

Trade and Consumption Patterns in Central Southern England: the Supply of Iron and Wax to Winchester College c. 1400-1560*

Winifred A. Harwood

I Introduction

Major institutions such as Winchester College were also major consumers and thus their records illuminate not only their household purchasing practices, but also patterns of supply, retailing, internal and international trade more generally. This article examines the supply of iron and wax to Winchester College over an extended period of time and thus illustrates both local and international routes of trade. Winchester College used a range of suppliers: conveniently situated small-scale local retailers, whose prices reflected their role as middlemen; specialist centres of production, specifically the Forest of Dean and the West Midlands; and bulk suppliers in London and Salisbury, but only seldom in Southampton, although much wax and iron were shipped in *through* Southampton.¹ This article also traces significant changes in the direction and organisation of trade over 160 years.

Supply and retailing have only recently become a major interest of economic historians, for whom overseas trade, exports and imports, have long been a primary concern. Professor T.S. Willan, for many years an isolated enthusiast, produced a collection of his studies on inland trade only in 1976,² the same year that, coincidentally, J.A. Chartres drew attention to the lack of modern research on the subject. Both Chartres and Willan focused on the early modern period, yet already Professor Barrie Dobson had written much of value on the trade of early fifteenth-century Durham.³ Subsequently, much further research has been undertaken by Richard Britnell, Bruce Campbell, Christopher Dyer, James Galloway, John Hare, Derek Keene, Maryanne Kowaleski, John Lee, Margaret Murphy, Miranda Threlfall-Holmes and others.⁴

A major reason for the earlier neglect of internal trade was the

absence of suitable source material. In comparison, overseas trade, a lucrative source of income for the crown, left copious records, and this useful statistical data led to the pioneering work of historians such as Carus-Wilson, Coleman, Fryde, Postan and Power.⁵ The few records which do exist for inland trade are restricted in value. For instance, the chamberlains' accounts for Newcastle-upon-Tyne, 1508-11, throw light on the importance of the Tyne coal trade but for a very limited period only.⁶ Similarly, although the aulnage accounts can indicate the importance of the cloth industry in specific localities in limited periods, their reliability has been questioned and some of the later accounts have been found to be untrustworthy.⁷ The best surviving source for inland trade is, undoubtedly, the collection of fifteenth-century Southampton brokerage books which record goods leaving the port by road for towns and villages in Hampshire and beyond.⁸

Late medievalists have also appreciated the value of analysing the domestic accounts of large households to understand their purchasing practices and local economies. The late medieval consumer and the market have been a strong theme in the work of Christopher Dyer among others.⁹ As other consumers and their archives have been researched, further studies have been published. Individually, they throw light on the supply of specific commodities and the trade of the particular region in which the household is located. Collectively, they have given a deeper understanding of the inland trade of England as a whole. For the north-east of England, Miranda Threlfall-Holmes studied the marketing strategies of the monks of Durham Priory, exploring, for instance, their consumption of imported goods such as wine and spices.¹⁰ In doing so, she was building on the earlier work of Professor Barrie Dobson, who examined the effect that Durham Priory, the greatest bulk purchaser in northern England, had on the economy of its region.¹¹ Similarly, East Anglia has benefited from the surviving household accounts of King's Hall, Cambridge, and more recently from research undertaken by John Lee.¹² Using evidence from taxation records and details of purchases made by Cambridge colleges, Lee has produced a detailed insight into Cambridge and its economic region in the period 1450-1560. For central southern England, and Hampshire in particular, the author has studied the less well-documented monastic house of St. Swithun's Priory, Winchester and the consumption and supply of Winchester College.¹³

Amongst the best such collections of data are the records of Winchester College which has an enviable medieval archive that includes bursars' accounts, counter rolls, estate accounts, hall books and inventories. The bursars' accounts were particularly relevant to this

research. Unlike a monastery, in which expenditure was divided by function between different obedientaries and their accounts, all expenditure at Winchester College was collected in the portmanteau accounts of the bursars.

The earliest domestic accounts for Winchester College are those of John Morys, the first warden who had been appointed by the founder, William Wykeham. Written in Latin, the first account is a short one, covering only a 26 week period, from March, when the College opened, through to Michaelmas, the customary time when accounts closed and when the new financial year began. It records the income received from College estates and the cost of commons for the earliest members of the College. The name of the first warden appears at the top of four other early College accounts.¹⁴ These earliest accounts closely resemble the later bursars' account rolls into which they evolved. The first of this main series of bursars' account rolls, and the first account to bear the name of two College bursars, relates to the accounting year 1397-98. An impressive series of rolls has survived, and extends from the financial year 1397-98 to the accounting year 1555-56. After that, the bursars wrote their accounts in books. The rolls cover a period in excess of 150 years, and the earliest ones are now over 600 years old. This remarkable series is virtually complete, with only 28 years being unrepresented.¹⁵

To have a virtually complete series of accounts is a great advantage, although some commodities received better coverage than others. For instance, while the bursars meticulously recorded weekly, termly and annual figures based on allowances for food per person according to status, they did not specify food supplies purchased and consumed, except in a few accounts at the end of the period researched. While it is unfortunate that the bursars of Winchester College did not generate detailed accounts for food and drink, comparable to those of Cambridge or Durham before the mid-sixteenth century, some select commodities were itemised sufficiently well to cast light on regional trade, in particular iron and wax, which are discussed here. While information for these two commodities is limited for the early years of the fifteenth century, much greater detail is available thereafter. Since the nearest port to the College was Southampton, some 12 miles (19 kilometres) away, entries from the Southampton brokerage books complement the detail in the College accounts. This article, therefore, is a contribution to the historical understanding of the regional trade of late medieval England and in particular of the supply of two key commodities to a bulk consumer in central southern England. Although this article relates only to two commodities, albeit essential products, it contributes significantly to our understanding of the inland trade of this region and, indeed,

England more generally, and complements and enriches the more wide-ranging data to be extracted from the Southampton brokerage books.

At its foundation in 1382, Winchester College was almost certainly the greatest medieval school in England. It had a total household size of approximately 130 people and it operated as a very large residential household in Winchester. The size of the College household can be compared with others. In 1383-84, one year after the foundation of Winchester College, Thomas Arundel, Bishop of Ely, had a household of 82; in 1406-7, Richard Mitford, Bishop of Salisbury, 73; in 1409-10 Edward Plantagenet, Duke of York, 91.¹⁶ At Westminster Abbey c. 1500 there were around 110 servants in addition to 50 monks.¹⁷ In 1536, when commissioners visited St. Mary's Abbey Winchester, they listed a total of 102 persons of whom 26 were nuns.¹⁸

The College was founded to fulfil at least four objectives: intercession for the soul of the founder as a large chantry college; provision of a residential grammar school education for at least 80 pupils at any one time; their preparation for further study at New College Oxford; and the training through these two institutions of well-qualified recruits to the clergy. A lavish endowment underpinned the expensive running costs of the college. At the eve of the dissolution of the monasteries, the College was the third wealthiest institution in Hampshire (with the exception of the Bishopric) with a gross annual income of £710.¹⁹ The cost of feeding the household and the supply of other items such as cloth, horseshoes, nails, pewter and wax were among the many commodities for which the College bursars had to account. Thus, the College was an important spender and purchaser in the city of Winchester and a major bulk consumer in southern England.

II Iron

Iron was an essential commodity which, in the middle ages, could not be home produced in sufficient quantity, and was, therefore, an important element of internal and international trade. Iron was much in demand and was used routinely for numerous purposes – for example, agricultural tools, armaments, decorative work, horseshoes, locks and keys – and for major domestic and ecclesiastical building projects.

Iron ore can be found in many English counties. Carbonate ores are found in the Weald, the Cleveland Hills as well as in Lincolnshire, Northamptonshire and Oxfordshire. Haematite is found in Cumbria and Lancashire, Limonite in South Wales and the Forest of Dean, and bog ore in the moorland areas of the North of England. In the middle ages the most important sources of iron ore were Cumbria, Durham, the

Forest of Dean, the Midlands, Northumberland and South Yorkshire.²⁰ Iron ore had first to be mined and then smelted at high temperatures in bloomeries.²¹ A bloomery required vast quantities of wood in the form of charcoal, and a plentiful supply of water, initially for washing the ore and quenching the resulting product. Water-power was needed to forge the iron.²² Easy access to a river was also desirable to transport this heavy commodity. Whether by water or by land, transportation added considerably to the overall cost of iron.

While small-scale bloomeries provided limited quantities of home-produced iron each year, iron was also imported into England from France, Germany, Spain and Sweden.²³ Before the end of the fifteenth century, England had become heavily dependent on Spain for imports of iron. The Basque region produced a particularly good quality ore and was ideally situated for exports to be shipped, through Bilbao. Imports of iron, in the region of 3,500 tons a year, were brought into the country through ports such as Bristol, Chester, London and Southampton.²⁴ While the cost of Spanish iron was relatively low, after shipping costs it was probably dearer to buy in England than locally produced iron.²⁵

Based on evidence from royal building accounts, it is thought that local ore was used for horseshoes, nails, pickaxes and spades, and iron from Normandy, Spain and Sweden for higher quality goods such as weapons.²⁶ However, *The Discourse of the Commonweal* referred to imported iron being used for agricultural implements.²⁷ Evidence from the Southampton records shows Spanish iron being taken regularly into the port.²⁸ Some went to the smiths of Winchester, to men such as John Hibberd, who frequently supplied the College with iron for the buildings and with finished articles, cutlery, keys, horseshoes as well as various tools for the garden. Whether these local smiths also received supplies of English iron from the Sussex Weald or from the Forest of Dean is impossible to tell. The College was conveniently situated close to Southampton, one of the ports through which Spanish iron was entering the country, and while it is difficult to be precise about whether Spanish or English iron was used for the College horseshoes or for tools for the house or garden, what evidence we possess suggests that Spanish iron was used at Winchester College even for mundane tasks. Horseshoes and nails are two iron commodities which feature regularly in the College accounts and their supply is closely examined here.

Nails

Nails, a specialism of the West Midlands, was a product made from iron which had been through a further manufacturing process, and which the

College purchased on a regular basis. It was possible to identify where the College was buying its supply of nails in some years. Unfortunately, there were many occasions when the accountants failed to name either the place of purchase or the name of the supplier, and, for this reason, quantities discussed do not represent exactly the total amount purchased. The supply of nails to the College is best viewed in two parts. In the first period, from 1410 to 1480, nails were either bought locally or from the Forest of Dean, London and Reading; but from 1480 to 1560, the College additionally bought nails from the West Midlands. This specialist centre of production soon assumed the role as the major supplier of nails to the College although never wholly replacing the local retailer. It is unfortunate that the College records do not indicate how the substantial quantities of nails purchased from these sources were routinely consumed.

The College bought various types of nails: threepenny, fourpenny, fivepenny, sixpenny, tenpenny nails, as well as floornails, lathnails, leadnails, shinglenails, spikenails, stonenails and strawnails. Some nails owed their names to the ratio of the number of nails produced to the weight of iron used. For example, fourpenny nails were so called because a long thousand (1200) of fourpenny nails weighed 4 lb. Nails were priced per thousand, with the exception of tenpenny nails which were priced per hundred, thus giving rise to the term 'hundred work', which was used in association with the production of larger nails.²⁹

Limited evidence shows that, during the first half of the fifteenth century, the College bought some nails off the shelf in Winchester from men such as John Jay, smith, and John Colman, smith, in 1409-10 and from John Choude in 1409-10 and 1410-11. In 1410-11, Choude, described as an 'ironmonger', supplied 1700 floornails, 150 spikenails, 500 boardnails.³⁰ In 1421-22, and again in 1434-35, the College bought nails from local retailer, John Colyns. Although the quantity purchased in 1421-22 was small, only 1500 lathnails, they bought a much larger quantity from him in 1434-35; 14,000 lathnails, 1100 boardnails, 4500 shinglenails and 550 other nails, and this was in addition to 14 lb of spikenails supplied by Thomas Clerk the same year.³¹ Another Winchester supplier was Bore, a local smith, who had iron carted to him at various times from the local port. It was from him that 9000 lathnails were bought in 1459-60.³² Similarly, it was 10,000 lathnails, that local retailer John Spycer supplied in 1471-72.³³ However, in addition to the nails bought locally, the Forest of Dean, 78 miles away (125 kilometres), London 62 miles (100 kilometres) and Reading 30 miles (48 kilometres) were other centres which fulfilled the demands of the College. In 1430-31, in addition to 8700 lathnails bought locally in the town, 6500 board-

nails and spikenails, costing 28s 6d, and 9000 lathnails, costing 10s 6d, were bought in Reading.³⁴ In 1447-48, in addition to 6000[?] lathnails purchased locally from Upham, three summa [30,000 lb] of lathnails and 4000 shinglenails came from London, for which carriage costs of two shillings and seven pence were paid.³⁵ In 1449-50, 500 spikenails and 4800 wallnails were purchased from the Forest of Dean.³⁶

In the second half of the period studied, from c. 1480 to 1560, the College depended on two centres of supply, Winchester and Dudley. Local dealers from whom the College obtained quantities of nails in this period included Buclond, Hankyn, the smith, who supplied spikenails in 1489-90, and Hamlett, plumber of Winchester, who, in 1494-95, supplied 3000 lathnails.³⁷ Thomas Hayne, John Poole and John Tubbe the tiler also supplied lathnails in this period.³⁸ Thomas Hayne was citizen and mayor of Winchester 1514-15.³⁹ However, the College did not depend solely on these local retailers, but, as in the earlier period, also purchased nails from further afield, from the West Midlands. The available evidence reveals that the greatest quantity of nails came from Dudley, which was 107 miles (172 kilometres) away from the College.⁴⁰ In her comprehensive study of the metalware trades of the West Midlands, Marie Rowlands identified the area as a centre which supplied metal goods to distant places at that time.⁴¹ Nails were purchased from Dudley in Worcestershire for the first time in 1482-83 when William Fisher was the supplier.⁴² Other Dudley suppliers were Roger and John Starismor. Figure 1 provides examples of the quantities and variety of nails which were purchased from Dudley in the 1490s.

Figure 1: Nails purchased from Dudley suppliers in the 1490s

type	1491-92	1492-93	1494-95	1495-96	1497-98*	1498-99
tenpenny	1000	500	1000	1000	4000	350
sixpenny	4000	2000	3000	2000	6000	
fivepenny	4000	2000	3000	1400	7000	1000
fourpenny	3000	1500	3000	1500		1000
threepenny				6000	6000	
lathnails	2S	1½S†				
leadnails					4000	
stonenails					1S	
strawnails					½ S + 400	
Total cost	£3 0s 2d	£1 15s 7d	£1 17s 4d	£1 10s 1d	£5 2s 2d	£0 13s 0d

Source: WCM 22155-22162, 1491-99, expenses of the buildings.

* In this year William Fisher was the supplier, in all other years, Starismore.

† S signifies summa, or 10,000 lb nails.

Dudley continued to be the most important centre of supply and, at the beginning of the sixteenth century, the College continued to buy nails at source from William Fisher of Dudley.⁴³ Fisher supplied the College in 1500-1, 1501-2 and in 1504-5. In the intervening year, 1503-4, the supplier was William Forest, also of Dudley, and for the next 20 years the College received nails variously from Christopher, John, Thomas and William Forest. Patterns of purchasing strongly suggest that they were all related, but, unfortunately, only William is positively identified with Dudley.⁴⁴

In the 1530s, Raynold Warde of Dudley was the main supplier. The quantity of nails provided by local men was negligible compared to the large quantities supplied by Warde. But it was not just Winchester College which was patronising this specialist centre of supply, since Raynold Ward also supplied nails for Hampton Court Palace and for Nonsuch Palace in Surrey in the early sixteenth century.⁴⁵ Figure 2 shows the significant quantity of nails purchased regularly from Warde in the 1530s, and the total cost to the College.

Figure 2: Nails supplied by Raynold Warde of Dudley in the 1530s

type/nail	1529-30	1530-31	1531-32	1532-33	1534-35	1535-36	1538-39	1539-40
tenpenny	3000		1500		1000	1000	2000	2450
sixpenny	1000	3000	4000		1000	1000	5500	4400
fivepenny	2600	2000	4000			1000	14000	4500
fourpenny			5000			1000	3000	1500
threepenny			5000		2000		5500	5000
lathnail	1S + 600	1S†	1S + 8000	3S	4S	4S + 500	3S + 6000	3S + 4000
Total cost	£2 18 4d	£1 7s 10d	£3 15 10	£1 5s 0d	£2 7s 6d	£2 10s 6d	£6 11s 5d	£4 2s 5d

Source: WCM 22188-22197, 1529-40, buildings.

† S signifies 'summa' 10,000 lb of nails.

Figure 2 also shows that Warde was supplying the College by 1529-30, and a Southampton brokage book for 1527-28 shows that on 3 February 1527-28, a Ralph Warde entered Southampton with five horseloads of nails, and left with two horseloads of oranges. This was possibly the same supplier.⁴⁶ If so, this entry reinforces the deduction that the College was conveniently situated to benefit from a possible West Midlands/Southampton link. It also indicates that Warde preferred to use overland transport in preference to water. In the ten-year period from 1529 to 1540, Warde supplied nails to the College in eight of the ten years, and in 1538-39 deliveries of nails were made in March, May, July and on two other unspecified dates. In May, when the College purchased

8000 fivepenny nails, only 3s per 1000 was paid, whereas 2000 and 4000, purchased at other times in the same year, cost 3s 4d per 1000. It would seem that Warde offered favourable prices for bulk purchases to keep the custom of the College, and the College was concerned to buy on reasonable terms. By 1542-43, the College was buying most of its nails at source from Thomas and John Sheldon, and they continued to meet the needs of the College until the end of the research period. The College sources fail to link these two people with a place of supply. However, the Sheldons were a well-known Staffordshire family and the quantities purchased from Thomas and John Sheldon suggests that they had assumed the role once played by the Dudley suppliers.

It is difficult to compare the price of nails, since prices could fluctuate within a decade and according to where nails were purchased. The prices shown in Figure 3 are Dudley prices for the 1480s, 1490s and 1530s, and it can be seen that prices changed little until the 1550s. For the 1550s the prices are those of the main College supplier in that period, who may, or may not, have come from Dudley.⁴⁷

Figure 3: The cost of nails

type	1480s	1490s	1530s	1550s
tenpenny	7s 4d/M*	6s 8d/M	6s 8d/M	8s to 8s 8d/M
sixpenny	4s 0d/M	4s 2d/M	4s 2d/M	4s 5d/M
fivepenny	3s 4d/M	3s 4d/M	3s 4d/M	4s/M
fourpenny	2s 6d/M	2s 6d/M	2s 6d/M	
threepenny		1s 10d/M	2s/M	2s 6d/M
lathnails	10 ³ / ₄ d/M	10 ¹ / ₂ d/M	10d/M	10s/summa†
leadnails	2s 10d/M	2s 4d/M		
stonenails		7s/load		
tacknails				2s/M

Source: WCM 22149-22153, 1481-90, buildings; WCM 22154-22162, 1490-1500, buildings; WCM 22190-22197, 1531-40 buildings; 22208-22214, 1550-60, buildings.

* M is a thousand, for nails probably a long thousand, 1200.

† A summa was equal to 10,000 lb of nails.

The impression gained is that in the early years the College obtained its supplies of nails from a number of different places, including Winchester, and centres, such as the Forest of Dean, which had early associations with the iron industry. Later, however, the College obtained larger quantities on a regular basis from Dudley, a fast-developing specialist centre. The initiative for marketing nails in central southern England was, surely, on the part of the Midland traders rather than from

the College. The College continued to buy smaller quantities from local retailers. Winchester dealers were used, on occasion, to augment supplies but were more expensive than the Dudley suppliers. For instance, in 1492-93, when the College purchased half a summa [5000 lb] of lathnails locally from Buclond, the cost was 5s, or 1s per thousand,⁴⁸ compared with the Dudley price of 9s per summa (10,000 lb nails) in the same year. In 1495-96, Starismore of Dudley charged 5s 4d for 6000 lathnails.⁴⁹ The Dudley price of 10½d per thousand was again cheap, but not as cheap as the 9d per 1000 charged by Fisher of Dudley some six years later, in 1501-2.⁵⁰ When it is also considered that no carriage charges were added and that the cost of carriage must surely have been included in the cost of the nails, then the Dudley supplies were very much cheaper than those bought locally, which also had to be conveyed.

The evidence thus indicates that by the last two decades of the fifteenth century the Dudley suppliers were dominating the market to the detriment of other places such as the Forest of Dean, Reading and even London, which had supplied the College earlier. However, local retailers were never totally overawed by Dudley. The West Midland suppliers were clearly capable of providing a greater variety of nails in larger quantities. Obviously the stock and variety of nails held by local dealers was more limited, and although the College recognised that nails were best obtained at source, there were still clearly times when the convenience of purchasing close-by outweighed the additional cost paid. The nailmen of Dudley were certainly the main suppliers of nails to Winchester College in the final two decades of the fifteenth century and in the early decades of the sixteenth century, and possibly beyond that as well.

Horseshoes

The supply of horseshoes and the regular work generated by the College was a valuable and important part of the livelihood of the local smith. The Southampton records show that of the known College suppliers, William and John Bore of the Soke received iron from Southampton throughout the 1440s. In the year 1443-44, they received 10C [1000 lb] in October; 2000 lb in January 1444; 2000 lb in April 1444; and a further 2100 lb in July.⁵¹ Robert Smith of Westgate received 1000 lb of iron from Southampton on 11 December 1445; in 1447-48 he received 1000 lb on 1 April; and a further 2000 lb on 25 June.⁵² In 1445-46, Thomas Clerk of the Soke, received 2000 lb iron from Southampton on 9 February.⁵³ In May 1492, Hankyn of the Soke received 1000 lb of iron from Southampton, and Hibberd, the smith, the same quantity on 27

November 1554.⁵⁴

In common with most contemporary households of similar size, the College had its own stable. However, the accounts suggest that the number of horses kept by the College was modest. An inventory of 1421-22 states that there were four horses in the College stable, another, one hundred years later, in 1521-22, states that there were five horses, while an inventory of 1526 states that there were eight horses in the College stable at that time.⁵⁵ (This number does not, of course, include those on the College estates). The small number of horses in the College stable was comparable with the four to eight horses generally fed by the sedentary dowager Alice de Bryene in 1412-13, and far less than the number kept by the Duke of Buckingham in 1508.⁵⁶ The Duke had 49 horses in his stable at Thornbury a figure which included cart or coach horses, mail horses, palfreys and sumpters; additionally, there were a further 62 belonging to other servants of the Duke.⁵⁷ Provisioning horses was expensive in this period and, therefore, it was not unusual to hire them when needed. Large numbers of horses were kept for hire in London, and, doubtless, in other towns as well.⁵⁸ Small monastic and clerical households often preferred to hire horses as required, rather than keep their own; certainly Winchester College hired horses for use on the twice-yearly progress of the estates, as well as at other times.⁵⁹ Reference to horses being pastured at Hursley, Marwell, Waltham and in the meadow of St. Elizabeth's College, suggest that numbers at the end of the research period had increased slightly.⁶⁰

For the College horses, numerous horseshoes were required and purchased annually. Local smiths assumed the role of shoeing the college horses and some served the College for many years; in the early fifteenth century John Janyne was the College smith for 20 years; in the 1490s, the Sparveld family supplied horseshoes to the College; in the 1530s, Robert Clarke, and, in the 1550s, John Hibberd.

Figure 4 shows the number of horseshoes bought, the number of removals paid for and, where possible, the name of the smith, in specific years.⁶¹ The table covers the period in which all horseshoes cost 2d each. It also shows the calculated total number of horseshoes purchased each year. The table clearly shows that, with the exception of a period in the middle of the fifteenth century, the average number of horseshoes purchased gradually increased throughout the research period. It rose from an average of 134 horseshoes each year, at the beginning of the fifteenth century, to 256 in the final years of the research period. The middle years of the fifteenth century are the exception, with a reduction in numbers over the earlier period. The overall expenditure of the stable in the mid-fifteenth century was also generally less than in the two

Figure 4: Number of horseshoes purchased

year	smith	front 2d	back 1½d	total	removals ½d	total cost account
1409-10	Baldwin	73	96	169	80	£1 7s 6d
1410-11	Baldwin	[68] †	[73]	[141]	[80]	£1 3s 9½d
1411-12	Baldwin	52	63	115	85	£1 0s 1d
1412-13	Baldwin	67	77	144	112	£1 7s 1½d
1413-14	Baldwin	53	50	103	117	£0 19s 11½d
average				134		
1447-48	John Janyn	29	36	65	64	£0 12s 0d
1448-49		38	32	70	62	£0 12s 11d
1449-50		47	43	90	78	£0 16s 5½d
1450-51		43	38	81	43	£0 13s 8½d
1451-52	William Stokebrigg	52	51	103	53	£0 17s 3d
average				82		
1491-92	Sparveld	79	78	157	59	£1 6s 0½d
1492-93	Sparveld	88	83	71	-	£1 5s 0½d
1493-94	Sparveld	75	71	146	74	£1 4s 5½d
1494-95*	Sparveld	57	94*	151	-	£1 5s 2d
1495-96	Sparveld	93	88	181	44	£1 8s 2d
average				161		
1534-35	Robert Clarke	96	78	174	66	£1 9s 0d
1535-36	Robert Clarke	128	98	226	84	£1 17s 7d
1536-37	Robert Clarke	127	106	233	35	£1 16s 6d
1538-39	Robert Clarke	129	116	245	58	£1 18s 5d
1539-40	Robert Clarke	129	119	248	52	£1 19s 4½d
average				225		
1550-51*	John Hibberd	340		340	350	£3 13s 1½d
1552-53*		251		251	315	£2 14s 9d
1555-56*	John Hibberd	272		272	254	£2 17s 11d
1556-57*		214		214	238	£2 5s 4½d
1559-60*	John Hibberd	167		167	154	£1 14s 3d
average				256		

Source: WCM 22091-22095, 1409-14; WCM 22122-22126, 1447-52; WCM 22159-22163 1495-1500; WCM 22193-22197, 1534-40; WCM 22208-22214, 1550-1560.

* All horseshoes cost 2d by this period, except in term 2, 1555-56, when they cost 2½d.

† Figures in brackets have been estimated from total cost.

periods on either side of it. The reduced number of horseshoes purchased, plus a reduction in overall stable costs, suggests that substan-

Figure 5: Number of horseshoes purchased per horse per year

year	total horseshoes per horse per year	No of horseshoes per horse per year based on 4 horses	No of horseshoes per horse per year based on 5 horses	No of horseshoes per horse per year based on 6 horses	No of horseshoes per horse per year based on 7 horses	No of horseshoes per horse per year based on 8 horses
1409-10	169	42	34	28	24	21
1410-11	[141]	35	28	24	20	18
1411-12	115	29	23	19	16	14
1412-13	144	36	29	24	21	18
1413-14	103	26	21	17	15	13
average	134	34	27	22	19	17
1447-48	65	16	13	11	9	8
1448-49	70	18	14	12	10	9
1449-50	90	23	18	15	13	11
1450-51	81	20	16	14	12	10
1451-52	103	26	21	17	15	13
average	82	21	16	14	12	10
1491-92	157	39	31	26	22	20
1492-93	171	43	34	29	24	21
1493-94	146	37	29	24	21	18
1494-95	151	38	30	25	22	19
1495-96	181	45	36	30	26	23
average	161	40	32	27	23	20
1534-35	174	44	35	29	25	22
1535-36	226	57	45	38	32	28
1536-37	233	58	47	39	33	29
1538-39	245	61	49	41	35	31
1539-40	248	62	50	41	35	31
average	225	56	45	38	32	28
1550-51	340	85	68	57	49	43
1552-53	251	63	50	42	36	31
1555-56	272	68	54	45	39	34
1556-57	214	54	43	36	31	27
1559-60	167	42	33	28	24	21
average	256	64	51	43	37	32

[] Figures in brackets have been estimated from total cost.

tially fewer horses were being maintained in this period.⁶² Despite this, the presence of the College was certainly to the benefit of the

Winchester smiths. Figure 4 shows the amount in financial terms which the smiths charged for supplying horseshoes. It shows the total cost, as it appears in the account, presumably the amount which the College paid.⁶³

Finally, table 5 shows the number of horseshoes which were purchased for the College horses, per horse, per year. Columns one and two, show the year and the total number of horseshoes per year which the bursars accounted for under the stable expenses (this did not include horseshoes paid for on journeys away from the College). The next five columns of table 5 estimates the number of horseshoes purchased per year depending on how many horses were in the College stable that year.

III Wax⁶⁴

Wax was a luxury product which was chiefly required to produce candles for religious services. Candles, funeral candles, torches and tapers were used in large numbers in the middle ages. Special services celebrating feast days and the great religious festivals, such as Easter, with its great Paschal candles, and the Purification or Candlemas, depended on even greater quantities of wax. In 1406-7 the Bishop of Salisbury, Richard Mitford, bought 238lbs of wax which was then made into seven grades of candles ranging from large torches to small tapers.⁶⁵ Among his purchases from John Payntour of Devizes was a Paschal candle.⁶⁶ Wax was used overwhelmingly, therefore, for ecclesiastical consumption. Household lighting in this period usually depended on tallow candles, which were generally made locally, often at home, from animal fat. The import of large quantities of wax from abroad demonstrates that English wax was not available on competitive terms. As a result, the bulk market in wax was dominated by foreign suppliers. In the fifteenth and early sixteenth centuries, Hanseatic merchants were importing large quantities of wax, which originated from Russia, Livonia and Prussia.⁶⁷ Between 1476 and 1479, the yearly average was 1,107 hundredweight [55 tons 7 cwt].⁶⁸ This figure rose steadily, reaching as much as 8,455 hundredweight [422 tons 15 cwt] in 1528-29, by which time most of the wax was being imported through London.⁶⁹

Winchester College bought large quantities of wax in most years. As an intercessory institution, and with a chantry of priests committed to a cycle of services and masses, the wax was used in the College's fine perpendicular-style chapel. Usually it originated from Poland, but in occasional years it came from Lisbon, and sometimes from the Mediterranean area.⁷⁰ English wax was bought less frequently, but on one occasion, in 1474-75, it was purchased at Whitchurch.⁷¹ The College accounts reveal the routes and changes whereby an international import,

wax, arrived at a major southern consumer, and highlight the influence of external factors on the source of supply and the College's scope for decisions. While it is impossible to establish a comprehensive picture of where the College purchased its supplies of wax in the first half of the fifteenth century, the accounts do show that between 1447 and 1557 the supply of wax to the College changed.⁷² It will be seen that while from 1447 and c. 1480 the College purchased most wax locally in Winchester, between 1480 and 1540 it came predominantly from London, except for a few years in the 1490s when it was supplied from Salisbury. After 1546 the quantity of wax consumed by Winchester College declined and although some wax was purchased in London, it was bought more often in Winchester.

From 1447 to 1557, over 200lb was bought each year from four main centres, Winchester, London, Salisbury and Southampton. Charts show the quantities purchased from these places during this period.⁷³ Between 1447 and 1480, the College bought most of its wax in variable amounts in Winchester, with the city being the sole place of supply in a total of 14 years.⁷⁴ These years closely correspond with the period when John Kent was the College supplier and chandler. The College started buying from Kent in 1441-42, and continued to do so until he died in 1478. The charts show that in the early years he was not the sole supplier. For instance, in 1449-50, the College bought 56lb wax in London and 143 1/2lb from Kent in Winchester. In 1450-51, it bought 138lb from John Hall, mayor of Salisbury, and 43lb wax from John Kent. Nevertheless, from 1453-54 until his death in 1478, Kent was the main supplier of wax.⁷⁵ In the years 1464-65 to 1472-73, he was the sole supplier. The year after Kent died, the College paid Emmota Kent, his widow, for 137 lb of Polish wax, for nine dozen tallow candles and for making new and old wax into candles, torches and tapers. After that, the business link between the Kent family and the College came to an end. The following year, the College purchased wax from Thomas Chilton, and from London.⁷⁶ In 1484-85 and 1487-88, Ralfe Tilney, a London supplier, grocer and alderman supplied the College with wax.⁷⁷

The next regular supplier was Bartholomew of Salisbury, who supplied wax in three consecutive years from 1492-93 to 1494-95, and, in the following year, the College again purchased wax in London.⁷⁸ When Bartholomew supplied the College with wax in 1492-93 it cost of 72s 4d per C, the following year his price was 70s per C, and in 1494-95 it had risen to 74s per C. Price was probably the reason why the College bursars looked elsewhere in 1495-96. If so, in turning from Salisbury to London for supplies of wax the Winchester College bursars were adopting the same behaviour as the bursars of Durham Priory who shopped around

and purchased wine from Hull rather than Newcastle to obtain more favourable prices.⁷⁹ Indeed, when the College bursars bought 2C of wax in London the following year, 1C cost 59s and the other 58s, and was therefore, considerably cheaper. London was able to undercut this price at 6d per lb on at least four occasions; the Salisbury price appears to have remained steady at 7½d per lb. The cost of transporting wax from London to Winchester varied more than the price of the commodity purchased there. In three consecutive years, 2C of wax was bought; in 1498-99, it cost 2s 4d to transport; in 1499-1500, 2s 6d; and, in 1500-1, 2s 8d. Yet despite these transport costs, it appears to have become more economic to purchase the supplies of wax from the capital.⁸⁰

After 1500, it becomes less easy to identify the place of purchase, yet small amounts continued to be purchased in Winchester until the very end of the period. Undoubtedly, London was now the main supplier and was probably the source of wax in many more years between 1503-4 and 1524-25, if quantity and carriage costs are taken into account. After c.1546-47 the College consumption of wax started to decline. It is possible that after this wax was entered in the sacrist's book of expenses and failed, therefore, to enter the surviving records, except in the few exceptional years shown. However, what is more likely, is that the decline in wax consumption reflected the religious changes, as lights before altars, candles and torches at funerals, masses for the dead, purgatory and chantries were abandoned (liturgical change seems to have been responsible for various building activities which took place in the chapel between 1548-61).⁸¹ Unfortunately, comparative information for what happened elsewhere is not currently available. Between 1546 and 1557, while the College continued to purchase some wax from London, it gave greater custom to local retailers than it had done between 1480 and 1538.

Figures 6, 7 and 8 show these trends; they also clearly identify that, between 1447 and 1481, Winchester was the main place of supply. Thereafter, apart from a few years in the 1490s when the College turned to Salisbury, the greatest quantity came from London. In many of these later years, the place of purchase was not identified, but carriage costs and the purchase of canvas suggest that this wax was also coming from the capital. If this deduction is made, then the role of London in supplying wax was even more important. At first sight it appears that the College purchased very little wax from the local port of Southampton; however, it is worth considering where retailers such as John Kent, or Hall of Salisbury, obtained their supplies. The Southampton brokerage books show that in February 1447-48, Kent received four hundredweight of wax from Southampton.⁸² They also show that both Hall, who owned

Figure 6: Wax – place of purchase 1447-84

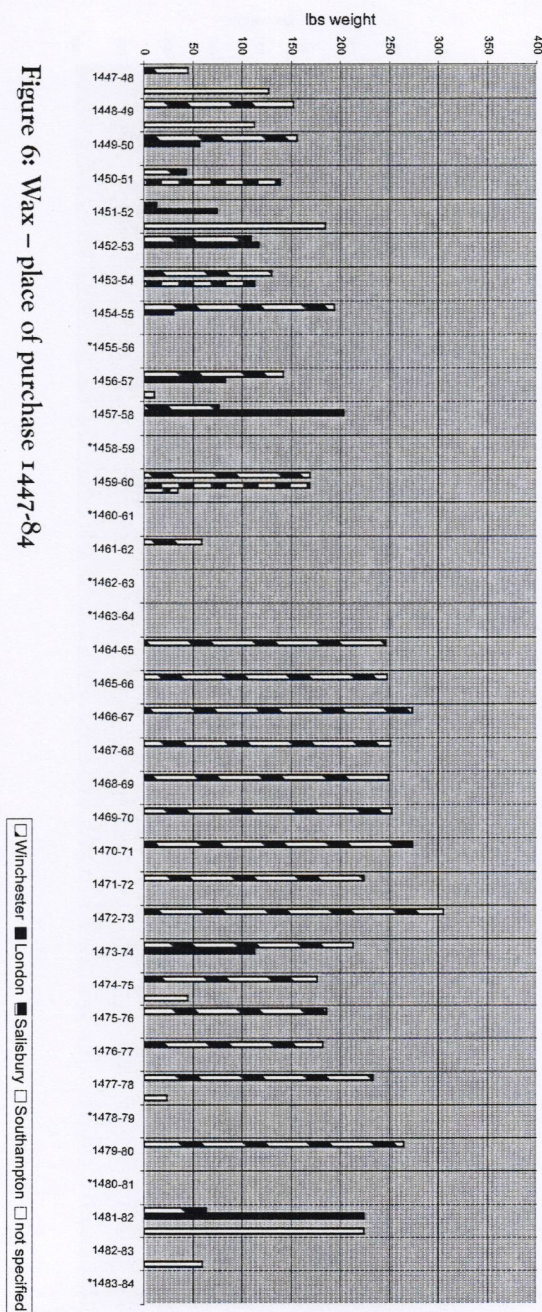


Figure 7: Wax – place of purchase 1484-1521

☐ Winchester
 ☒ London
 ☒ Salisbury
 ☐ Southampton
 ☐ not specified

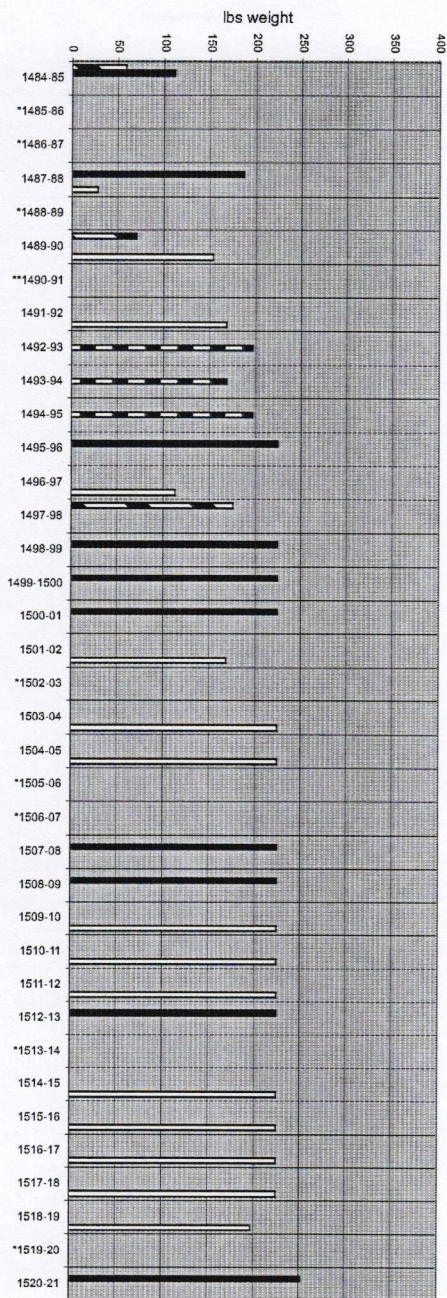


Figure 8: Wax – place of purchase 1521-60

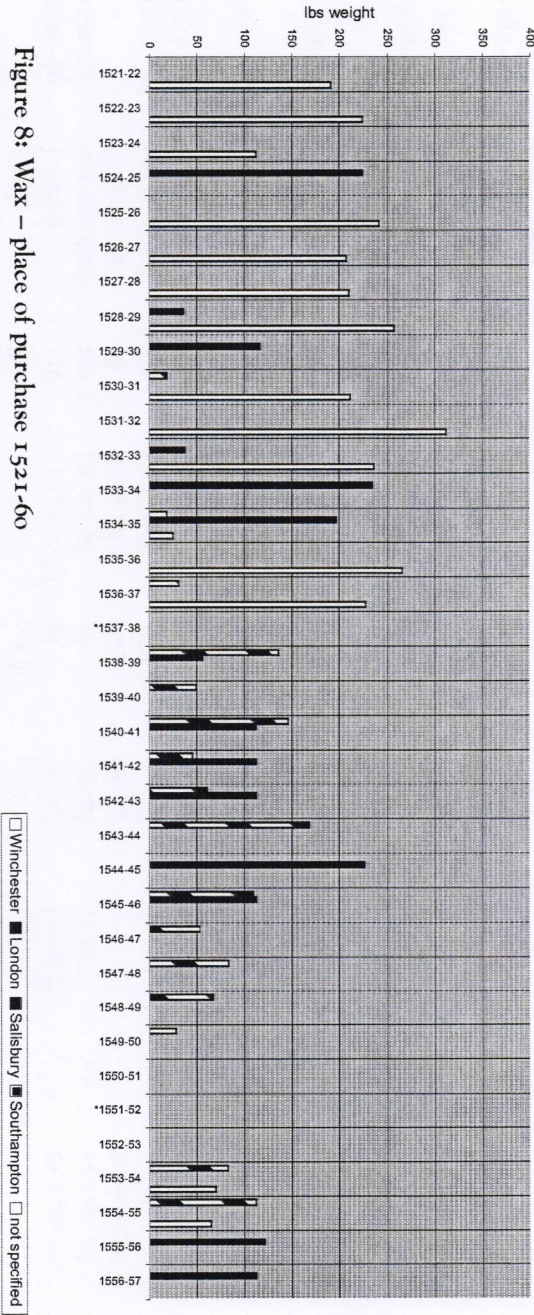


Figure 9: Supply of wax of 'Poleyn'

Year	place of supply	qty lb	cost wax	cost per lb	cost per C	cost carriage [1s od]*	cost canvas	total cost
1529-30	London	116	£1 19s 10½d	4d	38s 6d	-	-	£1 19s 10½d
1530-31	not specified	211.5	£4 11s 3d	5d	48s 4d	1s 3d	4d	£4 12s 10d
	Winchester	18	£0 9s 4½d	6¼d	58s 4d	-	-	£0 9s 4½d
1531-32	not specified	311	£5 10s 3d	4¼d	39s 8d	3s 10d	10d	£5 14s 11d
1532-33	from store	236	£5 4s 6d	5¼d	49s 7d	2s 8d	-	£5 7s 2d
	London	37	£0 16s 10½d	5½d	51s 1d	2d	3d	£0 17s 3½d
1533-34	London	122	£2 6s 5¼d	4½d	42s 8d	1s 9d	9d	£2 8s 11¼d
	London	112	£2 11s 8d	5½d	51s 8d	1s 2d	4d	£2 13s 2d
1534-35	London	196	£4 13s 11d	5¾d	54s 3d	1s 9d	-	-
	from store	25	£0 13s od	6¼d	58s 3d	-	-	£5 8s 8d
	Winchester	18	£0 10s od	6½d	62s 3d	-	-	£0 10s od
1535-36	not specified	266	£7 1s 6½d	6½d	59s 7d	3s 2d	9d	£7 5s 5½d
1536-37	Winchester	31.5	£0 15s 9d	6d	56s od	-	-	£0 15s 9d
	not specified	227	£4 12s od	5d	46s od	2s 4d	7d	£4 14s 11d
1538-39	London - from store	56	£1 2s od	4¾d	44s od	6d	5d	£1 2s 11d
	Winchester	135.5	£2 15s 10d	5d	46s 2d	-	-	£2 15s 10d

Source: WCM 22188-22196, chapel.

* The one shilling carriage cost shown in 1529-30, did not appear in the account for that year, nor was the place of purchase mentioned. Instead, this payment was included in the 1530-31 account, which also identified that the wax had been bought in London.

ships based in Poole, and a certain Richard Bartilimew of Salisbury, received goods from the port of Southampton.⁸³ When the supplies which left Southampton for Kent in Winchester, and possibly for Hall and Bartholomew in Salisbury, are also taken into account, the role played by Southampton changes to one of greater significance in the mid-fifteenth century. It seems, therefore, that first Southampton and, later, London were the two main places of supply. It is also interesting and, perhaps, surprising that Winchester College obtained Polish wax from Salisbury and Winchester rather than directly from Southampton, and that the imported wax had become part of the internal trade before it reached the consumer.

It seems reasonable to deduce that in the same way that the College bursars accounted for cloth 'prudently purchased for liveries for the following year', so, too, extra wax was bought on occasion to take advantage of favourable terms. Some accounts mention wax taken from store, or purchased for store for use in the following year. Figure 9 shows that this might well have been the case in 1538-39, when the cost was 4¾d a lb or 44s per hundredweight. But it seems unlikely to have been the reason in 1534-35, when the cost was 6¼d per lb or 58s 3d per hundredweight.

Figure 9 shows the quantity of wax being purchased in the 1530s, amounting to approximately 235 lb per year, on average, and it identifies London as the place of purchase in five of the nine years. The cost of carriage and the purchase of canvas to cover the wax in transit, strongly suggest that the wax was purchased from the capital in other years as well. Even with the cost of canvas and carriage added to the London prices, the cost per pound was, on average, at least a halfpenny less than local prices. When the quantities purchased by the College are taken into consideration, then it was clearly beneficial to purchase wax from the capital, although there were still occasions when it was convenient to buy wax from a Winchester supplier.

When considering who supplied the College with wax in this period, it is interesting to see that in the same way that the suppliers of King's Hall, Cambridge, were important men in their area, so too, were some of the College suppliers.⁸⁴ However, whether the College gave patronage to people who were of local significance, or whether local traders gained standing in the town through supplying the College, is less easy to ascertain. John Kent, the Chandler who supplied the College for almost 37 years in the mid-fifteenth century, was bailiff of the city when he started supplying the College in 1441. In 1454-55, he became mayor of Winchester, a position which he held again in several years after that.⁸⁵ Ralf Tilney, who supplied the College with wax in 1487-88, might well

have been the person who is identified by Sylvia Thrupp as a grocer and alderman of London.⁸⁶ Of the Salisbury wax suppliers, the first, John Hall, was a renowned and wealthy Salisbury merchant, who was mayor of Salisbury on four occasions, deputy on one.⁸⁷ He became influential in city affairs and is remembered as the man who tried to help the city to break free from the domination which the Bishopric exerted over the city.⁸⁸ Another important Salisbury dealer who supplied wax for the College chapel in the 1490s was Richard Bartholomew. He and his sons Richard and John were wealthy Salisbury merchants who were prominent in trade at the turn of the fifteenth century.⁸⁹

IV Conclusions

External factors such as the growing dominance of London, changes in shipping routes and the emergence of specialist centres of production, influenced where purchases were made. This was true for both nails and wax. For many years in the fifteenth century, the College, as consumer, had forged links with Winchester through local retailers such as Kent, the chandler, from whom it purchased wax which had been imported through the port of Southampton. However, from the last two decades of the fifteenth century onwards, a period which saw a great increase in the volume of wax being imported by Hanseatic merchants through London, the College purchased wax increasingly from the capital since it was cheaper, despite transport costs, to do so. Even then, Winchester chandlers continued to supply small quantities off the shelf, as and when required.

For a major consumer, it was found to be more expedient price-wise to purchase many of the essential requirements in bulk, to benefit from favourable prices. Thus it was cheaper for the College at the end of the period to purchase wax from London than from the local town. It was even more advantageous to purchase wax, not only for immediate use but also for store, when prices were particularly competitive. Similarly it was beneficial to buy nails from the centre of production, the Forest of Dean and later from Dudley in the West Midlands, than it was from small-scale retailers, in Winchester.

Specialist centres of supply, such as Dudley, were clearly emerging in this period. Whereas, at the beginning of the fifteenth century, nails were purchased from a range of suppliers in various places, by the end of the period the College was receiving regular supplies of nails from Dudley, and the West Midlands was dominating the market in nails, to the detriment of all other places.

The cost of transporting bulky goods such as a load of wax, from

London to Winchester, a distance of approximately 62 miles (100 kilometres), did not deter the College from distance purchasing. To benefit from the financial advantages of bulk-purchasing, a consumer like Winchester College was prepared to purchase the commodities it wanted from distant sources of supply. It was more economic to purchase nails from Dudley, in the West Midlands, more than 100 miles (161 kilometres) away from Winchester, and wax from London, than to do so locally.

However, there were times when even large-scale consumers, who were normally keen to benefit from the competitive prices offered by specialist centres, chose to pay higher prices for the convenience of buying smaller quantities locally. Even when London and Dudley had become the preferred places to purchase wax and nails respectively, there were still many occasions when it was useful for the College to buy small quantities in Winchester, despite the higher prices charged. That a large-scale consumer could do so, indicates that the local town was able to supply the necessary goods, in this case nails or wax, that the local retailer, albeit a small scale supplier, had sufficient stock to meet the needs of a large-scale consumer, and that he was in a position to invest substantial capital in purchasing that stock.

An advantage of examining the purchasing practices of a household over a period of approximately one hundred and fifty years is that it highlights changing trends and patterns of trade. A large-scale consumer, such as Winchester College, did not always depend on the same source of supply, the pattern of trade changed and there was the capacity for choice. The bursars of Winchester College were active participants in the commercial world, in the same way that Professor Dyer found that the Church and individual clergy were 'integrated into medieval commercial life'.⁹⁰ The bursars were discriminating in selecting where they made their purchases and were prepared to travel to get the best price; but there were still occasions when the attraction of obtaining bulk purchases of wax from the importer in London or nails from the specialist centre in the West Midlands was balanced against the convenience of buying from the local retailer.

* This work is drawn from my doctoral research 'The Pattern of Consumption of Winchester College c.1390-1560'. I would like to give very special thanks and acknowledgement to my two supervisors Professor M A Hicks and Dr J Hare for all the advice and guidance which they gave so generously over a period of years. My thanks also go to Ms. S. Foster archivist at the Hampshire Record Office and deputy archivist at Winchester College and to the College archivist for allowing me to work with such a remarkable medieval archive. All WCM references

(Winchester College Muniments) relate to the bursars' account rolls unless otherwise stated.

- 1 Wax was purchased in Southampton in 1459-60, however, the quantity was small, just 34 lb.
- 2 T.S. Willan, *The Inland Trade: Studies in English Internal Trade in the Sixteenth and Seventeenth Centuries* (Manchester, 1976).
- 3 R.B. Dobson, *Durham Priory 1400-1450* (Cambridge, 1973).
- 4 See for instance, R. Britnell, 'Town Life', in R. Horrox, and W.M. Ormrod (eds), *A Social History of England, 1200-1500* (Cambridge, 2006), pp. 134-78; B. Campbell, J.A. Galloway, D. Keene, M. Murphy, *A Medieval Capital and its Grain Supply: Agrarian Production and Distribution in the London Region, c.1300* Institute of British Geographers: Research Papers, 30 (Cheltenham, 1993); C. Dyer, 'Trade, Towns and the Church: Ecclesiastical Consumers and the Urban Economy of the West Midlands, 1290-1540', in T.R. Slater and G. Rosser (eds), *The Church in the Medieval Town* (Aldershot, 1998) pp. 55-75; J.A. Galloway, 'Metropolitan Market Networks: London's Economic Hinterland in the Later Middle Ages', *Transactions of the London and Middlesex Archaeological Society* 50 (1999), 91-97; J.N. Hare, 'Growth and Recession in the Fifteenth-Century Economy: The Wiltshire Textile Industry and the Countryside', *Economic History Review*, 52 (1999) 1-26; D. Keene, 'The South-east of England' in D. Palliser (ed.), *The Cambridge Urban History of Britain, 600-1540*, 1, (Cambridge, 2000), pp. 545-82; M. Kowaleski, 'Port Towns: England and Wales 1300-1540' in Palliser, *Cambridge Urban History*, pp. 467-94; J.S. Lee, *Cambridge and its Economic Region, 1450-1560* (Hatfield, 2005); M. Murphy, 'The Fuel Supply of Medieval London, 1300-1400', *Franco-British Studies* 20 (1995), 85-96; M. Threlfall-Holmes, *Monks and Market: Durham Cathedral Priory 1460-1520* (Oxford, 2005).
- 5 E.M. Carus-Wilson and O. Coleman, *England's Export Trade 1275-1547* (Oxford, 1963); E.B. Fryde, *Studies in Medieval Trade and Finance* (London, 1983); E. Power and M.M. Postan, *Studies in English Trade in the Fifteenth Century* (London, 1933).
- 6 C.M. Fraser (ed.), *The Accounts of the Chamberlains of Newcastle upon Tyne 1508-1511* (Society of Antiquaries of Newcastle upon Tyne, 1987).
- 7 See J. Hare, 'Regional Prosperity in Fifteenth-Century England: Some Evidence from Wessex', in M. Hicks (ed.), *Revolution and Consumption in Late Medieval England* (Woodbridge, 2001), p. 114; *The Victoria History of Wiltshire*, edited by R.B. Pugh, E. Critall, D.A. Crowley et al (17 vols, London, 1953-), IV, p. 124.
- 8 The author is currently the researcher for the Overland Trade Project at the University of Winchester which is entering data from these brokerage books on to a fully searchable database.
- 9 C. Dyer, *Standards of Living in the Later Middle Ages: Social Change in England c. 1200-1520* (Cambridge, 1989); C. Dyer, 'The Consumer and the Market in the Later Middle Ages', in *Economic History Review*, 2nd ser., 42 (1989) 305-27; C. Dyer, 'Trade, Towns and the Church: Ecclesiastical Consumers and the Urban Economy of the West Midlands, 1290-1540', in T.R. Slater and G. Rosser (eds), *The Church in the Medieval Town* (Aldershot, 1998) pp. 55-75; C. Dyer, *Everyday Life in Medieval England* (London, 1994); C. Dyer, *The Church in the Medieval Town* (Aldershot, 1998) pp. 55-75.

- 10 Threlfall-Holmes, *Monks and Market*.
- 11 Dobson, *Durham Priory*.
- 12 A B Cobban, *The King's Hall within the University of Cambridge in the Later Middle Ages* (Cambridge, 1969); Lee, *Cambridge and its Economic Region*.
- 13 W A Harwood, 'The Pattern of Consumption of Winchester College c. 1390-1560' Ph.D. thesis, University of Southampton, 2003.
- 14 WCM 22077-22081 relating to the years 1394-1398.
- 15 Rolls have not survived only for the following accounting years: 1401-2, 1402-3, 1404-5, 1408-9, 1419-1420, 1420-21, 1422-23, 1425-26, 1427-28, 1435-36, 1445-46, 1455-56, 1458-59, 1460-61, 1462-63, 1463-64, 1478-79, 1480-81, 1483-84, 1485-86, 1486-87, 1488-89, 1502-3, 1505-6, 1506-7, 1513-14, 1519-20, 1537-38, 1551-52 and 1558-59.
- 16 C. Woolgar, *The Great Household in Late Medieval England* (London, 1999), p. 12, in which figures have been based on information in diet accounts and the total size is the average number of people present in the household, including grooms, poor and guests.
- 17 This included those in the Abbot's household, the Prior's household and the convent's household, but excludes those not on the official pay roll. See B. Harvey, *Living and Dying in England 100 - 1540: The Monastic Experience* (Oxford, 1993), p. 164.
- 18 *A History of Hampshire and the Isle of Wight*, edited by H.A. Doubleday, G.H. Gotley, W.J. Hardy (5 vols, Westminster, 1900-14), II, pp. 124-25.
- 19 *Valor Ecclesiasticus temp. Henrici VIII, auctoritate Regia Institutus*, edited by J. Caley and J. Hunter (6 vols, Record Commission, 1810-34), II, p. 4.
- 20 J. Geddes, 'Iron', in J. Blair and N. Ramsay (eds), *English Medieval Industries Craftsmen, Techniques, Products* (London, 1991), p. 167.
- 21 By the end of the fifteenth century the blast furnace, which was capable of a greater daily output of cast iron, started to supersede the bloomeries, see Geddes, 'Iron', p. 174.
- 22 There was a water-powered forge at Chingley, Kent in the early fourteenth century, see Geddes, 'Iron', p. 172.
- 23 *Ibid.*, p. 168.
- 24 W.R. Childs, 'England's Iron Trade in the Fifteenth Century', *Economic History Review*, 2nd series 34 (1981), 27.
- 25 *Ibid.*, p. 39.
- 26 Geddes, 'Iron', p. 168.
- 27 Childs, 'England's Iron Trade', p. 45.
- 28 C.P.S. Platt, *Medieval Southampton. The Port and Trading Community, AD 1000-1600*, (London, 1973), p. 153.
- 29 M.B. Rowlands, *Masters and Men in the West Midland Metalware Trades before the Industrial Revolution* (Manchester, 1975), p. 26.
- 30 WCM 22092, 1410-11, buildings. Derek Keene describes Choude as a merchant and vintner, who held city office and who owned and sold iron, and bought nails. D. Keene, *Survey of Medieval Winchester*, Winchester Studies 2 (2 vols, Oxford, 1985), II, p. 1192.
- 31 WCM 22101, 1421-22, buildings, 22111, 1434-35, buildings.
- 32 WCM 22132, 1459-60, buildings.
- 33 WCM 22141, 1471-72, buildings.
- 34 WCM 22107, 1430-31, buildings.
- 35 WCM 22122, 1447-48, buildings.

- 36 WCM 22124, 1449-50, buildings.
- 37 J.H. Harvey, 'The Buildings of Winchester College', in R. Custance (ed.), *Winchester College Sixth Centenary Essays* (Oxford, 1982), p. 122.
- 38 Keene, *Survey of Medieval Winchester*, II, p. 1370.
- 39 Ibid., II, p. 1257.
- 40 For instance, Roger Starismor supplied the College in 1484-85 and John Starismor in at least six years (1487-88, 1491-92, 1494-95, 1495-96, 1498-99).
- 41 Rowlands, *Masters and Men*, p. 1.
- 42 WCM 22150, 1482-83, buildings.
- 43 WCM 22164, 1500-01 and WCM 22165, 1501-02, buildings.
- 44 WCM 22169, 1508-09, buildings.
- 45 Rowlands, *Masters and Men*, p. 1.
- 46 Southampton Archives Service, Southampton (hereafter SAS) SC5/5/33 Southampton brokage book, 1527-28.
- 47 Regrettably, there are no equivalents in the later periods for comparison with the spikenails and wallnails purchased from the Forest of Dean in 1449-50.
- 48 WCM 22156, 1492-93, buildings.
- 49 WCM 22159, 1495-96, buildings.
- 50 WCM 22165, 1501-02, buildings.
- 51 C generally equals one hundred pounds (lb) of iron. O. Coleman (ed.), *Brokage Book of Southampton*, 1443-44 (2 vols, Southampton Records Series, 4, 1960), pp. 2, 87, 196, 248. William Bore also received 30C iron from Southampton in 1445-46 and 20C iron in March, 1449.
- 52 SAS SC5/5/7 Southampton brokage book, 1445-46, SC5/5/8 Southampton brokage book, 1447-48.
- 53 SAS SC5/5/7 Southampton brokage book, 1445-46.
- 54 SAS SC5/5/28 Southampton brokage book, 1491-92, SC5/5/49 Southampton brokage book, 1554-55.
- 55 WCM 21865, inventory, 1421-22, WCM 21868, inventory, 1521-22, WCM 21871, inventory of chapel. The inclusion of horses in the chapel inventory was unexpected, but helpful.
- 56 Dyer, *Standards of Living*, p. 71.
- 57 Woolgar, *Great Household*, p. 190.
- 58 J. Clark, 'Introduction: Horses and Horsemen in Medieval London', in J. Clark (ed.), *The Medieval Horse and its Equipment c. 1150 - c. 1450* (London, 1995), p. 32.
- 59 Dyer, *Standards of Living*, p. 71. See also for example WCM 22123, 1448-49, necessary expenses.
- 60 See WCM 22196, 1538-39, stable. In 1538-39, six horses were at Marwell from 10 June to 16 August, the cost was 4d a week for 11 weeks, two others were there for six weeks and for them pasture cost 3d a week, total cost 25s. Although two horses may have been kept at College for instant use, that six others were kept some miles from Winchester implies that urgent travel was not envisaged.
- 61 Horse shoes had to be removed so that the hoof could be trimmed periodically. If the shoe was not worn it could be replaced. This procedure was called a 'removal'.
- 62 This was before income from the College estates had started to increase

significantly.

- 63 This figure is not always the actual cost which should have been paid. Between 1534-37, the College overpaid by 6d in each year. On each occasion the overpayment was for the cost of back shoes. The difference was to the benefit of the smith. Whether it was intentional, or not, is impossible to tell.
- 64 The supply of wax to the College was discussed in abbreviated form in W. Harwood, 'The College as School: the case of Winchester College' in C. Burgess and M. Heale, (eds), *The Late Medieval English College and its Context* (York, 2008), pp. 230-52.
- 65 Dyer, *Standards of Living*, p. 74.
- 66 Woolgar, *Great Household*, pp. 92-3.
- 67 P Dollinger, *The German Hansa* (London, 1970), p. 219.
- 68 Ibid., p. 436.
- 69 Ibid., p. 316.
- 70 See for example WCM 22125, 1450-51, chapel; WCM 22126, 1451-52, chapel. See also WCM 22116, 1440-41, chapel, WCM 22122, 1447-48, chapel, WCM 22126, 1451-52, chapel.
- 71 WCM 22144, 1474-75, chapel but, see also WCM 22147, 1477-78, chapel, for wax 'Anglie'.
- 72 Full detail is given only for a few isolated years, for example in 1421-22, 134 lb was purchased in London and 56 lb in Winchester (WCM 22101, 1421-22, chapel); in 1426-27, 49 lb wax was bought in Southampton (WCM 22104, 1426-27, chapel); in 1440-41, 28 lb was purchased in London (WCM 22116, 1440-41); in 1441-42, 37 1/2 lb from Winchester. (WCM 22117, 1441-42, chapel).
- 73 Place of origin has been identified, either directly from the accounts, or through the name of the supplier. All other entries concerning wax, which do not specify place of purchase or the supplier, have been entered under 'not specified'. The small quantity purchased from Whitchurch is included under this heading. In some years, the purchasing detail strongly suggests where the wax was being bought but the accounts fail to identify the place. Some years in the early part of the sixteenth century are examples of this. The quantity bought, carriage costs and the cost of purchasing canvas to cover the wax in transit, all strongly suggest that the wax was bought in London. When producing these charts, this assumption has not been made. If it were assumed, then quantities purchased from London from the end of the fifteenth century onwards, would be impressive. The figures do not represent total consumption of wax. For example, old wax, which was bought on occasion for making torches, is not included, nor are candles or torches.
- 74 Between 1464-65 and 1472-73, and between 1474-75 and 1479-80, Winchester was the sole place of supply.
- 75 Only in 1457-58 did the College buy more elsewhere, and on that occasion it was from London.
- 76 While there was a John Chilton in Winchester at this time, it has not been possible to verify Thomas as a local man.
- 77 S.L. Thrupp, *The Merchant Class of Medieval London 1300-1500: With a New Introduction* (Michigan, 1989), pp. 369-70.
- 78 Richard Bartholomew and his sons were a wealthy merchant family from

- Salisbury who were trading at about the turn of the fifteenth century, *Victoria History of Wiltshire*, VI, p. 127.
- 79 M. Threlfall-Holmes, 'The Consumption of Durham Cathedral Priory', in Hicks, *Revolution and Consumption*, p. 145.
- 80 An entry in the account of 1533-34 records the procedures involved when purchasing wax from the capital, and the nature of the expenses incurred. In 1533-34, the College purchased 2C 10 lb wax of Poleyn from London. The cost of the first 1C and 10 lb was £2 6s 51/4d (41/2d per lb or 42s 8d per C). To this cost, a further 21d was added for carriage to Winchester, and 9d was paid for canvas to cover the wax in transit. The total cost, therefore, amounted to £2 8s 111/4d. The second C cost a total of £2 11s 8d (51/2d per lb or 51s 8d per C). On this occasion 4d was paid for 11/2 ells of canvas to cover the wax; 2d was charged for the carriage of the wax from the merchant's house to Holborn, and a further 12d to take it on from London to Winchester. Total cost was £2 13s 2d.
- 81 Harvey, 'Buildings of Winchester College', p. 112.
- 82 SAS, SC5/5/8 Southampton brokage book, 1447-48.
- 83 It could well be that this was the same Bartholomew who supplied the College with wax in the three years, 1492-96 see K.F. Stevens and T.E. Olding (eds), *Brokage Books of Southampton 1477-78 and 1527-28* (Southampton Records Series, 28, 1985), pp. 19, 36.
- 84 J. Lee, 'The Trade of Fifteenth-Century Cambridge and its Region', in Hicks, *Revolution and Consumption*, p. 134.
- 85 Keene, *Survey of Medieval Winchester*, II, p. 1276.
- 86 Thrupp, *Merchant Class of Medieval London*, pp. 369-70.
- 87 J. Chandler, *Endless Street: A History of Salisbury and its People* (Salisbury, 1983), p. 81.
- 88 M.A. Hicks, *Who's who in late medieval England 1272-1485* (London, 1991), pp. 318-19.
- 89 *Victoria History of Wiltshire*, VI, p. 127.
- 90 Dyer, *Trade, Town and the Church*, p. 70.