perhaps aligning with Lent and the month it takes for the meat to cure after slaughter. This seasonal cycle aligns with Thomas Tusser’s 1580 edition of *Fiue Hundred Pointes of Good Husbandrie*, which mentions Easter as the start to when bacon is eaten—with the 40 days of Lent perhaps

decreasing the amount of time in the early spring for consuming bacon—while autumn is when beef is eaten (1878: 71).

Defining Bacon

The word “bacon” today refers to cured and smoked pork belly or loin, but the word was much less specific in the past, often being used *pars pro toto* (part for whole) to refer to both pork in general (Horowitz 2005: 57) as well as to cured pork specifically, which would include bacon, salt pork, sometimes lard, and ham. Looking at references to both bacon and lard in my research added some specificity to what is sometimes a generalized idea. For example, in the late thirteenth century, the terms used to refer to pork belly in B.L. MS Additional 32085 were lard or larduns (Hieatt and Jones 1986: 863), leading to the term “larding” for wrapping or interlacing meat with fatty pork belly. This definition persisted until the 1650s when the verb “larding” was divorced from the noun “lard.” For example, *The English House-Wife* features a recipe with the instructions to “lard it either with mutton-lard or pork-lard but mutton is the best” (Markham 1649: 94), the first time a meat other than pork is used to lard something in the 38 earlier and contemporary English cookery books in this research. *The Compleat Cook* (T.C. 1656: 59) follows, where any flesh can now be larded with any other flesh, such as fish.

Whether or not the pork belly had been cured is not clear, but between written references to salting pork as early as the twelfth century in the British Isles (Iomaira and Gallagher 2011: 31) and the evidence of salting meat as a pre-classical technology in very common use throughout the medieval period (Tannahill 1989: 176), it can be assumed that cooks had the means and inclination to do so. Whether the meat was smoked or whether saltpetre was used is discussed later. By the fourteenth century there is written evidence for lard being preserved (probably by salting). In B.L. MS Additional 46919, the *Explicit doctrina faciendia diversa cibaria*, written sometime before 1337 and collected in Hieatt and Butler’s *Curye On Inglysch*, the cook is instructed to “soppen in water cold” (1985: 55), or soak the lard in cold water prior to use, something that would not have been necessary with fresh lard. This recipe further instructs the cook to wrap the roast in the soaked lard, implying that the lard used is more likely fatty pork belly and back rather than leaf lard (visceral fat from around the kidneys and loin of the pig).

Although “lard” was also often used *pars pro toto*, a fatty piece of pork with no bones that has been cured was often identified as “bacon” from at least the fourteenth century (Horowitz 2005: 57), and in the sixteenth century we see proof that bacon and ham are seen as distinct preparations. For example, English ship rations in the sixteenth century specified that every sailor receive one pound of bacon on Mondays as a meat ration (Simancas 1588 in Hume 1899: 269-275) as opposed to ham or gammon (akin to contemporary Virginia ham). This separation of bacon from ham or gammon seems to be based on bone and fat content in addition to location on the pig. In the anatomy of a side of pig, including lard, loin, ribs, belly, and hind leg or ham, a gammon is the side with the ribs, loin, and lard removed but retaining the hind leg (OED Online 2020), and it also frequently has the fattier part of the belly removed. Essentially what is left is the meatier part of the pig. The cooking for a gammon of bacon is also very different from the use of bacon or lard, in that it is first stuffed and then baked or roasted (Dawson 1596: f13r). The reason for the removal of the fattier parts of the pig is that the fat content of bacon or lard makes it more likely to go rancid with poor treatment in less than ideal conditions. Because of the similarities in production and use between lard

and bacon from the thirteenth to sixteenth centuries I use the working definition of “cured pork meat from the belly and back” here.

Modern bacon is significantly different in preparation. In 1755, the first recorded recipe for what was to become modern bacon was published in *A New and Easy Method of Cookery* in Edinburgh (Cleland 1755: 42):

To Make Hams or Bacon.

SALT them on a Table, and lay a Weight on them for two or three Days, then to every Ham or Flitch of bacon, take a Pound of white Salt, a Pound of Bay Salt, two Ounces of Salt-Petre, and two of Petersalt, a quarter of a Pound of brown Sugar; mix them all together, and warm them pretty hot; lay your Hams in a Trough, and rub them very well, turn and rub them every day for three Weeks; then hang them up to dry by a slow Fire, Wood, or Saw-dust, is the best to dry them with.

Twenty-five years later, a recipe recorded in *The Farmer's Wife: Or The Complete Country Housewife*, printed in London, bears a striking resemblance to Cleland's 1755 cookery book, with the only change being a significant reduction in the amount of saltpetre (Hogg 1780: 29). This type of salt-sugar-saltpetre rub stays the same, with a saltpetre ratio of within a 3 to 10 percent range until the twentieth century. For example, *The American Farmer* in the 1850s has recipes at 6 percent (Marriott 1853: 193) while the famous Wiltshire recipe in 1860 used 8.5 percent saltpetre (Beeton 1861: 805). Dozens of cure recipes throughout the nineteenth century all fall within this general range and are made in essentially the same way, a practice that continued until the switch to the more efficient sodium nitrite in the twentieth century (North American Meat Institute 2016: 1). Modern cures use between 0.3 and 0.7 percent sodium nitrite, and in general the maximum legally allowed limit in meat in Canada is around 2 percent (Canadian Food Inspection Agency 2014: C.2).

Bacon in Literature

The first use of the word “bacon” in written English predates our existing cookery books. The earliest literary use of the word may have been in the “Poem on the Evil Times of Edward II,” from the early fourteenth century, “for beof ne for bakoun, ne for swich stor of house” (for beef nor for bacon, nor for such store of house; Wright 1839: 341). But *Piers Plowman* in the late fourteenth century gives us the first reference that can be compared to the working definition: “And 3ut y say[e], by my soule! y haue no sal[t] bacoun” (Kane 1988: C.8.306).¹ There are seven different lines in *Piers Plowman* referencing bacon (Wittig 2001: 45), demonstrating that it is a simple yet important food, equated with currency: “May no peny ale hem pay ne no pece of bacoun” (Kane 1988: C.8.331). The previously mentioned line about salt bacon shows that at this time bacon is already considered a cured meat, and the third important reference is “a ronde of bacoun” (round of bacon; Kane 1988: C.9.148); although it could mean many things, it likely refers to bacon made from the loin of the pig, such as back bacon, rather than from the belly.

There is a later reference to the preparation of bacon in Chaucer's Nun's Priest tale in *Canterbury Tales* (1987: 2842-2845):

No wyn ne drank she, neither whit ne reed,
 Hir bord was served moost with whit and blak,
 Milk and broun breed, in which she foond no lak,
 Seynd bacoun, and somtyme an ey or tweye,
 For she was as it were, a maner deye.

(No wine drank she, neither white nor red/ her board was served most with white and black/ milk and brown bread, in which she found no lack/ scorched bacon, and sometimes an egg or two/ for she was as it were a manor dairy. [translation by Arney])

“Seynd bacoun” is mentioned as the most basic of foods. The widow, whose eating habits are being described and juxtaposed against the Wife of Bath, the Monk, and perhaps the Prioress, consumes simple fare that includes milk, dark bread, bacon, and eggs. The description of how to cook bacon is of interest here. “Seynd” means scorched, broiled, or slightly burnt, implying that she was so poor that the only way she could cook her bacon was by the simplest method, over an open fire.² This use of bacon is important, because often in cookery books bacon is an ingredient in a larger dish rather than something cooked alone as we see it used in Chaucer.

Appearance in Cookery Books, Thirteenth to Seventeenth Centuries

Although cookery books are generally prescriptive rather than descriptive, it is in them where the closest thing to proof exists of how bacon was used, treated, and made. I found references to bacon and lard at least 152 times in the 29 English cookery books I examined from between the fourteenth and sixteenth centuries, with an uptick of 291 times in the 9 English cookery books researched from the seventeenth century. Comparatively, looking at the European continent, I found bacon and lard referenced 399 times in 18 cookery books from Denmark, the Netherlands, Spain, Germany, Prussia, Italy, and France from the fourteenth century to the second decade of the seventeenth century. In this section I summarize this evidence century by century, focusing especially on the ingredient’s characteristics and preparation for culinary uses.

Bacon is specifically mentioned three times in a French cookery book from the early fourteenth century, *Enseignements qui enseignent a apareillier toutes manières de viands* (Myers 2005). Only once does the term refer to how it has been specifically processed, “crisped,” as an ingredient covering small birds as they steam (lines 115-118): “For a gravé of small birds—If you want to make a gravé of small birds, put the birds to cook in a pot all covered with crisped bacon, and add wine and water and pepper and ginger, and keep well covered that steam doesn’t escape that all will be cooked.”³

By comparison, *Forme of Cury* is the first English cookery manuscript to refer to bacon specifically, in a recipe for beans (1390: f12r):

Take benes & drye hem
 in an ovne & hulle hē
 wel and wyndowe out the
 hulfes & waysche hē clene
 & do hē to seep i god broth
 & ete hem wiþ bacou

(Take beans and dry them/ in an oven and hull them/ well and winnow out the/ hulls and wash them clean/ and to them to steep in good broth/ and eat them with bacon [translation by Arney])

Although the recipe does not tell us anything about the look or creation of bacon, it does suggest the ingredient could be seen as a separate side dish, or as a seasoning to add to a serving of the beans. The cookbook also mentions lard ten times, as I have mentioned before, a term that often appears to include “bacon” in the oldest cookbooks I reviewed. “Lard” suggesting bacon-like strips and use because of the heat involved, appears earlier in an Anglo-Norman cookery book from England, *Vetera Statuta, Registrum Brevium, miscellaneous texts including culinary recipes and a treatise on estate management* from the end of the thirteenth or beginning of the fourteenth century: “e puys kaunt il serra achaufé lardez le od long larduns” (and then cook it until it’s hot, lard it with long larduns; Hieatt and Jones 1986: 863). This passage helps us see lard as a word often used for bacon, but does little for understanding how it is prepared.

The French cookery and general household management book *Le Ménagier de Paris*, published about the same time as “Forme of Cury” in the 1390s, is the most important early cookery book when it comes to bacon (Pichon 1846).⁴ In the five English, three French, and one German cookery books from the fourteenth century, 50 of the 176 references to bacon and lard are from *Le Ménagier*, more than any of the other pre-sixteenth century cookery books I examined. *Le Ménagier* has four clear references to the appearance of bacon, and two that help explain how to make it. First, in the description of larding, the author writes that “there is a difference between sticking and larding, for the first is with cloves and the other with bacon” (Pichon 1846: General Terms). Second, there are two descriptions of the bacon itself, “three bacon strips,” (Coney Soup) and “let the strips be small like slices of bacon” (Broth with Meat Strips). Although the descriptions do not explain whether the meat was from the loin or the belly, they do reveal that the slicing of it is not the “rondes” of bacon that are mentioned in *Piers Plowman*, implying that the cut used is likely from the belly, which would have more fat and so be better for larding.

Of two *Le Ménagier* references to how bacon is cured, one describes the curing method that continues to be referenced through to the early modern period while the other describes the use of color to judge the acceptability of the product. The passage on how to make chitterling sausages shows that the main process for curing bacon is the salt and stack method, which continued to be used for several centuries: “when these chitterling sausages are thus done and filled, you take them to be salted with the bacon and on top of the bacon” (To make chitterling sausages). In this method the weight of the meat helps press out liquid and speeds the curing process. The more important second instance about bacon color comes from a discussion on how to determine the type of bacon that should be purchased (On the Second Distinction):

Note that some hang their pigs in the Easter season and the air yellows them; and it would be better for them to keep them in salt as they do in Picardy, even though the flesh is not so firm, it seems; nevertheless you get better service from bacon which is fair and white than from yellow, because however good the yellow may be, it is too repulsive and causes disgust when viewed.

Although a discussion of color might seem odd, it explains a great deal. From my experimentation in bacon making, when bacon is cured by packing in salt, the color of the fat at the end of the curing process is white, and the flesh, while firm, is not as hard as after it has been dried. Once the bacon has been rinsed and dried for a few weeks, but not smoked, the fat becomes a yellowish color, and the meat itself is tough. The best bacon then, according to *Le Ménagier*, has not been dried after salting, but left in salt until the time of use and, as we see later, it is then rehydrated in water.

Among other informative fourteenth-century cookery books, *Das Buch von Guter Speise* (c. 1350) specifically refers to “fatty bacon” (Atlas 1993: 5, cf. Adamson 2000), implying bacon from the belly rather than loin because of a higher fat content. Also in B.L. MS Add 46919 from the first half of the fourteenth century, lard is referred to as being “soppen in water cold” before use (Hieatt and Butler 1985: 55), an important step for salted lard and salted and dried bacon, but not needed for uncured meat. The soaking or boiling of bacon before use continues as a theme until after the sixteenth century.

The number of cookery books I could find that date to the fifteenth century increases over previous centuries, with the number from England (13) almost that of the previous century. In the 20 books I examined from this period—beyond the 13 from England, 2 Italian, 2 French, and one each Prussian, German, and Dutch—I located a total of 33 references to bacon and 154 references to lard or larding. Throughout this period there are references to “good white lard” (Chiquart 1420: 52), meaning, as previously noted, it is either fresh or has been salted and not dried. “Recipes from the Wagstaff Miscellany” (c. 1450) gives four very helpful references asking for “ribbys of bacon” (Myers 2015: 4), also “clene larde of fat of bacon” (19), “salt lard of porke” (126), and “lard hem with salt” (158), in addition to calling for bacon and lard to be soaked and in one case boiled. In *Noble Boke off Cookry*, bacon and lard are referred to as being boiled and soaked (Napier 1882: 88) and “salt bacon” appears several times. Authors also began referencing fresh pork or fresh bacon to show that, although commonly salted, there was still call for fresh; Italian authors were especially particular about whether a recipe called for fresh or salted lard or bacon, as in *Libro di Cucina*, the fifteenth century Venetian cookery book (Fрати 1899: LXXVII).

The majority of sixteenth century cookery books I examined were from the second half of the century, with one important reference to cooking bacon coming from *Alte Kochrezepte aus dem bayerischen Inntal*, at the century’s beginning. Here the cook is instructed to “fry it in a pan like fat bacon” (Bach 2005: 11). Simply frying bacon was likely still a common preparation, and “fat bacon” is likely a reference to bacon made from the belly rather than the loin. The 1553 German cookery book *Das Kochbuch* by Sabina Welserin, as translated by Valoise Armstrong, specifies that only the loin and back were considered for bacon: “According to how fat the pork is, one can use less or more, take the bacon from the back and not from the belly” (Welserin 1553: Armstrong translation, 23). Here she also instructs the cook, when making sausages with bacon in them, to “hang them in the parlor or in the kitchen, but not in the smoke and not near the oven, so that the bacon does not melt.” Between being instructed to use the less fatty cut of bacon in sausages and to keep the temperature low while they cure, it’s clear that pre-seventeenth century charcutiers understood the problems of bacon fat melting or turning rancid during the curing process (Goldwyn 2016).

Two cookery books, published in the late sixteenth century within three years of each other, are most important for directly discussing the production of bacon and lard. *The Good Huswifes Handmaide for the Kitchin* (Dawson 1594, 1597) and *The Good Huswifes Jewell* (Dawson 1596) present multiple ways of curing and preserving lard and bacon and one method of cooking. *Good Huswifes Handmaide for the Kitchin* has four recipes for the “keeping of lard,” one of which is clearly specifically for bacon as it refers to not taking the “leane from the fat” (1594, 1597: 11), something that would not be an option with leaf lard, while the other three appear to be methods of keeping leaf lard without it spoiling. The leaf lard recipes are essentially brined, a method which is not recorded as being used for bacon until John Harris and the “Wiltshire Cure” method in the 1770s (Bule 2016). The bacon curing instructions in *Good Huswifes Handmaide for the Kitchin* (1594, 1597: 11) are:

SCald your hogge, and even as you dresse your Bacon hogge, so dresse this: then lay it in salt, the space of three weekes or a moneth. Then take it vp, and let it hang ther as in maner is no smoke: but when ye thinke it wareth moyst, let it be hanged so lowe that the heate of the fire may come to it: or els put it in an Ouen when the breade is drawne out, and when ye thinke it be wel dried, take it out againe til it ware moyst again, and so ye shal keepe it wel enough three quarters of a yeare, and neuer take the leane from the fat but as ye occupie it.

These instructions affirm a few principles seen in earlier texts including salting the meat, drying it, and keeping it away from smoke or heat.

The Good Huswifes Jewell makes several references to soaking and boiling bacon before use and also gives this method of preparing by frying (Dawson 1596: f25r):

To frie Bakon.
Take Bacon and slice it very thinne, and
cut away the leane, and bruse it with
the backe of your knife, and fry it in sweet
Butter, and serue it.

This recipe, so similar to the method used for cooking in both *Canterbury Tales* and *Alte Kochrezepte aus dem bayerischen Inntal* (Bach 2005) implies that frying continued to be a common method for cooking bacon by itself rather than using it as an ingredient in a larger recipe and could be used for dressing a dish as in “Enseignements qui enseignent a apareillier toutes manieres de viandes” (Myers 2005).

The Closet of Sir Kenelm Digby Knight Opened, published in 1669, describes a method for making bacon in three steps that transitions away from medieval techniques (Digby 1910: 212-213). First, rather than buried in salt as was done previously, the meat is rubbed with salt, thus having a much lower salt content, and it is layered with other pork in a tub. Second, the author suggests storing the bacon in a cool place, exhibiting a concern about bacon fat going rancid. Third and most important, Digby’s is the first cookery book to mention explicitly that the bacon is smoked.

Bacon Creation

The methods used in the creation of bacon are important, as we see that modern bacon is an evolution from pre-seventeenth century bacon. The key aspects to making pre-seventeenth century bacon, based on its description in literature and in cookery books, are salt, compression, and the method of cooking, whereas the modern evolution of bacon revolves around smoke and saltpetre. Pre-seventeenth century bacon was made from the fattier cuts of pork, such as the belly and back, and the preferred location seems to vary across sources though in general bacon meant for larding was always from the belly, and was tough and woody before being softened in water.



Photos 1-2: Fresh pork belly before salting (L) and after salting (R).
Calgary, AB, March 11 & 28, 2018. Photos here & following: Noah Arney.

From the literary and cookery book sources we see that bacon was created by being covered in salt, and likely compressed, until it was dry, then it was removed and either used or hung to dry further. Prior to use the bacon was soaked in water to rehydrate it and remove some of the salt, or the salted bacon was used in a dish providing both salt and meat. Until the end of the sixteenth century it was not smoked, but by the time it was, smoking it was still rare. Saltpetre was not used in the production of bacon before

To gain a better understanding of the process of creating bacon, as mentioned earlier, I experimented with various adaptations of the pre-seventeenth century bacon-making methods I had viewed in cookery books. Based on the results of those experiments and with the help of key secondary sources, I learned a great deal about the salting, layering, and cooking techniques, and the effects of smoking and adding saltpetre.

Salting: Salting is key to the process of curing meat, and it was used on most meats besides pork, as well as fish, as one of the more common preservation methods. Salting allowed for the preservation, storage, and transport of meat without refrigeration, and was in common use from pre-classical times—the curing of pork is well known as early as Roman Gaul (Tannahill 1989: 176). There are several different ways of salting meats: coating in salt, temporary packing in salt, partial packing in salt, and long-term packing in salt, as well as several different brining methods. The primary method for curing bacon, as discussed earlier, was temporary packing in salt followed by drying. The meat was generally stored in a watertight cask, or *doliis* in Latin (Ridgard 1985: 29), as is supported by *Lieber Cure Cocorum*, written between 1420 and 1440, when it specifies: “And do hit in a barel þenne. Þe barel staf ful as I þe kenne” (and do it in a barrel then. The barrel stuffed full as possible; Morris 1862: 34). This method is faster and more effective than simply drying the meat (James 2009), as the plasmolysis caused by the salt is rapid enough to prevent harmful bacteria from growing and allows the meat to be stored safely.

Two different kinds of salt were used: sea salt, then called bay or gross salt, and white or rock salt. Sea salt appears to have been the cheaper variety especially in England (Woolgar 2006: 182). Sea salt was produced all along the coast in Western Europe and frequently “contained many impurities,” so it was mainly used for curing or was refined by “redissolving, filtering, and evaporating it a second time” (Adamson 2004: 26). Sea salt “sold for half the price of good white salt,” while rock salt was of better quality, mined then dissolved and refined through evaporation (Tannahill 1989: 177). When rock salt was used in salting meat it was normally mixed with large amounts of the poorer quality bay salt to decrease the cost (Woolgar 2006: 182-183). From my experimentation, there is no difference in the final product regardless of the salt used. With the more impure pre-seventeenth century sea salt the impurities may have changed the flavour slightly.



Photos 3-5. Salt layering process of packing pork for curing. Later experiments also included adding weight for compression. Calgary, March 11, 2018.

Layering for Compression: The layering of meat to increase compression and force out more of the water is found in several references but most especially *Le Ménagier de Paris*, as mentioned earlier (Pichon 1846). The layering of bacon to increase compression is still done today, likely for the same reason—“due to the weight of the rubbed meat cuts, the pressure within the pile is higher at the bottom of the container”—resulting “in faster liquid loss and salt infiltration” (Heinz and Hautzinger 2007: 173).



Photos 6-7. Pork belly drying:

(L) After salting, with the loose salt washed off. February 18, 2016.



(Above) After several weeks of drying in temperature-controlled environment. February 28, 2016.

Cooking: Bacon cured using the pre-seventeenth century method typically must be rehydrated and desalted before use—except for when it may be used as the source of salt in the dish. In my experimentations using the pre-seventeenth century methods, I found the cured and dried result hard and woody to the touch, with its outside fat tinged slightly yellow, much as is described in *Le Ménagier* (Photos 6-7). I found that boiling water sped the rehydrating time from 8 hours, or overnight, to about 60 to 90 minutes, but it also pulled more flavor from the meat (Photos 8-9).



Photos 8-9: Rehydration test in an early experiment: before (L), March 28, and after (R), April 2018, Calgary.

When I tested soaking already cut individual strips with soaking a slab of bacon before it was cut into strips, I preferred the flavor and ease of slicing the bacon when I boiled the slab (Photos 10-11).



Photo 10: Rehydration test bacon before cooking. Calgary, February 28, 2016.



Photo 11: Rehydration test bacon after cooking. Calgary, February 28, 2016.

To cook just the bacon, I followed instructions in *The Good Huswives Jewell* to “fry it in sweet Butter” (Dawson 1596: f25r), finding the result flavorful and a bit salty, but not unpleasantly so (Photo 12). When I experimented with adding sugar to the salt during the curing process, I found that the soaking removes the sweetness of the sugar completely, offering no benefit to the taste, much to my disappointment.



Photo 12. Cooking in butter. Calgary, April 7, 2018.

Smoking & Saltpetre: Modern bacon is nearly always smoked and almost always uses a “curing salt” or nitrates, in addition to regular salt. In my experimentation I used curing salt in my earliest versions. The meat was slightly pinker than in my later versions, but there was no other difference between bacon made with salt and nitrates and then dried, and bacon made with just salt and then dried. The use of nitrates decreases the total amount of salt needed to inhibit the growth of *Clostridium* bacteria (Jackson et al. 2011: 410), but with the quantities of salt called for in the pre-seventeenth century version it has little impact.

Smoking results in a dark brown or black look on the outside, with a nice pink color of the flesh inside, compared to the yellowed exterior fat of the non-smoked version, as noted in *Le Ménagier* in the late fourteenth century. While sausages have been smoked for centuries longer than bacon, two sixteenth-century cookery book instructions for sausages that contain bacon as an ingredient specifically caution not to smoke them. In Welserin’s 1553 book, the cook is instructed to “Hang them [sausages] in the parlor or in the kitchen, but not in the smoke and not near the oven, so that the bacon does not melt” (Welserin: Armstrong translation, 23), and in 1594 *The Good Huswifes Handmaide for the Kitchin* (11) comes the direction “Then take it vp, and let it hang ther as in maner is no smoke.” The reason appears to be that the heat can melt the bacon’s fat, or even cause it to go rancid.

The first cookery book referring to smoking bacon appears in 1669 but the first evidence for smoked bacon doesn't come from a cookery book at all. In 1598 John Florio wrote an Italian-English dictionary called *A Worlde of Wordes*. In it he defines the following word: “Affumare, to besmoke, to dry in the smoke as baken is, or blote as hearings” (Florio: 10). His advice is contrary to that in *The Good Huswifes Handmaide for the Kitchin* that warns against it. Perhaps what we see here are differences in the two authors’ audiences. Florio was a tutor to earls and their families, and later to the royal family, and was writing for the wealthiest of the nobility, while Dawson, the author of *Handmaide*, was writing not for the nobility proper but for “gentry and husbandmen” (Fumerton 1991: 241), as well as yeomen, professionals, merchants, and their families.

In order to smoke bacon safely, temperature control must be maintained or the meat will turn rancid be ruined. The risk of losing a side of bacon would have been too costly an error for the non-wealthy to risk, whereas the wealthier would have had much more elaborate kitchens to smoke bacon safely and not be financially burdened if the bacon turned rancid—and they would also thus know the delicious flavor and improved color that smoke brings to bacon.

Similar to Peter Brears (2008), I have also found no use of saltpetre in English cookery books before the seventeenth century.⁵ Although some have argued that there may have been enough nitrate concentration in the salt used to act as an agent in the curing process (Keeton 2017: 86-87), no evidence has yet been put forward to substantiate this claim.

Food Safety

Before modern food safety methods were created there were many ways of determining whether or not bacon was safe to eat. In *Epulario, or The Italian Banquet* (1598), Giovanne de Rosselli mentions “If you wil know when a Gammon is good, thrust a knife in the middell of it, and if the knife being pulled out smelleth, it is good: if to the

contrary, it is not good” (16). This basic smell test is expanded much later in 1780, when *The Farmer’s Wife; or Complete Country Housewife* was published, explaining that “If in ten days or a fortnight any of the pieces do not feel hard to the touch, you must rub some more salt upon them. In three weeks the pork will be fit for use” (Hogg: 30). The bacon shouldn’t smell “off” at all, especially after cutting into it, and it should be hard to the touch. During my experimentation I used the above methods for determining if the bacon was safe, but I also followed modern food safety precautions.

Using the packing in salt method for creating bacon, the primary curing process occurs during the first seven days, and the meat loses over 20 percent of its moisture content in the first three days of curing (Jin, et al. 2010: 468). After the first week of curing, the temperature control is not as crucial, since the meat’s water activity level is significantly lower, and it should be at the shelf stable stage (Canadian Food Inspection Agency 2014: 4.16.3). It thus can be kept at room temperature with adequate protection from the environment. A product that has been packed in salt or saturated in salt is also considered shelf stable (Canadian Food Inspection Agency 2014: 4.13.2). Thus bacon can be safely cured and dried in the pre-seventeenth century manner without refrigeration, if the meat is kept below 10 degrees Centigrade (50 degrees Fahrenheit) during the primary curing process, particularly the first week. After the full curing time, three to four weeks based on *The Good Huswifes Handmaide for the Kitchin* (Dawson 1594: 11), the meat can be safely removed from the salt and dried at any temperature below 20 degrees Centigrade (68 degrees Fahrenheit) as it is now shelf stable.

Conclusions

Modern bacon curing methods begin their history in 1755 with saltpetre, sugar, and smoke (Cleland 1755: 42). Medieval and pre-seventeenth century bacon, however, was quite different as can be seen in cookery books and other materials from the medieval and early modern periods in western Europe. While it would be identifiable today as bacon, it was much drier, prepared using only large quantities of salt, it was dried after being salted, and was generally rehydrated in water before being used. Pork in general, and bacon in particular, were major foods consumed by all classes of people from at least the twelfth to the sixteenth century due to their low cost and ease of preservation. Bacon during these centuries was likely made from the loin or belly of the pig, much as modern bacon is, but the curing was achieved by covering it in large amounts of salt, layering it to increase compression, and drawing out all moisture before hanging it to finish drying. Pre-seventeenth century bacon would have been shelf stable and could be stored anywhere at or under room temperature. Unlike modern bacon there was no use of either sugar or saltpetre. There is no evidence for smoking as part of the process until the end of the sixteenth century and then only by people who could afford the risk of losing the meat in the process.

This research focused chiefly on bacon in England with some information coming from France, Germany, and Italy. Further research to investigate whether it was manufactured differently outside of England, and also how it fits into the larger world of charcuterie would be beneficial as well. Research in the area of medieval and early modern food security may benefit from this analysis as well, as it explains the methods by which a food we now consider to be prone to spoilage remained such a reliable mainstay of the English diet. In the future, I aim to experiment with pre-seventeenth century recipes that use bacon heavily, such as in larding, to see how the type of bacon used at the time makes the food taste.

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Notes:

¹ *Piers Plowman* exists in fifty manuscripts, which fall into three different extant versions, called A, B, and C (Langland, late 14th century-16th century).

² Dickens (1935) suggests an alternative translation for “seynd” as “fatty” rather than the common translation of “smoked” or “singed,” basing his interpretation on modern use of the term “seym’dup” in Northumberland and the word “saindoux” in French.

³ The original as transcribed by Thomas Gloning: “por gravé de menus oiseaus – Se vos volez fere gravé de menus oiseaus, metez les oiseaus cuire en un pot tout assec avec charbonnees de lart, e i metez vin e eve e poivre e gingembre, e tenez bien couvert que l’alaine ne s’en isse devant que tout soit cuit” (Gloning 1998).

⁴ Although *Le Viandier de Taillevent* is from the same period it is limited in its description of bacon beyond calling for its use as strips (Scully 1988).

⁵ The earliest English culinary use is in *Natural Magick* by Giambattista della Porta, translated into English in 1658. Della Porta recommends using it to help create a type of wine slush. An edition of Samuel Pegge’s *The Forme of Cury* does include the ingredient “gret salt of peite” (1780: 112) but this likely refers to bay salt coming from Peitou (Twemlow 1921: 214-216).

⁶ All online sources accessed during research and writing-editing phases have been checked and are current as of January 18, 2021.