

Cookery lessons: Viewing the past through the lens of reconstructing food and cookery techniques from history.

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Food is a powerful and emotive subject that can bring people together or force them apart with divisive opinions on taste, texture, appearance or in more recent times, sourcing and supply. Food touches each one of us on a daily, if not hourly basis. We are all aware that many in the world do not have enough to eat and that many of us have too much. Food forms the basis of nights out and days in. It is grown, traded, transported, bought, sold, designed, and created. It is packaged, stored, thrown away, given away, treasured and reviled. Our use of food drives the design of tools for processing it, buildings for using or storing it, and spaces for consuming it. Food touches a multitude of subjects and disciplines from agriculture, transportation, design, politics, geography, climate, mathematics and accounting, psychology and history. Some of us may live to eat, but all of us eat to live and our existence is testament to the fact that our ancestors ate too. Food and history are inextricably linked, and food is a tool through which we can investigate history with direct relevance to our modern lives.

In 1991, Historic Royal Palaces, the independent charity that administers the Tower of London, Hampton Court Palace, Banqueting House, Kensington Palace, Kew Palace and Hillsborough Castle, began an annual Tudor cookery event within the surviving kitchens of Hampton Court Palace. This cookery would look at the social history of Hampton Court through the lens of food history.

Home to King Henry VIII in the early sixteenth century, over half a million visitors annually visit Hampton Court Palace and its surviving Tudor kitchens to find out about this mercurial monarch and his association with food. Constructed in the late 1530's for Henry VIII's court, Hampton Court's kitchens served subsequent monarchs from then through to the last royal occupation in 1737. From then until the late 1970's, these cookery spaces were altered and adapted for various uses and people and it is this varied four hundred and fifty year history that makes them and the food they produced, an ideal hook upon which to hang history for our visitors. The original kitchen complex occupied close to a quarter of the ground area of the whole Palace and consisted of over fifty separate spaces which were subdivided into more than twenty different departments to provide food and drink for the court. Though much has been reshaped and converted from cooking spaces to modern offices, what remains gives a clear indication of the principal cookery method used within Henry's kitchens, roasting.

The largest surviving space, the Great Kitchen, contains within it six large fireplaces. Five of these are approximately five metres wide, two metres tall at the opening and around two metres deep, with the sixth being slightly smaller at three metres by two metres by one metre. These fireplaces define the dimensions of the building that houses them, not just in its width and length, but also in its height. The apex of the roof is around 11m from the floor and this was intended to aid in the removal of heat from the space. An observer from Spain

in 1554 likened the kitchens to a "*veritable hell*"¹ and with six fireplaces all working at once to roast meat for four hundred people, one can imagine how hot it would have been in there.

Roasting was a sign of wealth and status historically; it is a process applied to fresh, rather than preserved meat, positioned in front of the fire on a spit or broach, which is turned at intervals until the meat is cooked. When live interpretive cookery began at Hampton Court in 1991, roasting formed the core of the 'hands on' offer for visitors; they could turn the spit and become fatigued, sit next to the fire and feel the heat and while doing so, learn about this cooking method and those that employed it.

Roasting employs several components; there is the meat to be cooked, the spit to hold the meat, the fire to provide the heat and the person to operate the whole. Each of these is not a simple unit and roasting isn't simply a case of just putting meat in front of a fire to cook.

The first thing to consider is the meat itself. Analysis of the weights of cattle for consumption² shows that late medieval cattle were approximately one fifth the size of modern animals, which is borne out by illustrations from medieval sources. This means that historically, joints of beef would be proportionately smaller than modern cuts and therefore have shorter cooking times and thus an impact on staff workloads over a given time.

Original preconceptions about spits for roasting were again very simple; a long metal bar with a crank handle at one end and a point to aid insertion into the meat at the other, resting upon a pair of notched supports to act as points of rotation for the spit.



Fig 1. Museum of London Item 84.314/10 late medieval/early post medieval roasting spit. Image© R. Fitch

The fact that the spit pierces the meat means that if the joint is slid off the spit once cooked, upon carving, the slices will have a hole in the middle of them matching the cross section of the spit, something that is missing in virtually all reproduction food in museums and heritage sites, and something that can only be discovered through the recreation of this cooking method. The metal spit conducts heat and leads to a partial cooking from inside the meat as well as from the heat of the fire on the outside, though the degree of this cooking is not large, it is significant to the development of the spits themselves. It has always been presumed that the job of the *tournebroche* was to constantly turn the spit. The weight of the offset crank handle means that you can only leave the spit resting in one position through its rotation (with the handle at the bottom) so the whole must be turned to ensure an even cooking of the meat. However, some of the most famous early images of roasting (examples shown in Figs 2 and 3) do not show a crank handle.

¹ Calendar of State Papers. Spain. XIII, 31.

² "A History of Agriculture and Prices in England from 1259 to 1793" J. E. Thorold Rogers, 1866–1902, 7 volumes



Fig. 2. Roasting from British Library M.S. Add 42130 f206 v. Image © British Library



Fig 3. Roasting from Bodleian M.S. 264 f204r. Image © Oxford University Libraries

If the crank handle is not essential, as Fig's 2 and 3 show, why have the crank at all? Are the only two known medieval or early modern spits that survive³ anomalies or is there a good reason to have crank handles?

One suggestion is that the straight spits would predominately be made of wood, and the colours used in Fig.3 would seem to support that interpretation. Wooden spits are still in use today, all be it on a smaller scale in the form of wooden barbecue skewers for kebabs, so clearly the technology works. In either case, the spit or skewer is simply holding the meat in position as it is cooked. We do not presume that we must constantly turn barbecue kebabs, so why do we presume that constant turning was the case in the past? Does meat need to be turned constantly to roast it?

³ Museum of London Item 84.314/10 (Fig. 1) is a small, domestic scale, iron spit, catalogued as of late medieval or early post medieval date <https://collections.museumoflondon.org.uk/online/object/109846.html> accessed 23/01/2019. "2000-2006 Interim Report on the APVA Excavations at Jamestown, Virginia" eds. William M. Kelso Beverly Straube, Jamestown, May 2008 p82.

Experimental work shows that constant rotation is not the case; in fact, with some sizes of meat joint only one 180 degree rotation is required during the cooking to completely cook the meat. What this does result in is a crisp, more burned than caramelised outer surface that modern diners find unpalatable, however refined medieval and Tudor diners would not have experienced this as the outer layer was removed before service as surviving instructions for carvers tell us⁴; so this modern objection to minimal turning of the meat would not have been the case in the past.

But why replace wood with metal? Longevity of the tool is one reason, wooden spits will after all become casualties of the heat they are subject to, but scale is another. To span wider fires or to move the operator further from the heat we must have ever longer spits, however the longer the spit becomes, the more it is subject to bending, either under its own weight, or the weight of the meat it holds, therefore you are faced with three choices; change the cooking technique and no longer roast, use ever thicker timber poles which become more and more difficult to put meat onto, or replace the wood with metal⁵. Metal though, as mentioned above, conducts the heat sufficiently to cook the meat and in use will eventually become hot enough to cook or burn the hand required to turn it! The solution is a simple, if unexpected one, bend the metal at right angles. This bend will stop the transmission of heat along the metal bar, or at least slow it sufficiently to stop the handle heating up, and if a second bend is made to create a crank handle, you keep the operator end of the spit at a manageable temperature while the temperature immediately before the bend is high enough to cause burns. Observation of the two known surviving spits from London and Jamestown show that the throw of the handle is very short, too short to offer a meaningful mechanical advantage from the crank but adequate to reduce the temperature of the handle in use. The downside to this handle now being cool enough to hold is that the offset weight forces a requirement for turning which did not exist with straight spits before. The fire is not simply a pile of burning wood, but rather a carefully constructed tool designed to project heat towards the meat cooking in front of it. By reconstructing the roasting process for visitors, we enable them to experience the final learning to be had from this ostensibly simple process; the requirement to protect their eyes from drying out with the heat. Having experienced the drying effect of the fire on one's eye and the discomfort that brings, period illustrations of what appear to be spit turners waving to the viewer or artist suddenly become clear for what they really are (see Fig. 3), people turning a spit with one hand while using the other to shield their faces from the heat. A simple revelation, but one only apparent through the experience of reconstructing this food based task and participating in it. It is only through the actual roasting experience and the opportunities this gives to discover the details behind the tasks that allow these details to be passed on to many thousands of visitors a year in a manner that subtly hides the learning outcomes within the experience of cooking.

As well as the simple transmission of historical facts and practical learning, there is the more emotional connection that food can afford us. Until 2014, all cookery interpretation at

⁴ "The Boke of Nurture" by John Russell, ed. F. J. Furnivall p.25 in "Early English Meals and Manners", ed. F. J. Furnivall, Early English Text Society, London, 1931

⁵ While metal is subject to the same bending, the overall thickness of the spit will be much less than a wooden one of comparable length.

Hampton Court Palace was performed for, rather than with, the visiting public⁶. Set behind a line of tables, the cooks would discuss their recipes and technique with visitors who could only watch a didactic performance. From 2014 all cookery has moved to being presented 'in the round' with no barriers or physical restrictions to visitors. They can stand next to a cook and experience the task from their point of view, rather than standing opposed to them, being presented to. Should they wish, they can take part and take on the role of the cook⁷ to experience the task of cooking in Henry VIII's kitchens for themselves, and visitors can revel in truly experiencing 'history where it happened'. Occasionally a small break out project occurs that enables the historic cooks and our visitors to work together to create something much greater than the sum of its parts, and an example of this is the creation of a sugar subteltie, a spectacular table display or decoration made from sugar and confectionery, in the form of a 3D representation of a key part of the 'Field of the Cloth of Gold' painting⁸ that took place over the summer of 2018.



Fig. 4. Fragment of the painting "The Field of the Cloth of Gold" chosen to be reproduced in sugar. Image © Royal Collection Trust.

The intention was, that over three weeks visitors would help create tents and figures from sugar plate or marchpane⁹ which would then be brought together in a fourth week and built into an edible diorama based on the famous painting. Henry VIII and Francois I would be made from marchpane and would be set to wrestle in front of a large golden tent, just as in the painting and the whole diorama was planned to sit on top of a base one and a half metres by one metre in area. The tents in the painting are made up of alternating panels of green and white cloth so it was decided that the simplest way to proceed would be to create multiple identical sub-units in either white or green, that when stacked next to each other created the effect of the striped tents. For the diorama as planned this would require over one hundred white and one hundred green units. The white would be marchpane made from ground almonds and sugar; the green would be sugar plate made

⁶ Fitch, Richard, 'Dinner Isn't Served!: The Use of Historic Cookery as a Method of Interacting with Visitors to Hampton Court Palace', in *Food & Communication: Proceedings of the Oxford Symposium on Food and Cookery 2015*, ed. by Mark McWilliams (United Kingdom: Prospect Books, 2016), pp. 183–192

⁷ Except for working with knives or directly with heat sources.

⁸ This sixteenth century painting held by the Royal Collection Trust depicts the treaty meeting held between Henry VIII of England and Francois I of France near Calais in 1520.

⁹ A recipe for "A Paste Of Sugar, Where Of A Man May Make All Manner Of Fruits, And Other Fine things With their Form, As Plates, Dishes, Cups, And Suchlike things, Wherewith You May Furnish A Table" can be found in "The Good Huswifes Jewell" T. Dawson, 1585 while a recipe for "a good Marchpane" can be found in "A Good Huswifes Handmaide for the Kitchen" 1594.

of ground sugar, egg white, rose water and gum tragacanth, coloured with a green food dye that would be extracted from parsley. Five identical wooden moulds were carved using tools and techniques of the time and these were then used to create the two hundred (plus spares) sections of the tents, with visitors making the sugar paste and marzipan and forming the panels themselves. The large golden tent was made from paste board using recreated Tudor paper and flour glue, which was then coated in sugar paste before visitors helped gild it with twenty four carat gold. In this case as much gold was used to coat this model tent as was used to gild the fingers and noses of excited children who were participating in the task, giving them an experience to remember and indelibly linking that experience with food, history, Henry VIII and Hampton Court Palace. The finished subteltie was displayed through the rest of the summer season allowing many thousands more visitors to engage in the work that had been done.



Fig. 5. The completed sugar diorama. Image © R. Fitch.

There are many lenses through which we can view the past, but none is as universal as food, and in my opinion, none has as much ability to resonate as strongly with our modern lives. Modern visitors to heritage sites are now beginning to demand an emotional connection with their place of visit. As one recent participant in a focus group regarding future interpretation of the State Apartments at Hampton Court Palace commented, "I like the history to be immersive. I don't care if the table is authentic or from IKEA but I just want to feel what it was like."

Visitors to the Kitchens at Hampton Court in 2018 would tend to agree with the sentiment behind that comment:

"I felt fully immersed into the 1500's experience, reminded me why I study what I do"

"I was excited to know how they felt back then"

"I felt like I was really part of the court"

"I was in awe. It almost felt like I was there, very interesting to see what it was like and how it looks like."

"I felt transported back in time and it was a good experience"

"I felt warm inside, literally and figuratively"

These comments stand apart from the regular comments on the rest of the building and are indicative that a visit to the kitchens, to engage through the subject of food, can be truly transformative for visitors. Food as a lens allows us to move one step closer to the past, as "the mere smell of cooking can evoke a whole civilization."¹⁰

¹⁰ Fernand Braudel (1992). "Civilization and Capitalism, 15th-18th Century: The structure of everyday life", p.64, University of California Press