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Peter J. Atkins & Andrew Lamberton

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# CHEESEMAKING IN CHESHIRE 1550–1750

PETER J. ATKINS

*Durham University*

ANDREW LAMBERTON

*Independent Scholar*

This article supports a material turn in agricultural and food history by focusing on the utensils and equipment, along with the embodied practices involved in cheesemaking. The period of interest is the long seventeenth century when rich source material is available in the form of probate inventories—lists of the movable goods owned by deceased persons, mainly adult males, and widows. Our laboratory will be Cheshire, an English county that for 200 years, from the mid-seventeenth century, dominated the cheese supply of London and the industrial towns and cities of the north of England. We use 1600 inventories transcribed by Cheshire local historians, a significant portion of which mention cheese and cheesemaking. We argue that the making and marketing of Cheshire cheese was distinctive but that there was nothing inevitable about its success.

**Keywords:** Cheshire cheese; English history; material history; food history; manufacturing practice

## Introduction

Our knowledge of cheese and cheesemaking in early modern England is incomplete. While there is some literature on emerging dairy specialism in Suffolk and Wiltshire and occasional insights from localities in Shropshire and Lancashire, the most promising county for the story of cheesemaking in the long seventeenth century is Cheshire.<sup>1</sup> While not typical of agriculture in the North, this was the

<sup>1</sup> For more cheese history, see V.E. Cheke, *The Story of Cheese-making in Britain* (London, 1959), R. Blundel and A. Tregear, 'From Artisans to "Factories": The Interpenetration of Craft and Industry in English Cheese-Making, 1650–1950', *Enterprise and Society*, 7 (2006), pp. 705–39, and N. Palmer, *A Cheesemonger's History of the British Isles* (London, 2019).

county that demonstrated most clearly the possibilities of market-orientated production.<sup>2</sup> From unpromising beginnings in the sixteenth century, Cheshire and neighbouring counties came to dominate the London cheese market by 1700, revealing an unexpected strength in the relationship between agrarian individualism and the wholesale agents who flourished from the period of late Tudor mercantilism onwards.

The paper commences with a discussion of our knowledge of Cheshire agriculture in the period 1550–1750. This poses a counterfactual that the origin and development of Cheshire cheese might not have happened in the way it did without a particular set of political and economic circumstances. What we call ‘the Cheshire difference’ marks it out as unique in English cheese history. Second, we describe the source materials—probate inventories—that provide the basis for our analysis. These inventories, being lists of movable goods owned upon decease, provide rich inspiration for historians. We will use a selection of Cheshire parishes to explore their utility in understanding the dairy economy. Third, the main focus of the paper is the cheesemaking utensils, equipment and furniture of the day. We analyse these working implements, seeking to reconstruct the material working environment. The stuff of manufacture has not featured strongly in agricultural history because scholars have been more interested in the downstream parts of the food system. Here we consider the wood, ceramic, metal and stone that mediated the production of cheese. The paper concludes with a call for work on the evolution of Cheshire cheesemaking in the period after 1750.

### Cheesemaking and the Cheshire Difference

While Suffolk and Essex provided cheese to late medieval and early modern London, it was Cheshire that from the mid-seventeenth century gradually became the capital’s main provider. Our own geography teachers at secondary school gave us the impression that this was inevitable due to environmental conditions in the region that were ideal for the growth of grass, but the favourable combination of soil and climate is not unique to Cheshire.<sup>3</sup> There must have been other factors at work and Thomas Fuller hinted at one of them:

Some E[.]ayed in vain to make the like [of Cheshire cheese] in other places, though hence they fetch’d both their *kine* and *Dary-maids*. It seems they should have fetch’d their *ground* too, (wherin surely some *Occult excellency* in this kind) or else so good cheese will not be made. I hear not the like commendation of the *Butter* in this county, and perchance these two Commodities, are like Stars of a different Horizon, so that the *Elevation* of the one to *Eminency* is the Depress[.]ion of the other.<sup>4</sup>

<sup>2</sup> For a stubbornly contrarian view on Cheshire cheese output in the seventeenth century, see J.P. Dodd, ‘A View of Cheshire: Livestock Farming 1604–1620’, *Cheshire History*, 23 (1989), pp. 12–16.

<sup>3</sup> For more on the Cheshire grass-dairying region, see E.S. Simpson, ‘The Cheshire Grass-Dairying Region’, *Transactions of the Institute of British Geographers*, 23 (1957), pp. 141–62.

<sup>4</sup> T. Fuller, *The History of the Worthies of England* (London, 1662), p. 172. The final sentence implies the use of whole milk in making Cheshire cheese, unlike Suffolk where ‘flet’ or skimmed milk cheese was of poor quality.

It has been suggested that Cheshire in the early seventeenth century was an unremarkable mixed-farming county, so what, then, was responsible for the rise of Cheshire cheese? In our opinion there were two principal factors.

First, the journey to dairy specialism began in the Civil Wars of 1642 to 1651, followed by the Commonwealth to 1660.<sup>5</sup> This was a period of intense military activity in the home nations and the armed forces involved needed to be fed. The position of Chester as a port of embarkation to Ireland gave it a significant advantage in acting as a channel for resupplying armies and garrisons. This meant it had an advantage over Suffolk, which hitherto had been the main supplier of both the armed forces and the domestic market in London.<sup>6</sup> The evidence suggests that Cheshire cheese was first taken to Ireland at scale in 1644, followed by further shipments from Chester, Frodsham and Liverpool to Dublin and Derry between 1646 and 1650. These early forays were by entrepreneurs such as William Harris, John Davies and Charles Walley. The most prominent name later was Denis Gauden, who had begun supplying cheese to Royalist troops in 1642. By 1650 he was the principal navy victualler and a supplier of the parliamentary armies in Scotland and Ireland. His contracts were so large that at times he ran the risk of being unable to procure sufficient cheese. He therefore sought help from the government's commissary at Chester, Captain Whitworth, and official agents in Cheshire, such as Timothy Liveing and Francis Chaplin.<sup>7</sup> Throughout the 1650s Gauden continued his duties and in the first years of the Restoration he was appointed 'Surveyor General of all the victuals to be provided for His Majesty's ships and maritime causes'.<sup>8</sup> Without Gauden and other victuallers like him the efficient functioning of the armed forces would have been impossible. In addition to Cheshire, cheesemakers in the broader region—including north Wales, north Shropshire, Staffordshire and some farms in south Lancashire—were drawn into the expanding trade.<sup>9</sup>

The second element of the Cheshire difference was the organizational and logistical skills of the London wholesale cheesemongers, who spotted the potential of cheesemaking in Cheshire and decided in peace time to turn it to their own advantage. They had previously focused on Suffolk but realised that both supply and quality there were more restricted as farmers switched either to butter-making or to high value arable crops.<sup>10</sup> Although the army and the navy required less provisions after the cessation of hostilities, urban demand grew and the commercial supply of cheese to London that, according to Charles Foster, began in 1650, accelerated as peace brought greater

<sup>5</sup> P.J. Atkins, 'Navy Victuallers and the Rise of Cheshire Cheese', *International Journal of Maritime History*, 34 (2022), pp. 196–209.

<sup>6</sup> F.J. Fisher, 'The Development of the London Food Market, 1540–1640', *Economic History Review*, 5 (1935), pp. 46–64.

<sup>7</sup> C. Armour, 'The Trade of Chester and the State of the Dee Navigation 1600–1800' (Unpublished PhD thesis, University College London, 1956), p. 239; *Calendar of State Papers, Domestic Series, 1651–1652* (London, 1877), p. 554.

<sup>8</sup> For more on Gauden see Atkins, *Navy Victuallers*.

<sup>9</sup> For the presence of the London cheesemongers in Staffordshire, see R. Plot, *Natural History of Staffordshire* (Oxford, 1686), p. 109.

<sup>10</sup> Later, Suffolk was said to produce 'the best butter, and perhaps the worst cheese, in England'. Daniel Defoe, *The Compleat English Tradesman* (London, 1724), p. 79.

prosperity.<sup>11</sup> Much of this trade was coastwise by ketch, the scale of which at the end of the century is clear in the Plymouth shipping news for 31 March 1696: 'Yesterday ... there came in ... about 20 sail of coasters from Chester with cheese for London'.<sup>12</sup> This was probably a convoy providing protection from privateers and two years later in London there was relief when:

From Chester and Liverpool above 600 tons of cheese is arrived here this week; it being such a quantity as has not come at one time this seven years, by reason of the war; and a great deal more is daily expected, which must of necessity reduce the price of provisions.<sup>13</sup>

We cannot say for sure which parts of Cheshire were engaged in this trade but correspondence in 1685 referred specifically to 'Namptwitch cheese' and probate inventories from south Cheshire and north Shropshire in the late seventeenth and early eighteenth centuries did record many examples of cheesemaking implements.<sup>14</sup> As we will see later, Nantwich in the 1660s was also a locus of innovation in pressing cheese.

By 1729 Cheshire was sending 5766 tons to London *via* the Irish Sea and English Channel, and also by barge down the Rivers Trent and Severn.<sup>15</sup> A further 1800 tons went to the navy.<sup>16</sup> This was about half of the capital's cheese supply, facilitated by a number of the cheesemongers based in the City of London's Thames Street.<sup>17</sup>

The Cheshire difference was, then, first a kick-start by the military demand for cheese in the middle of the seventeenth century followed immediately by a profit-motivated traffic organised by powerful and ruthless cheesemongers.<sup>18</sup> One question to answer, though, was whether the agronomy of dairying and the local artisanal methods and technicalities of manufacturing cheese were any different from elsewhere. Our initial null hypothesis is that the answer to this question is no,<sup>19</sup> although one observation suggesting otherwise came from Celia Fiennes who passed through Cheshire on her travels in 1698:

what I wonder'd at was y<sup>t</sup> tho' this shire is remarkable for a greate deale of greate Cheeses and Dairys I did not see more than 20 or 30 Cowes in a troope feeding, but on Enquiry

<sup>11</sup> C.F. Foster, 'Cheshire Cheese: Farming in the North-West in the Seventeenth and Eighteenth Centuries', *Transactions of the Historic Society of Lancashire and Cheshire*, 144 (1994), pp. 1–46.

<sup>12</sup> *The Post Boy* 142, 4 April 1696, p. 1.

<sup>13</sup> *The Protestant Mercury* 303, 28 September 1698, p. 2. The Nine Years' War ended in 1697.

<sup>14</sup> *Calendar of State Papers Domestic: James II, 1685*, 7 February: Peter Shakerly to the Earl of Sunderland; P.R. Edwards, 'The Development of Dairy Farming on the North Shropshire Plain in the Seventeenth Century', *Midland History*, 4.3 (1978), pp. 175–90.

<sup>15</sup> In c.1760 a cheese warehouse, with its own quay, was established at the head of the newly opened navigation cut of the Dee. M.L. Reid, 'The Early Modern Port of Chester', *Journal of the Chester Archaeological Society*, new series 82 (2011), pp. 1–19.

<sup>16</sup> W. Maitland, *The History of London* (London, 1739), p. 554; Foster, 'Cheshire Cheese', p. 9.

<sup>17</sup> W.M. Stern, 'Where, Oh Where, Are the Cheesemongers of London?' *London Journal*, 5 (1979), p. 228; J. Chartres, 'The Marketing of Agricultural Produce', in J. Thirsk (ed.) *The Agrarian History of England and Wales, volume 5: 1640–1750. II: Agrarian Change* (Cambridge, 1985), pp. 406–502.

<sup>18</sup> J.W. Laughton, 'Early modern Chester 1550–1762: Economy and Society, 1662–1762', in C.P. Lewis and A.T. Thacker (eds.) *A History of the County of Chester: Volume 5 Part 1, the City of Chester: General History and Topography* (London, 2003), pp. 137–45. For the financial stranglehold cheesemongers and their factors had over the suppliers, see Chartres, 'Marketing of Agricultural Produce', p. 487; and for complaints against them, see R. Craig, 'Some Aspects of the Trade and Shipping of the River Dee in the Eighteenth Century', *Transactions of the Historic Society of Lancashire and Cheshire*, 114, pp. 99–128.

<sup>19</sup> But for counter arguments, see Blundel and Tregear, 'From Artisans to "Factories"', pp. 708–14.

find y<sup>e</sup> Custome of y<sup>e</sup> Country to joyn their milking together of a whole village and so make their great Cheeses.<sup>20</sup>

In the eighteenth century these ‘great cheeses’ weighed up to 60 lb each, coming from a day’s milk of 25 cows.<sup>21</sup> We will explore the Cheshire approach to cheesemaking further as the paper unfolds.

### *The Source Material: Probate Inventories*

Sources for a history of Cheshire cheesemaking in the early modern period include probate inventories. These were lists of the movable effects of a deceased made public to consolidate the estate and prevent the fraudulent removal of items.<sup>22</sup> Their legal inception was in 1529 and we have them in numbers for 200 years after that. One to two million have survived for the country as a whole,<sup>23</sup> but, impressive as this number sounds, it represents only a small fraction of adult male and widow deaths.<sup>24</sup> Because small estates were rarely inventoried,<sup>25</sup> there is a bias towards the ‘middling’ socio-economic strand of society and this needs to be taken into account in any analysis.<sup>26</sup> Cheshire has 23,540 inventories for our period,<sup>27</sup> and the present paper is based on over 1600 of these (6.8 per cent). The peak of our selection comes in the first half of the seventeenth century, tailing off after 1700. The eighteenth-century decline in numbers of inventories retained by clerks in probate registries was common around the country,<sup>28</sup> and not just a Cheshire phenomenon. We terminate our sequence in 1749 because using the small numbers available to us after that would risk distortion. For the sake of convenience, our period will be divided into four fifty-year segments: 1550–99, 1600–49, 1650–99, and 1700–49.

Although foodstuffs for household consumption were generally excluded from inventories,<sup>29</sup> cheese was semi-perishable and retained its value,<sup>30</sup> so it appears both

<sup>20</sup> C. Fiennes, *Through England on a Side Saddle in the Time of William and Mary* (London, 1888), p. 147.

<sup>21</sup> J. Twamley, *Essays on the Management of the Dairy; Including the Modern Practice of the Best Districts in the Manufacture of Cheese and Butter* (London, 1816), p. 138.

<sup>22</sup> F.W. Steer (ed.), *Farm and Cottage Inventories of Mid-Essex 1635–1749* (London, 1969).

<sup>23</sup> T. Arkell, ‘The Probate Process’, in T. Arkell, N. Evans and N. Goose (eds.), *When Death Do Us Part: Understanding and Interpreting the Probate Records of Early-Modern England* (Oxford, 2000), pp. 3–13; C. Muldrew, ‘Little to Leave: Labourers’ Goods and the Probate Process in Early Modern England’, in M. Lanzinger, J. Maegraith, C. Clementi, E. Forster and C. Hagen (eds.), *Negotiations of Gender and Property Through Legal Regimes (14th–19th Century): Stipulating, Litigating, Mediating* (Leiden, 2021), pp. 311–44.

<sup>24</sup> Mostly adult males because few women (other than widows) and minors left inventories.

<sup>25</sup> Few for estates under £5 survive. M. Overton, ‘English Probate Inventories and the Measurement of Agricultural Change’, in A.D. Van der Woude and A. Schuurman, A. (eds.), *Probate Inventories: A New Source for the Historical Study of Wealth, Material Culture and Agricultural Development* (Utrecht, 1980), p. 209.

<sup>26</sup> M. Overton, J. Whittle, D. Dean, and A. Hann, *Production and Consumption in English Households, 1600–1750* (Abingdon, 2004), p. 22.

<sup>27</sup> Adam Shaw of Cheshire Archives and Local Studies, personal communication, 16 January 2024.

<sup>28</sup> J.S. Moore, ‘Probate Inventories: Problems and Prospects’, in P. Riden (ed.), *Probate Records and the Local Community* (Gloucester, 1985), p. 19.

<sup>29</sup> Moore, ‘Probate Inventories’, p. 13.

<sup>30</sup> G. Riello. “‘Things Seen and Unseen’: The Material Culture of Early Modern Inventories and Their Representation of Domestic Interiors”, in P. Findlen (ed.), *Early Modern Things: Objects and Their Histories, 1500–1800* (New York, 2021), p. 137.

in bulk as a saleable commodity and in small amounts along with bacon and some salted red meats. We no doubt miss some cheese where appraisers recorded it under general headings such as ‘stufte nessisarie in the dayhouse’.<sup>31</sup> We need to remember that appraisers were amateur valuers and, as Rachel Garrard has remarked, ‘assessing working equipment may have required specialist knowledge, which the appraisers did not possess’.<sup>32</sup> Producing one figure for everything in a room was their way of avoiding a detailed list of uncertain values.<sup>33</sup>

Given the variation of practice between appraisers, our opinion is that the number of recorded instances of cheese in our study is likely to be an underestimate, and we may therefore miss an important food of the poor. This is regrettable given the contemporary view that cheese was ‘for the rustically people, labourers, and handcraftes men to fill their bellies, and feed upon’.<sup>34</sup>

Beyond the cheese count, the historical literature is more generally ambivalent about probate inventories. Their flaws cannot be ignored. In the view of some scholars, they remain ‘opaque tools for historical research’.<sup>35</sup> Mark Overton and colleagues refer to ‘a depressingly long list of possible reasons why any single inventory may be misleading’, and there may also be good reasons to distrust groups of inventories.<sup>36</sup>

In our study we have excluded those inventories that record only financial details of debts. These were compiled to make public what was owed, and their deletion has no immediate consequence for our research. On the other hand, we have included the inventories that mention cheese but give no numbers of units, weight or value. Where we do have those figures, we cannot know how representative they are.

A common problem for the historian is linking generic equipment listed in an inventory, such as a ‘tub’, to the practice of cheesemaking, because tubs were also used for washing, salting, brewing and a number of other tasks.<sup>37</sup> In the analysis that follows we have chosen to assume a link with cheese only if such an item is found in a room dedicated to dairying or if it is listed with a relevant prefix as in ‘cheese tub’ or ‘cheese keeler’. We know this will lead to an underestimate of those

<sup>31</sup> The quotation comes from the inventory of John Littler, 24 January 1607/8, Mouldsworth. Bland, *Wills and Inventories*, vol. 2, p. 225. A ‘day’ or ‘daie’ house was a dairy.

<sup>32</sup> R.P. Garrard, ‘English Probate Inventories and Their Use in Studying the Significance of the Domestic Interior, 1570–1700’, in A.D. Van der Woude and A. Schuurman, A. (eds.), *Probate Inventories: A New Source for the Historical Study of Wealth, Material Culture and Agricultural Development* (Utrecht, 1980), p. 62. There is a view, however, that in country areas the value of basic items of husbandry and food processing would have been common knowledge.

<sup>33</sup> Not all appraisals were made in sequence room-by-room. Appraisers in Malpas, Cheshire, for instance, had a practice over many decades of merely listing goods individually without any mention of cheese lofts, dairies or milk houses.

<sup>34</sup> W. Camden, *Britannia* (London, 1607) <https://philological.cal.bham.ac.uk/cambrit/essexeng.html#essex1>.

<sup>35</sup> Riello, ‘Things Seen and Unseen’, p. 124.

<sup>36</sup> Overton et al., *Production and Consumption in English Households*, p. 31. See also M. Spufford, ‘The Limitations of the Probate Inventory’, in J. Chartres and D. Hey (eds.), *English Rural Society 1500–1800* (Cambridge, 1990), pp. 139–74, and L.C. Orlin, ‘Fictions of the Early Modern English Probate Inventory’, in H.S. Turner (ed.), *The Culture of Capital: Property, Cities, and Knowledge in Early Modern England* (New York, 2002), pp. 51–83.

<sup>37</sup> B. Trinder, ‘The Wooden Horse in the Cellar: Words and Contexts in Shropshire Probate Inventories’, in Arkell et al., *When Death Do Us Part*, pp. 275–6.



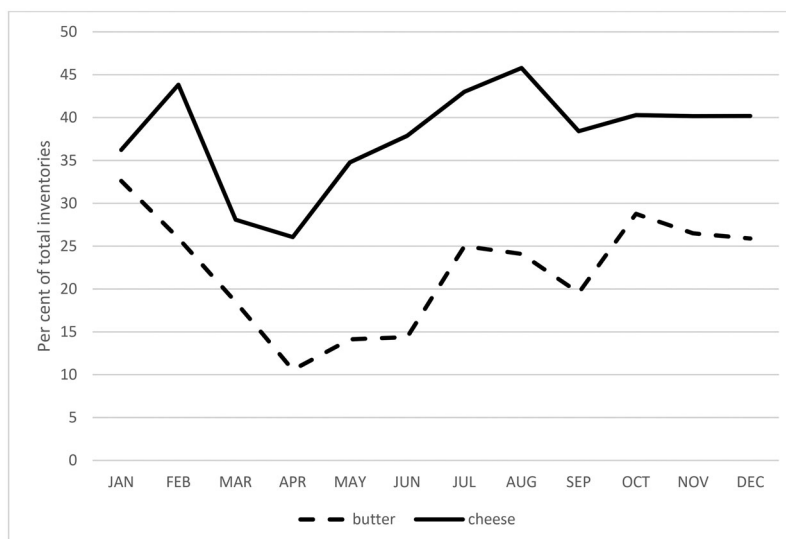


FIGURE 1. The presence of dairy products by month in Cheshire inventories.

*Data Source:* Cheshire inventory database.

vessels used for cheesemaking but taking a more liberal view, for instance counting all tubs and keelers, would lead to an unhelpful overestimate.<sup>38</sup>

Finally, the analysis of rural inventories must take into account the date of appraisal because farming in general, and cheesemaking in particular, were seasonal and the presence or absence of cheese was affected by this. New cheese appeared in Cheshire usually in April/May and was made through to September (Fig. 1), by which time some storage spaces were full. Some mature cheese was kept for a year and earned a premium for its enhanced taste but managing the process of affinage (maturing) was charged with risk, so most cheese lofts emptied out by the time the next season came around.

Despite this list of caveats, we can, and we should, continue use probate inventories. Margaret Spufford was content that using them makes it possible to use ‘broad brush-strokes to draw outlines’ of type of goods commonly listed.<sup>39</sup> For cheese, its presence in the inventories of our period is so common that we can make useful comments about its manufacture and, according to Giorgio Riello, most distortions should anyway disappear when large samples of inventories are considered together.<sup>40</sup> Cheese prices will not be addressed in this paper because of problems

<sup>38</sup> For more on vessels that may have been used in cheesemaking, see P. Brears, *The Dairy Catalogue* (York, 1979); D. Eveleigh, ‘Cooking Pots and Old Curios—The Posnet and Skillet’, *Folk Life*, 32.1 (1993), pp. 7–32; P. Brears, ‘Culinary Artefacts in West Country Households, 1550–1700: Form, Function and Nomenclature’, in J. Allan, N. Alcock, and D. Dawson (eds.), *West Country Households, 1500–1700* (Woodbridge, 2015), pp. 255–70.

<sup>39</sup> Spufford, ‘The Limitations of the Probate Inventory’, p. 146.

<sup>40</sup> Riello, ‘Things Seen and Unseen’, p. 136.



identified by Mark Overton.<sup>41</sup> A comparison of prices between the county and national levels will be attempted elsewhere.

### *Cheshire Inventories and Cheesemaking*

Our selection of Cheshire inventories is determined by the choices of those who undertook the transcriptions rather than by any attempted representativeness by area, occupation or social status. This opportunistic sampling means that we must take care when making generalisations geographically or temporally. The ideal, of course, is to draw carefully crafted samples, and a number of published projects in other counties have gone to great lengths with their sampling frame. In one study a total of nearly three person-years was expended on data entry and analysis in order to facilitate generalizations and comparisons at the scale of two counties.<sup>42</sup> Despite this technical sophistication and its implicit need for the deployment of significant research resources, probate inventories have been used extensively in a minor key in the description of agricultural regions and their economies. Joan Thirsk employed them in Lincolnshire, and she was followed by Barry Holderness in East Anglia, and by David Hey in our region.<sup>43</sup> Inventories have also been used in large numbers to address more general socio-economic questions about early modern England.<sup>44</sup>

Our selection of Cheshire probate inventories has been gathered from eight sources (Table 1), mostly transcripts produced by Cheshire local historians.<sup>45</sup> It contains 176 high status individuals, 288 tradesmen, 671 husbandmen and yeomen, 253 widows and single women, 13 labourers and servants, and 242 with no occupation or status recorded. Although there appears to be a high proportion of urban lifestyles here, 60.4 per cent out of 1643 inventories recorded at least one cow or heifer in milk.

We make no claim that this is a representative sample of the Cheshire administrative or agrarian sub-regions, nor indeed of the social status, occupation, wealth, ages or gender of the people. As a result, we cannot make precise quantitative estimates

<sup>41</sup> M. Overton, 'Prices from Probate Inventories', in Arkell et al., *When Death Do Us Part*, pp. 120–41.

<sup>42</sup> Overton et al., *Production and Consumption in English Households*.

<sup>43</sup> J. Thirsk, *English Peasant Farming* (London, 1957); B.A. Holderness, 'East Anglia and the Fens: Norfolk, Suffolk, Cambridgeshire, Ely, Huntingdonshire, Essex, and the Lincolnshire Fens', in J. Thirsk (ed.), *The Agrarian History of England and Wales, Volume 5: 1640–1750. I: Regional Farming Systems* (Cambridge, 1984), pp. 197–238; D. Hey, 'The North-West Midlands: Derbyshire, Staffordshire, Cheshire, and Shropshire', in Thirsk, *Agrarian History*, pp. 129–58.

<sup>44</sup> Lorna Weatherill used 3000 inventories 'as they came from the [archive] box', and Tom Arkell made regional comparisons from five counties using a mixture of 485 published inventories and unpublished transcriptions by local historians. L. Weatherill, *Consumer Behaviour and Material Culture in Britain, 1660–1760* (London, 1996); T. Arkell, 'Interpreting Probate Inventories', in Arkell et al., *When Death Do Us Part*, pp. 99–102; C. Muldrew, *Food, Energy and the Creation of Industriousness: Work and Material Culture in Agrarian England, 1550–1780* (Cambridge, 2011); J. Sear and K. Sneath, *The Origins of the Consumer Revolution in England* (Abingdon, 2020).

<sup>45</sup> Thanks to one of the reviewers for reminding us of the varying status of the places in Table 1. Alsager is a chapelry and township; the Four Parishes comprise Christleton, Tarvin, Tattenhall and Waverton; Holmes Chapel is a chapelry of three townships; Malpas is a parish of several townships; Stockport refers to the township, not the parish; and Wrenbury is a chapelry of seven townships. Our inventories therefore comprise a mixture of towns, peri-urban areas, and rural villages and hamlets. It is a fair mix of the urban and rural milieux to be found in Cheshire at this time.

TABLE 1.  
Cheshire sample inventories.

<i>Place</i>	<i>Inventories</i>	<i>Dates</i>	<i>Source</i>
Alsager	42	1590–1740	David Jackson
Christleton, Tarvin, Tattenhall and Waverton	317	1554–1649	Four Parishes Research Group 2002–17, Ed. Tony Bland
Congleton	420	1600–1700	David Jackson
Holmes Chapel	18	1619–1738	David Jackson
Malpas	306	1558–1741	Malpas and District Local History Group and David Hayns
Nantwich	329	1603–88	Cockroft 1999 and Nantwich Museum
Stockport	95	1578–1650	Phillips and Smith 1985, 1992
Wrenbury	115	1562–1649	Pixton 2009

*Sources:* David Jackson, personal communication, November 2021; T. Bland (ed.), *Wills and Inventories with Related Documents for Christleton, Tarvin, Tattenhall and Waverton*, 5 vols (Tattenhall, 2002–2017); M. Pearson (ed.), *The Wills and Inventories of Malpas, Tilston and Shocklach from 1603 to 1625*, 3 vols (Malpas, 2005–2009); David Hayns, personal communication, January 2024; J. Cockroft, *Nantwich Wills: Transcripts of Wills and Inventories 1603 to 1688* (s.l., 1999); C.B. Phillips and J.H. Smith (eds) *Stockport Probate Records, 1578–1619* (s.l., 1985); C.B. Phillips and J.H. Smith (eds) *Stockport Probate Records, 1620–1650* (s.l., 1992); P.B. Pixton (ed.) (2009) *Wrenbury Wills and Inventories, 1542–1661* (s.l., 2009).

of the presence/absence of cheese and cheesemaking utensils and equipment, nor can we compare the material culture of cheesemaking with certainty between sub-regions or through time. The presence of acknowledged cheesemaking localities, such as Nantwich, Wrenbury and Congleton in the available material is nevertheless reassuring, and there is some triangulation for both the equipment and methods of Cheshire cheesemaking in writings of the day, as explained below. This has given us sufficient confidence in our results to devote a section later in the paper to a case study of Nantwich, which seems to have been the epicentre of the commercial trade in the south of the county.<sup>46</sup>

### *Methods of Cheesemaking in Cheshire*

One of us can draw upon a lifetime's experience of practical cheesemaking, from which an understanding of practices some 400 years ago can be gained. It is immediately apparent that the manufacture of artisan Cheshire cheese today is very different from the period under consideration, the elements of which were described for the 1660s by Dr William Jackson of Nantwich,<sup>47</sup> and in the 1690s by 'a housewife in Nantwich'.<sup>48</sup> The following step-by-step account uses their testimony, supported by insights from the inventories:

<sup>46</sup> J. Boswell, 'A Description of the County of Chester', *London Magazine*, 19 (1750), pp. 438–40.

<sup>47</sup> P. Savoia, 'Cheesemaking in the Scientific Revolution: A Seventeenth-Century Royal Society Report on Dairy Products and the History of European Knowledge', *Nuncius*, 34 (2019), pp. 427–55; Classified Papers of the Royal Society CLP/3i/22.

<sup>48</sup> J. Houghton, *A Collection for Improvement of Husbandry and Trade* (London, 12 July 1695), p. 154. What follows was later described as 'the old way of making Cheshire cheese'. W. Ellis, *Agriculture Improved: May* (London, 1746), p. 124.

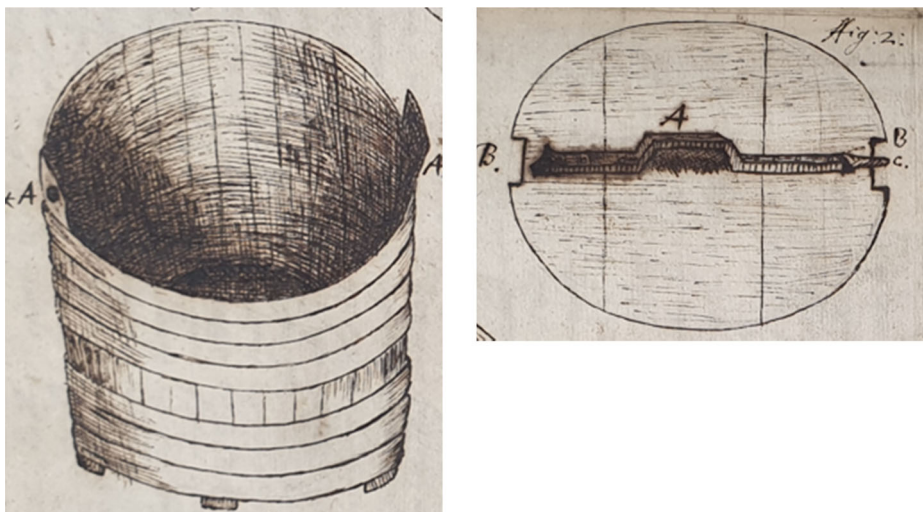


FIGURE 2. A cheese tub and lid.

Source: Classified papers of the Royal Society, CLP/3i/22.



FIGURE 3. A cheese ladder.

Source: Royal Society.

1. The whole milk as it came from the cow was brought by pail and 'siled' into a cheese tub (Fig. 2) to remove dirt, and rennet was added.<sup>49</sup> The sile or sieve was supported on the tub by a cheese ladder (Fig. 3). A lid was then fitted to the tub to control the temperature of synæresis (the process of coagulation and expulsion of whey).<sup>50</sup> Jackson gave the height of a cheese tub at about one and a half feet, with a diameter of two feet. It was made from ash staves with ash hoops around the circumference.

<sup>49</sup> A vegetarian alternative to rennet was lady's bedstraw (*Galium verum*). John Gerard, who was from Nantwich, mentioned it and we may presume that it was used by some Cheshire cheesemakers. J. Gerarde, *The Herball, or, Generall Historie of Plantes* (London, 1597).

<sup>50</sup> Milk cans, tankards, and skeels were also used for milking; siles were similar to sieves, ranges or screens; some cheesemakers poured milk into a cooler, lead or tray to allow the cream to rise; cheese tubs were also known as boyne's, cowl's, stands, and trendles; laths and tongs were the equivalent of cheese ladders or frames; other implements included bowls, pans, pots, trugs, kettles, and keelers (keevers, kivers, killers) or turnells.



FIGURE 4. Cheshire dairymaids thrutching the curd, 1660s.

Source: Royal Society.

2. The rennet ('stoop' in the Cheshire dialect) had previously been prepared by taking the stomach of a newly killed calf, cleaning and salting it for four days, and then hanging it by the kitchen fire for six months. This 'bagskin' was then soaked in an earthenware pot for four days and the liquid used for a fortnight's cheese-making, in a ratio of one part rennet to two or three thousand parts milk. The enzyme rennin in the stoop made the curd coagulate in 30–45 minutes depending upon the acidity of the milk and the ambient temperature of the dairy.
3. When the cheese milk had 'come', forming a gel, the dairy woman stirred it with clean hands and a fleeting dish, then scooping out the curds to separate them from the whey. The curds were gathered with her hands and gently pressed, then 'broke into the vat very small and heaped up to the highest pitch'.<sup>51</sup> The junior dairymaids were now called to 'thrutch' the curds by pressing them down 'with their whole weight' for up to two hours for a large cheese (Fig. 4).<sup>52</sup> This was again to expel as much whey as possible.

<sup>51</sup> Houghton, *A Collection*, p. 154.

<sup>52</sup> For more on embodied practices, see A.B. Evans, 'Enlivening the Archive: Glimpsing Embodied Consumption Practices in Probate Inventories of Household Possessions', *Historical Geography*, 36 (2008), pp. 40–72.



FIGURE 5. A chesfat and cheese bread.

Source: Royal Society.

4. The curds were then transferred to a cheese vat (chesfat) seven or eight inches deep (Fig. 5)<sup>53</sup> lined with cheesecloth made of muslin, calico or flax. The curd normally protruded above the lip of the vat 'straightly bound about with a long narrow peice of cloath, as it were a swath; which keeps it to its fashion; and secures it from cracking'.<sup>54</sup> This swath was called a 'binder' and in the next century it was replaced by a wooden or metal 'fillet' or 'hoop'.<sup>55</sup> If there was not enough curd to fill the vat, a wooden 'follower' was inserted.
5. The vat was placed on a board and pressed for two hours, after which the cheese was put gently into a clean cloth and pressed again for four hours under up to three to four hundredweight, and the process was then repeated with a clean cloth and pressure. After removal from the press, the cheese was put into yet another cloth and left to lie in the vat overnight.<sup>56</sup> It was covered with a lid or 'bread'.<sup>57</sup>
6. The next day the cheese was salted on the outside in a 'powdering' trough, morning and evening for four days, though the largest cheeses had salt mixed with the curd at an earlier stage, about one part salt to 100 parts cheese.<sup>58</sup>

<sup>53</sup> The fleeting dish was the same as a skimming dish. The cheese vat had many alternative names, including moot, mote, form, bate or mould. The preferred Cheshire version was chesfat, with many alternative spellings: chespott, chesfott, chesfette, cheesfite, chesford, chesforth, chesserde, chessite, chesnette, and chesvett.

<sup>54</sup> Savoia, 'Cheesemaking in the Scientific Revolution', p. 452.

<sup>55</sup> Elsewhere the hoop was known as a 'bail' or 'guard'.

<sup>56</sup> The cheese board or plank was known as a shooter in Cheshire.

<sup>57</sup> The cheese press, brizer, stainer, stean or wring had many designs, the simplest being a weight placed on top of the curd. The weights were originally large stones and later of iron or brass for known, accurate pressure.

<sup>58</sup> Some put their cheeses in strong brine for six days, turning daily. W. Ellis, *The Modern Husbandman: for the Month of May* (London, 1744), p. 171.



7. The salt was then washed off with tepid water, and the cheeses wiped with a hair cloth and placed singly on smooth boards or on ‘sniddle’ in a cool place and turned every day for five weeks.<sup>59</sup> After that, cheeses that were to be matured were stored in a wooden rack (a ‘cratch’) and were at their edible best after twelve months.<sup>60</sup> Some cheesemakers rubbed the outside of their cheeses with butter, using about half a pound for a 60 lb cheese.<sup>61</sup>
8. Cheeses were weighed for market with hand scales or a larger balance.
9. The whey was fed to pigs or made into butter and the residue sold to the poor as a drink or as an ingredient for making puddings.

Farmers (yeomen and husbandmen) dominate Table 2, amounting to 40.7 per cent of the inventories in our selection. The yeomen were particularly active in milk production, and their herd size was the largest of any group. They left us 23.8 per cent of the inventories but recorded about 40 per cent of the cow total and declared value of cheese and butter. They were the powerhouse of dairy farming and cheesemaking in Cheshire, as evidenced by their 34.9 per cent of cheese tubs and 33.7 per cent of cheese presses.

TABLE 2.  
Cow and cheese ownership by occupation, 1550–1749.

<i>Occupation or status</i>	<i>Inventories</i>	<i>Cows present (%)</i>	<i>Mean herd size</i>	<i>Cheese present (%)</i>	<i>Cheese press present (%)</i>
Yeomen	391	79.5	6.5	50.9	21.0
Tradesmen	288	42.0	1.7	27.8	15.6
Husbandmen	277	73.3	3.4	33.2	5.1
Widows and single women	253	45.1	2.4	31.2	14.2
No occupation stated	245	63.6	2.7	29.8	9.8
High status	176	63.6	5.2	46.6	23.9
Total	1643	60.4	3.8	36.8	14.8

*Source:* Cheshire inventories database.

The gentry were also significant in the use of technology and accommodation, having the inventories with the highest presence of cheese vats (7.7 per cent) and cheese lofts (17.5 per cent). They also had abundant cheese presses (25.9 per cent). However, it was tradesmen who, more than any other group, had butter churns in their inventories (5.6 per cent), and it was husbandmen who dominated butter production with 30.7 per cent of their inventories indicating its presence.<sup>62</sup>

<sup>59</sup> Cheese was also laid out on mats, tables, shelves, planks and shooters. Sniddle was freshly cut sedge, rushes or coarse grass.

<sup>60</sup> William Ellis (1750 ed., p. 116) argued that a Cheshire cheese was better to eat ‘if it is two or three years old’. Other names for a cheese rack were rake, reck, crate, hake and tack. Scales were also called paise, payce, payse, pease or poyshes.

<sup>61</sup> Many rubbed the outside of the cheese with butter. N. Bailey, *Dictionarium Domesticum* (London, 1736), n.p.; Ellis, *Modern Husbandman*, p. 171.

<sup>62</sup> It may be that the tradesmen were producing for sale and with a rapid turnover they were therefore less likely to have butter in storage.

TABLE 3.  
Evidence of cheesemaking in the Cheshire inventories, 1550–1749.

		<i>Records of milk production and cheesemaking expressed as a percentage of the inventories for each time period</i>						
<i>Inventories</i>		<i>Mean herd size</i>	<i>Cows and heifers in milk</i>	<i>Cheese</i>	<i>Cheese press</i>	<i>Cheese vat</i>	<i>Cheese tub</i>	<i>Cheese loft</i>
1550–1599	133	3.7	79.7	22.6	0.8	1.5	0.0	1.5
1600–1649	994	4.0	66.8	41.4	12.7	4.0	1.6	3.6
1650–1699	465	2.7	45.8	30.5	20.7	8.2	8.2	8.0
1700–1749	52	9.4	75.00	42.3	38.5	1.9	23.1	1.9

*Source:* Cheshire inventories database.

The tradesmen were present in numbers, especially in the urban environments of Nantwich and Stockport, where some occupied positions such as shoemaker, apothecary, mercer, innkeeper or carpenter, while others were part-time farmers with by-employments like butcher, weaver, miller, skinner, or tanner. Just under half of them had a cow. Widows, spinsters and other single women represent fifteen per cent of our Cheshire inventories and their position with regard to milk production and cheesemaking seems to have been similar to that of the tradesmen. It was common for widows to lose the bulk of their husband's assets due to the provisions in his will but some at least were able to maintain a degree of domestic self-sufficiency in dairy products.

Dairy farming was developing in Cheshire in the period 1550 to 1749. As Table 2 indicates, the mean herd size remained below four up to 1700, and only 36 out of 1643 inventories record herds of over 20 cows, implying that milk production on most farms remained on a small or medium scale.<sup>63</sup> The overall county output must nevertheless have been substantial given that 60 per cent of the inventories show at least one cow or heifer in milk. The presence of stored cheese was also common. Although its weight or value is rarely recorded, we can surmise that cheese was present in a quantity sufficient to catch the appraisers' eye and not just a small piece as a snack.<sup>64</sup> Table 3 gives a clear indication of the progress of specialization, with cheese tubs increasingly identified. Figure 6 depicts the same advance for cheese presses in the county, an innovation pioneered by the gentry and yeomen, who were in a position to afford the equipment described by William Jackson. The average cost of a press in the first hundred years of our period was just over 2s.6d, but this doubled between the Restoration and the end of the seventeenth century and rose again to 8s.3d by 1749. Our guess is that there were several concurrent designs, including a simple press valued at less than 2s.6d which represented 37.3 per cent of the total in our selection, especially before 1640. Proof is scarce but we think this involved some means of delivering a heavy stone on top of a board pressing down the cheese. A second design, a more complex construction possibly resembling the Jackson press in Fig. 7, spread from the 1670s and 80s onwards. Evidence for this is

<sup>63</sup> The small herd sizes in Table 2 differ from those in Hey, 'The North-West Midlands'.

<sup>64</sup> The weighing and valuation of cheese was either at market or, increasingly, by the cheese factors who assembled supplies for London.



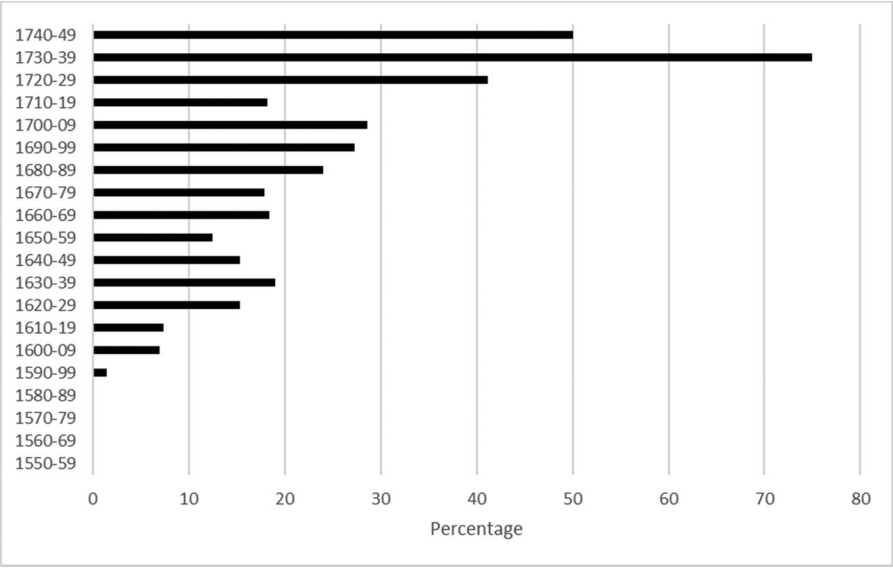


FIGURE 6. The percentage of Cheshire inventories that had at least one cheese press, 1550–1749.

Source: Cheshire inventories database.

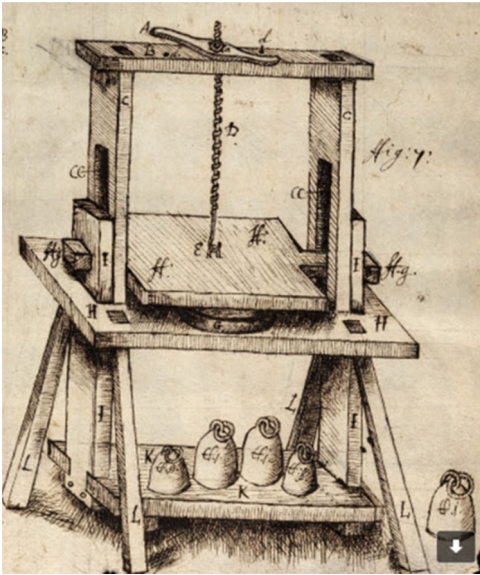


FIGURE 7. Jackson’s drawing of a Nantwich cheese press in the 1660s.

Source: Royal Society.

TABLE 4.  
Inventories matching four, five or six criteria.

<i>Place</i>	<i>Inventories</i>	<i>4 matches</i>	<i>5 matches</i>	<i>6 matches</i>
Alsager	42	1	0	1
Four Parishes	317	2	1	0
Congleton	420	7	10	1
Holmes Chapel	18	3	0	0
Malpas	306	3	1	0
Nantwich	329	13	12	6
Stockport	95	1	0	0
Wrenbury	115	1	1	0

*Source:* Cheshire Inventories Database.

the 5–10s valuation that became common then, along with the occasional mention of a screw mechanism.<sup>65</sup>

A puzzling feature of Table 3 is the apparent general lack of cheesemaking accommodation and storage. It was not until the late eighteenth and nineteenth centuries that Cheshire landlords provided dairies, cheese chambers and cheese lofts for their farm tenants, and meanwhile cheese was made in the kitchen.<sup>66</sup> The situation in Berkshire (1660–1750) was very different, with 1149 out of 4041 inventories mentioning dairy facilities or products.<sup>67</sup>

One final point to make about change through time is the relationship between cheese and butter. Intriguingly, from 1550 to 1599 the number of mentions of each in the inventories was even, 30 to 29, dispelling any idea of early specialisation. In the fifty years that followed, the ratio fell from 1:1 to 1.36:1, then to 6.5:1 in the second half of the seventeenth century. Finally, from 1700 to 1749 there were no mentions of butter. The shift in the centre of gravity to cheesemaking was now complete.

### *Intensive Cheesemaking in Cheshire*

So far, our discussion has been based upon the presence of cheese in an inventory, yes or no. But how do we know if the testators were cheesemakers, on either a domestic or commercial scale? The answer lies in the items listed by the appraisers. In order of the most commonly referred to in the Cheshire inventories, and also the most likely to have been essential in the possession of cheesemakers: (a) cows and heifers in milk; (b) a store of cheese; (c) a cheese press, (d) a cheese vat; (e) a cheese tub; and (f) manufacturing and storage accommodation such as a cheese loft or chamber. A full set of these items was rare in the Cheshire inventories, only eight in the period 1550 to 1749 (Table 4), 25 with five present, and 31 with four. This is 64

<sup>65</sup> Screw presses were not new, however. The screw mechanism was mentioned in two Nantwich inventories: those of Raphe Wicksteed in 1638 and Randle Walton in 1649.

<sup>66</sup> G. Scard, *Squire and Tenant: Life in Rural Cheshire, 1760–1900* (Chester, 1981), pp. 68–9.

<sup>67</sup> The source for these calculations was the set of inventory transcriptions kindly supplied by Professor Mark Overton.

inventories out of 1600, modest indeed. The 64 were made up, not entirely by farmers, as might be expected, but with more high-status individuals and tradesmen than predicted by their contribution to the overall inventory database. A reason was that the environs of Nantwich and Congleton dominated this high-intensity dairying and not the deepest countryside as might have been expected. The urban and peri-urban dwellers had more to invest, more ideas about how to make their cheesemaking efficient, and a greater opportunity to market their product.

We are the first to admit that counting numbers of utensils and pieces of cheese-making equipment in this way can be problematic for a number of reasons. First, in the case of the cheese intended for market, we would expect much of it to have been sold by the end of the calendar year, leaving empty cheese lofts and depleted winter inventories, reflecting the lack (Fig. 1). In the case of our sub-set of 64 inventories this does not seem to have made a difference because only four of them lacked cheese and as few as three had no cows.

Second, we cannot be sure that a full list was provided in every inventory. Some appraisers valued all the items in the cheese room individually, but others were less scrupulous. Thus, Robert Dutton, who died in Waverton in 1610, was said to have a ‘chisse press and other implements’, while Elizabeth Cotton of Combermere in 1641 was appraised for ‘all the treenen [wooden] ware in ye dairy howse’.<sup>68</sup> It is noticeable that 28 inventories of the 64 had no cheese tub and 23 no cheese vat. These were cheap wooden items by comparison with cheese presses—absent in only five—and possibly omitted as worthless.

Third, the period under review was one where certain items of equipment had multiple uses and therefore cannot definitively be linked to specialist cheesemaking tasks. Tubs are an example, along with other general-purpose receptacles such as turnells, bowls, pans, trugs, buckets, pails, vats, and troughs, among others. We are therefore thrown back upon the individual context to judge the likelihood of use in cheesemaking, a long and arduous task that is fraught with the possibility of misjudgement.

Finally, vocabulary in the period under review was flexible.<sup>69</sup> The same word had different meanings according to geographical location. A ‘hoop’ in Cheshire was a synonym for a cheese binder, fillet or guard, made of wood or tin and used to raise the sides of the cheese vat when it is first put into the press. But in Shropshire hoops were used for measuring corn.<sup>70</sup> In general cheesemaking parlance a ‘stand’ was a hoop to support a new cheese, but a ‘stand’ or ‘stound’ in the north of England was a wooden or earthenware vessel. Confusingly, a cheese ‘tong’ could mean either the frame put on top of a tub, or a cheese press. Similarly, a ‘tack’ was either a metal band sometimes affixed to a cheese hoop, or a hanging shelf.<sup>71</sup>

A fundamental difference in inventory scholarship exists between those who accept Tom Arkell’s assertion that ‘the existence of some foods can be inferred from the

<sup>68</sup> This is not such a problem in Cheshire as in other counties.

<sup>69</sup> E. Weiner, ‘The Language of Probate Inventories’, in Arkell et al., *When Death Do Us Part*, pp. 255–67.

<sup>70</sup> Trinder, ‘The Wooden Horse in the Cellar’, p. 277.

<sup>71</sup> An account of the Cheshire dialect in modern times was given by T. Darlington, *The Folk-Speech of South Cheshire* (London, 1887), and for England as a whole by J. Wright, *The English Dialect Dictionary*, 6 volumes (London, 1898–1905).

listing of ... processing equipment' and those who need broader proof.<sup>72</sup> We fall into the latter camp and also think it insufficient to say that the presence of a cheese vat or a cheese chamber is conclusive evidence of commercial cheesemaking. Given the patchy nature of recording in Cheshire inventories, we admit that our approach may lead to underestimation. But the opposite problem is illustrated by two previous works on Cheshire inventories. David Hey sampled 63 inventories for the 1660s and found that 54 (85.7 per cent) of them listed cheese.<sup>73</sup> A third of his inventories had stocks of cheese worth over £10. His conclusion was that 'large quantities were made throughout the county except on the poorer grasslands of the Wirral'. More recently Keibek and Shaw-Taylor reported that in their Cheshire sample 'no secondary sector inventories were found that contained dairying equipment (such as butter churns or cheese presses) but no cattle and, vice versa, almost all inventories with clear and substantial evidence of cow keeping also contained clear proof of dairying activity'.<sup>74</sup> On the contrary, in our selection of 1600 inventories, in similar places in the same county, we found 163 inventories with cheesemaking but no cows and 362 with cows but no cheese or cheesemaking. This means either that our selection of inventories is less complete than those used by other scholars in Cheshire, an unlikely scenario, or that milk or cheese was being moved in bulk from farm to farm. Given that Celia Fiennes commented on milk pooling, we assume that we have uncovered supporting evidence. This may have happened in rotation among cooperating neighbours or, more likely, on the farms with the most appropriate facilities and utensils.<sup>75</sup>

Apart from Celia Fiennes, there is no direct evidence of milk pooling but it would have made sense once the London cheesemongers began demanding larger cheeses.<sup>76</sup> The greater density of population in and around the towns would have made access to a collectively convenient location easier for those farmers who together had the 25 cows necessary to make a 60 lb cheese. Since the average herd size was five or six cows for most of our period, this would have meant five milk producers clubbing together, quite a logistical feat.

### *Cheesemaking in the Nantwich Inventories*

As indicated above, Nantwich by the late seventeenth century was at the centre of Cheshire cheesemaking. Its position in the south Cheshire plain was promising from the point of view of the availability of pasture and access to transport networks,<sup>77</sup> as was its long tradition of salt-making, first from local brine springs and later from rock salt mining.<sup>78</sup> Salt was an important ingredient in cheesemaking but it was

<sup>72</sup> Arkell, 'Interpreting Probate Inventories', p. 93.

<sup>73</sup> Hey, 'The North-West Midlands', p. 154.

<sup>74</sup> S.A.J. Keibek and L. Shaw-Taylor, 'Early Modern Rural By-Employments: A Re-examination of the Probate Inventory Evidence', *Agricultural History Review*, 61 (2013), p. 262.

<sup>75</sup> There is the alternative that large numbers of very small cheeses were marketed, but this would not have made commercial sense.

<sup>76</sup> C.F. Foster, *Cheshire Cheese and Farming in the North West in the 17th and 18th Centuries* (Northwich, 1998), p. 12.

<sup>77</sup> <https://en-gb.topographic-map.com/map-tsjpg/River-Dee/?center=53.09798%2C-2.43705&zoom=11>.

<sup>78</sup> Rock salt was mined from the 1680s.

expensive to transport, so having this resource to hand was an advantage. Of all the Cheshire inventories, Nantwich has most detail on amounts of cheese in store. This is recorded either as the weight of cheese or the number of cheeses, but the most frequently mentioned measure was its value. We have this for 60 of the 329 inventories, including 19 with £20-worth of cheese or more, the largest amounts being held by Gabriell Stringer (innkeeper, 1667) £70, Katherine Davenport (widow, 1683) £67, and Jane Beckett (widow, 1682) £50.

Only three inventories in our Cheshire selection allow us to judge the size of cheeses, all of them in Nantwich: those of Richard Wilberham (Gent., 1613) 11.6 lbs per cheese, Hugh Mainwaring (Gent, 1621) 18 lbs, and Thomas Clayton (Gent., 1633) 13.9 lbs. According to Charles Foster, working with the London Port Books, the average size of Cheshire cheeses sent to the capital began to exceed 25 lbs in the early eighteenth century, a time when our inventories were becoming fewer in number.<sup>79</sup> By the end of that century they were commonly 60 to 120 lbs.

The value of cheese in our inventories varied from 1.50 to 3.5d per lb but the mean 1600–1749 was steady at 2d. Using this as a divisor for the Nantwich inventories where values are declared, we can say that fifteen testators had a ton or more on their death, with the largest being the 3.75 tons left by Gabriell Stringer in 1667. Stringer also had the largest herd of cows, at 23, a distinction he shared with Raphe Crockett (Gent., 1604). Stringer was innkeeper of The Red Lion in Welsh Row (later renamed The Wilbraham Arms) and did not need this amount for his trade, so he must have been a dealer in cheese. However, the correlation in our selection between herd size and cheese in store is not statistically significant, suggesting that entrepreneurs like Stringer and Crockett were either buying in cheese or using the milk of others to make the cheese themselves. Both had cheesemaking equipment.

In the 329 Nantwich inventories, two categories of people stand out with regard to the quantity and variety of cheese equipment recorded. The first are the local gentry and second the innkeepers. Among the gentry, the Mainwaring, Wickstead, Minshull, Maisterson and Church families are conspicuous. In 1621, Hugh Mainwaring, Gent., had 'seven score and thirteen' cheeses in his cheese chamber, six cheese boards (to cover the cheese vat or mould when in press), cheese fats and a cheese press. In 1637, William Mainwaring, Gent., had cheese fats in the cheese chamber, cheeses, cheese boards' and a 'frame' for cheeses.<sup>80</sup> In 1638, Raphe Wickstead, Gent., had a cheese tub and lid, five milk 'bowkes' (large tubs), a cheese ladder, two 'chespittes' (cheese moulds), 50 cheeses, four long cheese boards and six round ones, a cheese press with its screw, a stool, and two gallons of whey butter. In 1662, Robert Wickstead, mercer, had 34 cheeses, the cheese boards and a cheese press. In 1634, John Minshull, Gent., had four cheese boards, two butter basins two cheeseboards, one cheese ladder, cheeses, cheeseboards and one cheese press. In 1624, John Maisterson, Gent., had a cheese press and five cheese fats, two 'leads' for milk (a shallow lead receptacle in which milk was cooled and the cream rose), cheese and cheese boards. In 1635, Thomas Church, Gent., had in the dairy house, one

<sup>79</sup> Foster, *Cheese Cheese and Farming*, p. 13.

<sup>80</sup> A cheese frame was either a support used when the curd was being pressed, or a wooden construction used in drying cheeses.

cheese press, cheese boards and cheeses. And in 1637, Richard Church, Gent. (Thomas's cousin living at Church's Mansion) had 20 cwt of cheese and a cheese press.

It was not unusual for cheese to feature in an innkeeper's inventory, but what is surprising in Nantwich is that cheesemaking equipment is also recorded. This may indicate that innkeepers, along with the gentry listed above, may have been involved in large-scale, and possibly collective, cheesemaking. In 1604, Raphe Crockett, landlord of The Crown (the most important inn of the town), had a cheese press, 'five score of cheeses, more cheese in the loft over the kitchen, another four score and nine cheeses, fouretine cheese bord[s]', six gallons of whey butter (a by-product of cheesemaking) and one other cheese. In 1620, Thomas Dewhurst, innholder, had cheese, whey butter, one cheese fat and one cheese board. In 1625, Edmund Myles, innkeeper of The Lamb (the second most important inn) had cheese and a cheese press, and in 1627 his widow, Elizabeth, had cheese and a cheese press, and in 1640, his son Edmund also had a cheese press.<sup>81</sup> In 1636, Raphe Latham, innholder, had one cheese presse, eight 'cheesefoldes' (cheese moulds), twelve hundred [weight] of old cheese, new cheese, one cheese frame, and ten milking pails. Also in 1636, Matthew Massie, innholder, had one cheese press, a tub, cheese fats and cheese.

Earlier we discussed six variables by which to judge intensive commercial cheesemaking. Of the eight inventories in our Cheshire selection that met all six, Nantwich had 75 per cent of them, and half of those with four. Those of Hugh Mainwaring (1621), John Judson (1634), Mattheve Massie (1636), Gabriell Stringer (1667), Margaret Watson (1671), and John Millington (1675) met all the criteria.

Others with five or six items included Richard Simcock (yeoman, 1633), who had 'ten cheeseboards and tubs, eight cheeses, one cheese presse and cheesefates'. In 1666, Thomas Marshall had 10 cheeseboards in the cheese chamber, also one cheese 'tubb', one cheese press, two stones, one hoop and three 'cheesefatts'. In 1670, Fulke Griffin, butcher, had old cheeses in a cheese chamber, one cheese 'presse', six chesfitts, one cheese tub, three cheese boards and five milk 'pales'. And in 1683, Katherine Davenport, widow, had two cheese presses, cheese tubs and 'chesfatts', milking pales, four 'cheesboards' and eight score cheeses.

Cheese tubs were mentioned in 22 Nantwich inventories and cheese ladders in three. 'Cheesefattes' occurred in 32 and the numbers in each case range from one to as many as fourteen. Cheese boards were a common accessory, and they probably had a variety of uses other than being lids to a 'cheesefatte'. There were 49 instances of them in Nantwich inventories, along with 92 cheese presses (and one 'stoond to press cheese with'),<sup>82</sup> ten cheese frames, five cheese ladders, and four cheese shelves. Among the minor utensils and equipment were two cheese lids, two cheese tables, two hoops, and one cheese crate, cheese 'soucke', cheese fork, and cheese tester. 25 inventories mentioned cheese chambers and these housed five milk pales, two milk

<sup>81</sup> This may have been the same press in all three inventories.

<sup>82</sup> Eleven mention pressing stones, which were inexpensive, valued at 1s.0d in 1629. Cheese presses are the most indicative of all cheese making items that cheese manufacture was being carried out at some time on the premises. As far as we know, none of these early modern cheese press stones have survived, nor have the wooden cheese presses.

leads, one milk ‘bowk’, one milk pan, ten quantities of butter, two churns, and one butter basin.

The Nantwich cheese press illustrated by Jackson was a complex device (Fig. 6). It had a screw mechanism to apply pressure, a platform on which to place the cheese vat and a movable board to cover it. Additional weights were at hand to add when necessary. This was equipment that would have required skilled carpentry and was not something that could have been designed and built by the average cheesemaker. The only joiner in our Nantwich inventories is William Smith, who died in 1676, and if he was not responsible for Jackson’s press, he would surely have known who was.<sup>83</sup> Nantwich was a town of about 2500 inhabitants, not large enough to support more than a handful of agricultural tool makers or carpenters, and yet there was clearly enough cheesemaking to encourage innovation and artisan manufacture.<sup>84</sup> We cannot say for sure that this particular design of cheese press was a local one but it is plausible.

## Conclusion

To recall our original proposition of a Cheshire difference, we remain convinced that the initial boost to Cheshire cheesemaking was a construction of the political circumstances of the mid-seventeenth century coupled with the assembly of a new food system supplying the rapidly growing needs of consumers in London. Without the war, the Commonwealth, and the Restoration, it is possible that Cheshire farmers would have continued the risk-minimising model of mixed agriculture that served them well in the sixteenth and early seventeenth centuries. They might not have come under the influence of Denis Gauden, followed by the London cheesemongers, and their cheesemaking efforts would have continued to serve only their own domestic needs. Instead, by 1729 they were sending 7500 tons of cheese per annum to London and the navy. Since each Cheshire cow at that date was producing about 2.0cwt of cheese, this meant that 75,000 of them were required to fulfil the trade, and further numbers for the nascent markets in the industrial and urban areas of North-West England. This was more than enough to force a make-over of the county’s agriculture.

Whether Cheshire techniques of cheesemaking were unique is debatable. More work on methods used in other counties is required to enable comparisons. What we can say is that the surge in Cheshire production was based on the use of utensils and equipment mainly made of carved, turned or coopered wood, with lesser evidence of ceramic vessels. Proof of metals such as tin, bronze (copper/tin), brass (copper/zinc) and iron is harder to come by because of the cost, though they gained some ground later in our period.<sup>85</sup> Cheshire sandstone, available in quantity from local quarries, was easily worked and convenient for troughs or the stones that were used in cheese pressing. Stone presses predated the wooden designs that seem to have arrived in

<sup>83</sup> Cockroft, *Nantwich Wills*, Volume 5, p. 292.2.

<sup>84</sup> P. Clark and J. Hosking, *Population Estimates of English Small Towns 1550–1851* (Leicester, 1993), p. 13.

<sup>85</sup> C. Green, ‘Cast Bronze Cooking Pots in England, 1500–1720’, in J. Allan, N. Alcock, and D. Dawson (eds.), *West Country Households, 1500–1700* (Woodbridge, 2015), pp. 309–19.



numbers in the late seventeenth century, and they later regained popularity in the eighteenth and nineteenth centuries when larger cheeses required the application of one ton or more of pressure to fully expel the whey. Our argument is that a study of cheesemaking utensils, equipment and accommodation is important because it is indicative of the processing regime and its technical limits. Other cheesemaking regions had a different of raw materials, skills, organization, and locational attributes and this probably helps to explain why English territorial cheeses came to differ from each other and had varied competitive advantages and constraints.

We have raised the possibility of collective cheese production by milk pooling in Cheshire. Celia Fiennes observed this in 1698 but, if it existed on any scale, it would have been the demands of the cheesemongers that drove it forward in the eighteenth century. It would not have lasted long, however. It was not mentioned by Wedge in 1792, probably because the process of increasing farm and herd size noticed by Charles Foster for 1660–1750 had continued and by then had empowered individual dairy farmers to produce one cheese of sufficient size every day in season to satisfy the market.<sup>86</sup>

It was not until the mid-nineteenth century that competition from cheddar cheese and imports from America began to affect Cheshire agriculture. Farmers then changed their techniques to produce a fast-maturing cheese that suited the tastes of industrial workers in the North of England, and this came to replace the export of cheese to London. Further research is required to investigate this later period, with a view to uncovering the unfolding biography of a cheese that did not stand still. The Cheshire cheese we eat today is only the latest version. The name is the same, but the substance has changed several times as the implements, the personnel, the chemical processes and the marketing have all been modified.

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<sup>86</sup> Foster, *Cheshire Cheese and Farming*, p. 14.